# TABLE OF CONTENTS

- **Calendar** ................................................................................................................................. 4
- **General Information** ................................................................................................................. 13
- **Student Affairs** .......................................................................................................................... 18
- **Admissions Policies** .................................................................................................................. 24
- **Academic Policies** ..................................................................................................................... 27
  - Class attendance, Changes, Withdrawal, Leave of Absence ......................................................... 27-28
  - Code of Academic Integrity ............................................................................................................ 29-33
  - Academic Forgiveness Policy, Placement ..................................................................................... 33
  - Grades and Policies ....................................................................................................................... 34-37
  - Credit by examinations, Quality Points, Academic Standing ....................................................... 37-38
  - Policy on Student Records ........................................................................................................... 39-40
  - Academic Excellence, Graduation and Graduation Honors ............................................................ 40-41
  - All-College Awards and Prizes ....................................................................................................... 41-48
- **Tuition and Fees** ......................................................................................................................... 49
- **Student Financial Aid** ................................................................................................................ 53
- **Academic Curricula, Degrees, Certificates and Advisement** ......................................................... 62
  - Core Curriculum .......................................................................................................................... 62-65
  - Degree information ....................................................................................................................... 66-67
  - Pre-Professional Programs, Dual Degree Programs and Minors ..................................................... 68
  - Courses of Instruction ................................................................................................................... 69
  - Academic Advisement .................................................................................................................... 70-71
- **College of Arts and Sciences** .................................................................................................... 72
- **Richard J. Wehle School of Business** ....................................................................................... 73
- **School of Education and Human Services** ............................................................................... 75
- **Programs of Study** ..................................................................................................................... 81
  - Accounting/Accounting Information Systems ............................................................................... 81
  - Adolescence Education .................................................................................................................. 93
  - Athletic Training ............................................................................................................................ 104
  - Bioinformatics .............................................................................................................................. 109
  - Biology .......................................................................................................................................... 113
  - Chemistry and .............................................................................................................................. 124
    - Biochemistry ............................................................................................................................. 132
  - Classics ......................................................................................................................................... 138
  - Communication Studies .............................................................................................................. 144
  - Computer Science ....................................................................................................................... 151
  - Creative Writing ............................................................................................................................. 156
  - Digital Media Arts ......................................................................................................................... 159
  - Dual Degree Program (B.A./B.S.-M.B.A.) .................................................................................... 165
  - Economics ...................................................................................................................................... 166
  - Finance ......................................................................................................................................... 173
  - Education ...................................................................................................................................... 177
    - Early Childhood Birth - Gr. 2 ....................................................................................................... 177
    - Childhood Education Gr. 1-6 ...................................................................................................... 179
    - Early Childhood/Childhood ........................................................................................................ 181
    - Special Education Childhood .................................................................................................... 183
  - English .......................................................................................................................................... 189
  - English as a Second Language ....................................................................................................... 197
  - Entrepreneurship .......................................................................................................................... 199
  - Environmental Science ............................................................................................................... 206
  - Environmental Studies ................................................................................................................ 209
  - European Studies .......................................................................................................................... 216
  - Fine Arts ....................................................................................................................................... 219
    - Art History ................................................................................................................................ 219
    - Music ......................................................................................................................................... 223
    - Music Performance .................................................................................................................... 227
    - Music Business .......................................................................................................................... 230
2013 – 2014
ACADEMIC CALENDAR

FALL 2013

August 2013
19 Monday New Faculty Orientation.
20 Tuesday New Faculty Orientation.
26 Monday Classes begin in all divisions.
       First day to apply for a course pass/fail.
30 Friday Last day to apply for a course pass/fail.
31 Saturday Last day to drop/add a class.
       Graduate Education classes in session.

September 2013
2 Monday Labor Day – No classes.
3 Tuesday Withdrawal from classes begins.
       90% withdrawal refund.
       Deadline for submitting Core Curriculum proposals for inclusion in spring.
       2014 schedule.
       First Student Health Warnings for students not in compliance.
10 Tuesday 50% withdrawal refund.
       Second Student Health Warnings for students not in compliance.
17 Tuesday 50% withdrawal refund.
       First Student Health Warnings for students not in compliance.
18 Wednesday Spring 2014 schedule and advisement guide information to department.
       Chairs.
24 Tuesday 25% withdrawal refund.
       Student Health registration cancellations for students not in compliance.
27 Friday Student Progress Report submission begins.

October 2013
1 Tuesday 25% withdrawal refund.
4 Friday Spring 2014 schedules due to associate deans.
8 Tuesday 25% withdrawal refund.
       Student Progress Reports due.
11 Friday Spring 2014 advisement guide information due.
       End of first quarter.
12 Saturday Graduate Education classes in session.
14 Monday Graduate Business classes in session.
15 Tuesday Fall Holiday – No classes.
       25% withdrawal refund.
16 Wednesday Student Progress Report meetings with advisors begin.
19 Saturday Professional Studies Session One ends.
21 Monday Spring 2014 schedule and advisement guide available on the web.
       Professional Studies Session Two begins.
22 Tuesday No withdrawal refund.
25 Friday Deficiency reporting begins.
       Web entry on.
       Student Progress Report meetings with advisors end.
       Drop/Add ends Professional Studies Session Two.
29 Tuesday First Student Health Warnings for students not in compliance Professional Studies Session Two.
November 2013

1 Friday  Deficiency reporting ends.
Web entry off.

2 Saturday  Spring 2014 undergraduate registration begins.
Students with 84.0 or more credit hours earned begin to register.

4 Monday  Deficiency notices mailed to students.
Spring 2014 graduate registration begins.

5 Tuesday  Second Student Health Warnings for students not in compliance.
Professional Studies Session Two.

9 Saturday  Spring 2014 undergraduate registration.
Students with 54.0 – 83.0 credit hours earned begin to register.

11 Monday  Veteran’s Day – Classes in session.

12 Tuesday  Third Student Health Warnings for students not in compliance.
Professional Studies Session Two.

16 Saturday  Spring 2014 undergraduate registration.
Students with 24.0 – 53.0 credit hours earned begin to register.

18 Monday  Summer 2014 schedule information to department chairs.

19 Tuesday  Student Health registration cancellations for students not in compliance.
Professional Studies Session Two.

23 Saturday  Spring 2014 undergraduate registration.
Students with 0.0 – 23.0 credit hours earned begin to register.

27 Wednesday  Thanksgiving. No classes.

28 Thursday  Thanksgiving.

29 Friday  No classes.

30 Saturday  No classes.

December 2013

2 Monday  Classes resume.
First day to withdraw from pass/fail.
Deadline for submitting Core Curriculum proposals for inclusion in summer 2014 schedule.

6 Friday  Undergraduate classes end.
Last day to withdraw from a course.
Last day to withdraw from pass/fail.

7 Saturday  Graduate classes end.

9 Monday  Final Exams begin.
Final grade web entry on.

13 Friday  Undergraduate final exams end.

14 Saturday  Graduate final exams end.

18 Wednesday  Final grades due 9:00 a.m.
Final grade web entry off.

19 Thursday  Final grades available on the web.

24 Tuesday  College holiday shutdown begins.

SPRING 2014

January 2014

2 Thursday  College reopens after holiday shutdown.

13 Monday  Classes begin in all divisions.
First day to apply for a course pass/fail.

17 Friday  Last day to apply for a course pass/fail.
Last day to drop/add a class.

18 Saturday  Graduate Education classes in session.

20 Monday  Martin Luther King Day – No classes.

21 Tuesday  Withdrawal from classes begins.
90% withdrawal refund.
First Student Health Warnings for students not in compliance.

28 Tuesday  50% withdrawal refund.
Second Student Health Warnings for students not in compliance.
February 2014

3 Monday  Deadline for submitting Core Curriculum proposals for inclusion in fall.
           2014 course schedule.

4 Tuesday  50% withdrawal refund.
           Third Student Health Warnings for students not in compliance.

6 Thursday Fall 2014 schedule and advisement guide information to department Chairs.

11 Tuesday 25% withdrawal refund.
           Student Health registration cancellations for students not in compliance.

14 Friday  Student Progress Report submission begins.

15 Saturday Graduate Education classes in session.

17 Monday  President’s Day holiday – No classes.

18 Tuesday President’s Day holiday – No classes.
           25% withdrawal refund.

20 Thursday Fall 2014 schedule due to associate deans.

25 Tuesday 25% withdrawal refund.
           Student Progress reports due.

26 Wednesday Fall 2014 advisement guide information due.

28 Friday  End of third quarter.

11 Tuesday  No withdrawal refund.

12 Wednesday Fall 2014 schedule and advisement guide available on the web.

14 Friday  Deficiency reporting ends.
           Web entry off.

15 Saturday Graduate Education classes in session.

16 Sunday  Drop/Add ends for Professional Studies Session Two.

17 Monday  Spring break begins – No classes.
           Deficiency notices mailed to students.

18 Tuesday  First Student Health Warnings for students not in compliance in Professional Studies Two.

24 Monday  Classes resume.
           Summer 2014 registration begins.

25 Tuesday  Second Student Health Warnings for students not in compliance in Professional Studies Two.

29 Saturday Fall 2014 undergraduate registration begins.
           Students with 72.0 or more credit hours earned begin to register.

31 Monday  Fall 2014 graduate registration begins.

April 2014

1 Tuesday  Third Student Health Warnings for students not in compliance in Professional Studies Two.

2 Wednesday Graduation check-out begins.

5 Saturday  Fall 2014 undergraduate registration.

8 Tuesday  Student Health registration cancellations for students not in compliance in Professional Studies Session Two.

March 2014

3 Monday  Student Progress Report meetings with advisors begin.
           Summer 2014 schedule available on the web.

4 Tuesday  25% withdrawal refund.

7 Friday  Deficiency reporting begins.
           Web entry on.

8 Saturday Professional Studies Session One ends.

10 Monday  Professional Studies Session Two begins.
11 Friday  Ignatian Scholarship Day.  
Students with 42.0 – 71.0 credit hours earned begin to register.

12 Saturday  Fall 2014 undergraduate registration.  
Students with 0.0 – 41.0 credit hours earned begin to register.

17 Thursday  Easter recess begins – No classes.

20 Sunday  Easter.

21 Monday  No classes.
Graduate Business classes in session.

22 Tuesday  Classes resume.

28 Monday  First day to withdraw from pass/fail.

---

**May 2014**

2 Friday  Undergraduate classes end.  
Last day to withdraw from a course.  
Last day to withdraw from pass/fail.

3 Saturday  Graduate classes end.

5 Monday  Final exams begin.  
Final grade web entry on.

9 Friday  Undergraduate final exams end.

10 Saturday  Graduate final exams end.

14 Wednesday  Final grades due 9:00 a.m.  
Final grade web entry off.  
Graduate Commencement Ceremony.

15 Thursday  Final grades available on the web.

16 Friday  Spring Honors Convocation.  
Baccalaureate Mass.

17 Saturday  Undergraduate Commencement Ceremony.

---

**SUMMER 2014**

19 Monday  First undergraduate 5 week summer session begins.

May 2014

19 Monday  First undergraduate 5 week summer session begins.

20 Monday  First Graduate Business 6 week summer session begins.

21 Monday  First Graduate Education 5 week summer session begins.

26 Monday  Memorial Day – No classes.

27 Tuesday  First Student Health Warning for students not in compliance in the first summer sessions.

30 Friday  Graduate Business make-up session for Memorial Day.

---

**June 2014**

3 Tuesday  Second Student Health Warning for students not in compliance in the first summer sessions.

10 Tuesday  Third Student Health Warning for students not in compliance in the first summer sessions.

17 Tuesday  Student Health registration holds placed for students not in compliance in the first summer sessions.

19 Thursday  First undergraduate 5 week summer session ends.

23 Monday  Second undergraduate 5 week summer session ends.

26 Thursday  First Graduate Business 6 week summer session ends.

30 Monday  Second Graduate Business 6 week summer session begins.
Second Graduate Education 5 week summer session begins.
# 2014-2015 Academic Calendar

## July 2014
- **4 Friday** Fourth of July holiday – No classes.
- **8 Tuesday** First Student Health Warning for students not in compliance in the second summer sessions.
- **15 Tuesday** Second Student Health Warning for students not in compliance in the second summer sessions.
- **22 Tuesday** Third Student Health Warning for students not in compliance in the second summer sessions.
- **24 Thursday** Second undergraduate 5 week summer session ends.
- **29 Tuesday** Student Health registration holds placed for students not in compliance in the second summer sessions.
- **31 Thursday** Second Graduate Education 5 week summer session ends.

## August 2014
- **7 Thursday** Second Graduate Business 6 week summer session ends.

## Fall 2014
### August 2014
- **18 Monday** New faculty orientation.
- **19 Tuesday** New faculty orientation.
- **25 Monday** Classes begin in all divisions.
- **29 Friday** Last day to apply for a course through pass/fail program.
- **30 Saturday** Last day to drop/add a course. Graduate Education classes in session.

## September 2014
- **1 Monday** Labor Day Holiday – No classes.
- **2 Tuesday** Withdrawal from classes begins. 90% Withdrawal refund.
- **9 Tuesday** Second Student Health warnings for students not in compliance.
- **16 Tuesday** 50% Withdrawal refund. Third Student Health warnings for students not in compliance.
- **19 Friday** Spring 2015 schedule and advisement guide information to department chairs.
- **23 Tuesday** 25% Withdrawal refund. Student Health registration cancellations for students not in compliance.
- **30 Tuesday** 25% Withdrawal refund.

## October 2014
- **1 Wednesday** Spring 2015 schedule due to associate deans.
- **6 Monday** Spring 2015 advisement guide information due. Faculty progress report submission ends.
- **7 Tuesday** 25% Withdrawal credit.
- **9 Thursday** Student Progress Report meetings begin. End of first quarter.
- **11 Saturday** Graduate Education Classes in session.
- **13 Monday** Fall Holiday – No classes. Graduate Business Classes in session.
14 Tuesday  Fall Holiday – No classes.
25% Withdrawal credit.
18 Saturday  Professional Studies Session One ends.
20 Monday  Professional Studies Session Two begins.
Spring 2015 schedule and advisement guide online.
21 Tuesday  No withdrawal refund.
22 Wednesday  Professional Studies Session One grades due.
24 Friday  Student Progress Report meetings end.
28 Tuesday  First Student Health warnings for students not in compliance in Professional Studies Session Two.
31 Friday  Deficiency Reporting begins.

November 2014
1 Saturday  Spring 2015 Undergraduate registration begins.
Students with 84.0 or more credit hours begin to register.
3 Monday  Spring 2015 Graduate registration begins.
4 Tuesday  Second Student Health warnings for students not in compliance in Professional Studies Session Two.
8 Saturday  Spring 2015 Undergraduate registration.
Students with 54.0 - 83.0 or more credit hours begin to register.
10 Monday  Deficiency Reporting ends.
11 Tuesday  Veteran’s Day – Classes in session.
Third Student Health warnings for students not in compliance in Professional Studies Session Two.
Deficiency notices emailed to students.
15 Saturday  Spring 2015 Undergraduate registration.
Students with 24.0 - 53.0 or more credit hours begin to register.
18 Tuesday  Student Health registration cancellations for students not in compliance in Professional Studies Session Two.
22 Saturday  Spring 2015 Undergraduate registration.
Students with 0.0 - 23.0 or more credit hours begin to register.
24 Monday  Summer 2015 schedule information to department chairs,
26 Wednesday  Thanksgiving Recess begins – No classes.
27 Thursday  Thanksgiving.
28 Friday  No Classes.
29 Saturday  No Classes.

December 2014
1 Monday  Classes resume.
First day to withdraw from pass/fail program.
Deadline for submitting Core Curriculum proposals for inclusion in the summer 2015 course schedule.
5 Friday  Undergraduate classes end.
Last day to withdraw from a class.
Last day to withdraw from pass/fail program.
6 Saturday  Graduate classes end.
8 Monday  Final Examinations begin.
Final grades entry begins.
12 Friday  Undergraduate Final Examinations end.
13 Saturday  Graduate Final Examinations end.
17 Wednesday  Fall 2014 final grades due 9:00 am.
Final grade entry off.
18 Thursday  Fall 2014 final grades available online.
24 Wednesday  Holiday Shutdown begins.
## SPRING 2015

### January 2015

<table>
<thead>
<tr>
<th>Date</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
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<tbody>
<tr>
<td>5</td>
<td>College reopens.</td>
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<tr>
<td>12</td>
<td>Classes begin in undergraduate and graduate divisions.</td>
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<tr>
<td></td>
<td>First day to apply for a course through pass/fail program.</td>
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<td>16</td>
<td>Last day to apply for a course through pass/fail program.</td>
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<td>17</td>
<td>Last day to drop/add a course.</td>
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<td>19</td>
<td>Martin Luther King Day – No classes.</td>
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<tr>
<td>20</td>
<td>Withdrawal from classes begins.</td>
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<tr>
<td></td>
<td>90% Withdrawal refund.</td>
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<td>First Student Health warnings for students not in compliance.</td>
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<td>27</td>
<td>50% Withdrawal refund.</td>
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<td></td>
<td>Second Student Health warnings for students not in compliance.</td>
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### February 2015

<table>
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<th>Date</th>
<th>Monday</th>
<th>Tuesday</th>
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<tbody>
<tr>
<td>2</td>
<td>Summer 2015 schedule due in Student Records Office.</td>
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<tr>
<td>3</td>
<td>50% Withdrawal refund.</td>
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<td></td>
<td>Deadline for submitting Core Curriculum course proposals for inclusion in the Spring 2015 course schedule.</td>
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<td></td>
<td>First Student Health warnings for students not in compliance.</td>
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<tr>
<td>6</td>
<td>Fall 2015 schedule and advisement guide information to department chairs.</td>
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<tr>
<td>10</td>
<td>25% Withdrawal refund.</td>
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<td></td>
<td>Student Health registration cancellations for students not in compliance.</td>
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<tr>
<td>13</td>
<td>Faculty Progress Report submission begins.</td>
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<tr>
<td>14</td>
<td>Graduate Education classes in session.</td>
<td></td>
<td>President's Day Holiday – No classes.</td>
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</tr>
<tr>
<td>16</td>
<td>Graduate Business classes in session.</td>
<td></td>
<td>President's Holiday – No classes.</td>
<td>25% Withdrawal refund.</td>
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<td>17</td>
<td></td>
<td></td>
<td>Fall 2015 schedule due to associate deans.</td>
<td>Fall 2015 Advisement Guide information due.</td>
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<td>18</td>
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<td></td>
<td>50% Withdrawal refund.</td>
<td>25% Withdrawal refund.</td>
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<td>23</td>
<td></td>
<td></td>
<td>50% Withdrawal refund.</td>
<td>25% Withdrawal refund.</td>
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<td></td>
<td>50% Withdrawal refund.</td>
<td>25% Withdrawal refund.</td>
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<td></td>
<td></td>
<td>50% Withdrawal refund.</td>
<td>25% Withdrawal refund.</td>
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<td>26</td>
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<td>50% Withdrawal refund.</td>
<td>25% Withdrawal refund.</td>
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<td>27</td>
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<td>50% Withdrawal refund.</td>
<td>25% Withdrawal refund.</td>
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### March 2015

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<tbody>
<tr>
<td>3</td>
<td>25% Withdrawal refund.</td>
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<tr>
<td>7</td>
<td>Professional Studies Session One First ends.</td>
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<tr>
<td>9</td>
<td>Professional Studies Session two begins.</td>
<td></td>
<td></td>
<td>Summer 2009 schedule online.</td>
<td>No withdrawal refund.</td>
</tr>
<tr>
<td>11</td>
<td>Professional Studies Session grades due.</td>
<td></td>
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<tr>
<td>14</td>
<td>Graduate Education classes in session.</td>
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<tr>
<td>15</td>
<td>Drop add ends for Professional Studies Session Two.</td>
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<tr>
<td>16</td>
<td>Spring recess begins – No classes.</td>
<td></td>
<td>First Student Health warnings for students not in compliance in Professional Studies Session Two.</td>
<td></td>
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</tr>
<tr>
<td>23</td>
<td>Classes resume.</td>
<td></td>
<td>Fall 2015 schedule and Advisement Guide online.</td>
<td>Second Student Health warnings for students not in compliance in Professional Studies Session Two.</td>
<td></td>
</tr>
</tbody>
</table>
30 Monday Summer 2015 registration begins.

Third Student Health warnings for students not in compliance in Professional Studies Session Two.

April 2015

2 Thursday Easter recess begins – No classes.
3 Friday Good Friday – No classes.
6 Monday No classes – Graduate Business classes in session.
Student Health registration cancellations for students not in compliance in Professional Studies Session Two.

7 Tuesday Classes resume.
8 Wednesday Graduation check-out begins.
10 Friday Deficiency entry begins.
11 Saturday Fall 2015 undergraduate registration begins.
Students with 72.0 credit hours or more begin to register.

13 Monday Fall 2015 graduate registration begins.
17 Friday Ignatian Scholarship Day.
18 Saturday Fall 2015 undergraduate registration begins.
Students with 43.0 - 71.0 credit hours or more begin to register.

May 2015

1 Friday Classes end in undergraduate division.
Last day to withdraw from a class.
Last day to withdraw from pass/fail program.

2 Saturday Classes end in graduate division.

4 Monday Final Examinations begin.
Final grade entry begins.

8 Friday Final Examinations end in undergraduate division.

9 Saturday Final Examinations end in graduate division.

13 Wednesday Final grades due 9:00 am.
Final grade entry off.
Graduate Commencement Ceremony.

14 Thursday Final grades available online.

15 Friday Spring Honors Convocation.
Baccalaureate Mass.

16 Saturday Undergraduate Commencement Ceremony.

Summer 2015

18 Monday First undergraduate 5 week summer session begins.
First Graduate Business 6 week summer session begins.
First Graduate Education 5 week summer session begins.

25 Monday Memorial Day – No classes.

26 Tuesday First Student Health Warnings for students not in compliance in the first summer sessions.

29 Friday Graduate Business make-up session for Memorial Day.
June 2015
2 Tuesday  Second Student Health Warnings for students not in compliance in the first summer sessions.
9 Tuesday  Third Student Health Warnings for students not in compliance in the first summer sessions.
16 Tuesday  Student Health registration holds placed for students not in compliance in the first summer sessions.
18 Thursday  First undergraduate 5 week summer session ends.
            First Graduate Education 5 week summer session ends.
22 Monday  Second undergraduate 5 week summer session begins.
25 Thursday  First Graduate Business 6 week summer session ends.
29 Monday  Second Graduate Business 6 week summer session begins.
            Second Graduate Education 5 week summer session begins.

23 Thursday  Second undergraduate 5 week summer session ends.
28 Tuesday  Student Health registration holds placed for students not in compliance in the second summer sessions.
30 Thursday  Second Graduate Education 5 week summer session ends.

August 2015
6 Thursday  Second Graduate Business 6 week summer session ends.

July 2015
3 Friday  Fourth of July holiday observed – No classes.
4 Saturday  Fourth of July Holiday.
7 Tuesday  First Student Health Warnings for students not in compliance in the second summer sessions.
14 Tuesday  Second Student Health Warnings for students not in compliance in the second summer sessions.
21 Tuesday  Third Student Health Warnings for students not in compliance in the second summer sessions.
The College and Its Mission
Canisius College, a Catholic and Jesuit university, offers outstanding undergraduate, graduate and professional programs distinguished by transformative learning experiences that engage students in the classroom and beyond. We foster in our students a commitment to excellence, service and leadership in a global society. The key concepts:

Catholic
Canisius is an open, welcoming university where our Catholic faith and traditions are vitally present and operative. Rooted in the Catholic intellectual tradition, Canisius cultivates human knowledge for the benefit of Church and society.

Jesuit
Founded by the Society of Jesus as a manifestation of its charism, Canisius espouses the Jesuit principles of human excellence, care for the whole person and service to humanity. Jesuit spirituality calls us to seek God in all things and Jesuit education aims to form students who become men and women for and with others.

Transformative Learning and Student Engagement
Steeped in Jesuit ideals, our undergraduate and graduate academic programs are distinguished by academic excellence, student-faculty interaction, and a variety of experiential learning opportunities that engage students and transform the mind and spirit. Our undergraduate core curriculum enriches students’ academic pursuits and delivers a strong foundation in liberal arts, critical thinking, and diversity. Graduate and professional programs promote the application of theory to practice.

Leadership
Benefitting from academically rich, values-based experiences in their interactions with faculty, staff, and community, students learn responsible leadership and develop their ability to inspire others to achieve excellence. At Canisius, students practice these leadership skills in the classroom and through co-curricular activities.

A Vision for the Future
Canisius College will be an outstanding Catholic and Jesuit university that provides its students an exceptional education in a dynamic urban setting. Canisius seeks to:

• Be a vibrant and progressive university committed above all else to academic excellence and the authentic search for truth.
• Embrace its Catholic, Jesuit identity as its defining characteristic and be committed to enhancing and enriching that identity.
• Recruit faculty with outstanding credentials and foster academic excellence through extraordinary teaching and scholarship.
• Embrace its urban roots in Buffalo, New York and become more engaged with the world around it by addressing issues and challenges in the neighborhood, city, region, nation, and world.
• Engage alumni and friends and draw them into a deeper lifelong relationship with the university.
• Be committed to quality and continuous improvement in everything that we do.

As an urban college, Canisius enjoys a special relationship with the city of Buffalo and the Western New York region. 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 in 1870 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 2013 of nearly 5,000 students.

Canisius College 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.
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 225 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 290 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.

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 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.

The Andrew L. Bouwhuis 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 study facilities, computers, a curriculum materials center for K-12 teacher training, group work rooms, enhanced technology areas, and a Tim Horton’s coffee shop. Canisius students have at their disposal an excellent library collection of over 350,000 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 computers and mobile devices on or off-campus. The Library has a variety of equipment (cameras, headsets, microphones, ereaders) available for students to borrow.

Canisius students have convenient and rapid access to over ten 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 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 principal form of Community-Based Learning that is promoted by the Office of Community-Based 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 required or optional. When the service is required it is called service-learning (SL). When the service is optional, it is called a community-based learning option (CBL). 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 http://www.canisius.edu/academics/academic-affairs/community-based-learning/index.dot

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:

- Antwerp, Belgium — University of Antwerp
- Barcelona, Spain—IQS Universidad Ramón Llull
- Beijing, China — The Beijing Center for Chinese Studies
- Berlin, Germany — Berlin School of Economics and Law
- Dortmund, Germany — Technical University of Dortmund
- Eichstaett, Germany — Catholic University of Eichstaett
- Florence, Italy — Lorenzo de’ Medici University
- Galway, Ireland — National University of Ireland at Galway
- Lille, France — The Catholic University of Lille-IESEG School of Management
- Lima, Peru – Universidad del Pacifico
- London, England — London Metropolitan University
- Madrid, Spain — Pontifical University Comillas
- Manilla, Philippines — Ateneo de Manilla
- Oviedo, Spain — University of Oviedo
- Paris, France – IESEG School of Management
- Porto Alegre, Brazil – Federal University Rio Grande do Sul
- Puerto Rico — Sacred Heart University
- Queensland, Australia — University of the Sunshine Coast
Rio de Janeiro, Brazil — Pontifical Catholic University of Rio de Janeiro
Rome, Italy — Lorenzo de’ Medici University
San Salvador, El Salvador — Casa de la Solidaridad, University of Central America
Seoul, Korea — Sogang University
Strasbourg, France — University of Strasbourg, School of Management (one-year dual degree program available)
Tokyo, Japan — Sophia University
Warsaw Poland — Warsaw Academy of Fine Arts

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 2013 - 83.7%
Class of 2014 - 83.5%
Class of 2015 - 82.3%

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) 662-5606
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: (202) 227-5558 (US only), 202-872-4600
5 Commission on Accreditation of Athletic Training Education, 2201 Double Creek Drive, Suite 5006, Round Rock, TX 78684 Telephone: 612-733-9700
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 77711 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) 835-5990
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:
- Athletics Intercollegiate
- Athletics Intramural Athletics
- Campus Programming and Leadership Development
- Counseling Center
- Student Academic Support Services
- International Student Programs
- ALANA Student Center
- Public Safety
- Leadership Development
- Residence Life
- Student Affairs/Community Relations
- Student Center
- Student Health Center

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 – rowing
Women’s – equestrian, field hockey, dance Griff
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 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.
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 BBQ, Semi-Formal 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) and the campus radio station (WCCG), 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 Best of Buffalo and Griffins After Dark. 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 Sabres games, a Broadway musical at Shea’s Center for the Performing Arts and a Ghost Walks Tour of the Theatre District. Our late night weekend programming includes the Canisius Cinema movie night (sponsored by USA) and the Griffins After Dark (GAD) series. "Grocery BINGO, Sumo and Sushi and Texas Hold’em Tournament" are just a few examples of the fun, creative GAD programs offered to students. Free food and beverages are provided, as well as prizes at some of the events.

Additionally, the office sponsors an array of health and wellness programs, leadership development opportunities and events that will enhance your college experience such as New Year, New You speakers, Healthy You workout series, and Leadership Workshops. Additionally, a "leadership library" of books and other resources is available to students. For more information to see what’s happening around Canisius please visit our office or our website at http://www.canisius.edu/campus-life/cpld/leadership-development/

Furthermore, CPLD oversees New Student Orientation for all incoming first-year and transfer students. Orientation is the first step in ensuring a successful college career. With that in mind, time on campus during orientation will give you the opportunity to take part in a number of activities that will introduce you to many aspects of college life. More information on New Student Orientation can be found at http://www.canisius.edu/admissions/undergraduate-admissions/orientation/

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 concerns that may interfere with a student’s academic success and personal growth. In addition to individual and group counseling, counselors are available during and after college business hours for crisis intervention and mental health emergencies. Counselors are also available for consultation and referrals to community resources. Counseling services are of no additional cost to registered students.
Students who access counseling services are assured confidentiality, unless it is apparent that a 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.

Students may schedule appointments by calling the Counseling Center at 716.888.2620. 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.

The Counseling Center offers many educational programs and workshops throughout the academic year for the Canisius College community. Refer to the Counseling Center website for the most current information on programs and services, including online screening programs and self-help information.

International Students
Canisius College welcomes international students and appreciates the cultural diversity they bring to 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 community families and peer mentors for our international students. Other services for international students include an extensive orientation for new students, assistance understanding immigration regulations and workshops on practical training benefits. Global Horizons, a student organization for American and international students, plans additional activities to promote cultural awareness on campus. An example of this is Global Fest, an annual event celebrating different cultures through food tasting, music, performances and crafts from around the world!

International students are required to complete an online semester SEVIS registration form at the start of each semester. This form ensures that ISP properly registers you for the semester in the SEVIS (Student Exchange and Visitor Information System). All international students studying on an F-1 or J-1 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 Office of International Student Programs.

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.

- **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 SASS serves as the college’s advocate for students with disabilities and is responsible for arranging the necessary accommodations. Any student who would like to utilize their accommodations, should contact the office at 716.888.3748.

**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, and registered nurses. Appointments are recommended and can be made 24/7 using My Canisius Health, 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 web site.

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 [https://www.canisius.edu/student_health/](https://www.canisius.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 web site.

**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 website 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 website at http://www.canisius.edu/campus-life/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 at http://www.canisius.edu/SecurityFireReport/. 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.

There are several other housing options available to resident students. Bosch and Frisch Halls, are the traditional residence halls for freshman students. They include double rooms, suites and social lounges with kitchens and lounges on each floor.
Freshman Living Learning Communities
If you want to live and learn with students who share your similar interests, then consider Canisius’ freshman themed housing. Whether your interest lies in science, spirituality or creative writing, themed housing gives you the room to experience independence, a strong sense of community, and opportunities to learn more about and promote common interests.

- **Freshman Science Floor** – Explore the sciences amongst other young pioneers when you move into Frisch Hall’s freshman science floor. Resident students major in a variety of scientific disciplines at Canisius and all have access to live-in mentors: their upper-class science peers.
- **Creative Writing Floor** – Nourish your creativity for writing on the creative writing floor of Frisch Hall. Here, you and your peers share ideas, stories and writing strategies in a collaborative environment. You’re also invited to participate in several co-curricular activities, including community writing hours, coffeehouse readings and writing workshops with professors.
- **Ignatian Floor** – Deepen your commitment to spirituality, community and justice on the Ignatian Floor of Frisch Hall. This living and learning environment challenges you to think about your role in the greater community.
- **Freshman Honors** – Expand your mind and your heart when you live on the freshman honors floor in Dugan Hall. Reserved solely for first-year students in the All-College Honors Program, this living and learning arrangement encourages community and camaraderie among Canisius’ best-of-the-best.
- **The Education & Teaching Floor** – This floor offers students an opportunity to become a leader in the classroom as well as in the community. This likeminded community will provide professional opportunities to students through bringing faculty members to the floor, participation in field trips, and collaboration with other campus organizations focused on education. Members of this floor will also be assigned an upper-class mentor.

Campion Hall which was renovated in 2002-2003, is the Intercultural Living Center and 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** offers students in the College Honors Program a unique opportunity to live in an educational learning environment. This residence 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 and Main-Humboldt Apartments**, features 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 [http://www.canisius.edu/campus-life/residence-life/](http://www.canisius.edu/campus-life/residence-life/)
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. Records of homeschooling and GED must be submitted to the Office of Admission and are evaluated on a case by case basis. 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 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.
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 ensure 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 associate 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 Advisement Office (BA 103). 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 regarding; 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.).

6. Falsifying Academic Documentation and Forgery
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.

9. Aiding and Abetting Academic Dishonesty
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.

First Year Writing Placement

The First-Year Writing program in conjunction with the Student Advisement Center, screens incoming freshmen for appropriate placement in writing courses (FYS 101 or ENG 100). We use high school average, SAT, ACT and high school English and Social Studies Regents scores to determine the placement.

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.
- B+ Good performance.
- B
- B– Adequate performance.
- C+ Adequate performance.
- C– Adequate performance.
- 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 time frame:

- 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 an 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 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:
   a. The grade grievance procedure was not followed.
   b. Prejudice was manifested against either the student or the instructor.
   c. 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 Student Records Office. 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. A free elective course can be approved by the cross registration officer. Students should check with the visiting school for course registration restrictions, for additional requirements such as proof of residency and dates and times when cross registration will be permitted. Cross registration during your final semester at Canisius is discouraged since this may delay your degree conferral.

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 guardian 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 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" through the commencement community page on myCanisius by the deadlines 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 2</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 Student Records Office 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 (truncated at two decimal points) 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, 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. Denske, S.J., Scholastic Achievement Award** is bestowed upon a senior who has transferred to Canisius College and has completed at least 60 credit hours here. This student will have achieved an exceptionally high cumulative average while a student here.

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

**ALANA Achievement Award** is bestowed on a senior because he/she exemplifies the Jesuit value of Magis through academic excellence, character, leadership and dedication to the Canisius community and to others.

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 All-College 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 Multimedia Journalism 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.

The Society of Professional Journalists Award is given annually to the graduating Journalism student whose work best exemplifies the ideals of the program.

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.

Joyce Carol Oates Award is awarded to the graduating students who possess writing in the style of Joyce Carol Oates.

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.

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.

Environmental Studies Program
The Rachel Carson Award for Outstanding Achievement in Environmental Studies is awarded to the graduating student with the highest GPA in the major and shows commitment to promoting environmental awareness in their work and study.

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.

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.

The Professor Walter J. Sharrow Award is presented to a graduating senior who shows great promise as a teacher of history at the K-12 level.
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.

The German Consulate of New York Award for Excellence in German is bestowed on the graduating senior who exemplarily 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 Rev. Paul Nochelski, S.J., Award in Adolescence Education recognizes a graduating student who has demonstrated the hallmark of Fr. Paul Nochelski’s life: a consistent dedication to academic excellence and to the Jesuit values of cura personalis and social justice.

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 Dr. Kimberly A. Leavitt-Noble 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.

Kinesiology Department
John T. Gabby, 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 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.

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.

Sport Management Department
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.

Wehle School of Business Departmental /Program Awards
The Alpha Kappa Psi Scholarship Key is awarded annually to the graduate in the Richard J. Wehle School of Business who has attained the highest scholastic average over a three-year period. The award is made by the Delta Tau Chapter of Alpha Kappa Psi, the oldest national professional fraternity in commerce.

Academic Excellence in Business Award is given each year to a graduating senior who has demonstrated outstanding academic achievement in the Richard J. Wehle School of Business.

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.
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 Department
Thomas J. Schillo Scholarship is awarded to a senior for high standards of academic excellence and personal integrity.

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

Marketing Department
Donald E. Calvert Scholarship is awarded to a senior marketing or management student who displays superior academic and professional skills.

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

TUITION AND FEES

Note: The information in this section is valid only for the academic year May 12, 2013 through May 9, 2014. For the most up-to-date numbers please go to: http://www.canisius.edu/resources/accounts/tuition-fees/

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 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 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
Tuition, fees, room and board are due on the date printed on the bill.
Students must either:
• Pay the bill in full less NYS awards.
• Be enrolled in a payment plan.

Failure to do this by the close of business on the due date printed on the bill will result in the assessment of a $300 Late Fee. The Student Accounts Office is responsible for the assessment and collection of tuition and fees payable to Canisius College. All prior financial obligations to the College must be paid in full before registration will be permitted for any new semester. If payment or other arrangements are not made, the Bursar has the option of canceling the student’s registration.

Canisius College accepts for payment cash, check (US funds only), money orders, wire transfers, and checks over the telephone. Tuition payments can be made online with your checking or savings account. 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. Contact 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.

Checks for tuition payments should be mailed to:
Canisius College
Student Accounts
2001 Main Street
Buffalo, NY 14208

Make your check payable to Canisius College. Your student ID number must be clearly written on the check so that your tuition account is properly credited. All payments are credited on the day received.

Students personally guarantee and are responsible for all obligations to the College for tuition, fees and other charges. Students under the age of majority, under 18 in New York State, have by assumption received the personal guarantee of their parent(s) or guardian unless the student, the parent(s), or guardian notifies the College in writing of their invalidation of the personal and parental assumption of guarantee of all tuition, fees and other charges.

Any student who has an outstanding balance due the College is officially given notice that the College will withhold granting degrees and issuing grades, and discontinues the release of official transcript and academic records until all balances are paid in full. These students will also be subject to additional collection fees, attorneys’ fees, late fees, fines or interest charges on the unpaid
balance. Failure to receive a bill in the mail is not sufficient grounds to appeal College policy. It is the responsibility of the student to check their account balance online and remit timely payment.

Students participating in a tuition remission, exchange, or consortium program are responsible for various charges and fees. Please consult your academic associate dean or financial aid counselor.

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 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 academic 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:

| First week of classes (Drop and Add Week) | 100% |
| Second week of classes                  | 90%  |
| Third and fourth week of classes        | 50%  |
| Fifth week through eighth week of classes | 25%  |
| After eighth week of classes            | None |

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).

No refund of tuition will be granted to a full-time undergraduate student who withdraws from a course but continues attendance in other courses at the college, with the exception of drop-and-add week. Such students will be deemed to retain full-time status. Refunds of tuition will be calculated from the date on which the withdrawal is approved by the appropriate academic dean. The refund will be sent to the student within thirty days of approval. Full tuition and fees will be refunded in the event of cancellation of a student’s enrollment because of an error on the part of the college. Any individual remaining enrolled may terminate the room and board agreement only under special circumstances approved by the Office of Residence Life. The same schedules noted above will be used to determine the final bill for housing costs, as specified in the Room and Board Contract.

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 any 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.
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 Semesters¹
Effective May 12, 2013 through May 9, 2014

<table>
<thead>
<tr>
<th>Room Rates Per Semester</th>
<th>Per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bosch/Frisch – Double</td>
<td>$3,605.00</td>
</tr>
<tr>
<td>Bosch/Frisch - Suite</td>
<td>$4,058.00</td>
</tr>
<tr>
<td>Bosch/Frisch Bathroom Suite</td>
<td>$4,130.00</td>
</tr>
<tr>
<td>Campion Hall - Single</td>
<td>$4,156.00</td>
</tr>
<tr>
<td>Campion Hall (2&amp;3)</td>
<td>$3,595.00</td>
</tr>
<tr>
<td>Delavan Townhouses 2 &amp; 3 person</td>
<td>$4,754.00</td>
</tr>
<tr>
<td>Delavan Townhouses 4 &amp; 5 person</td>
<td>$4,395.00</td>
</tr>
<tr>
<td>Dugan - Suite</td>
<td>$4,187.00</td>
</tr>
<tr>
<td>George Martin House - Double</td>
<td>$3,595.00</td>
</tr>
<tr>
<td>George Martin House - Single</td>
<td>$4,489.00</td>
</tr>
<tr>
<td>Main Humboldt (4-person apt)</td>
<td>$4,395.00</td>
</tr>
<tr>
<td>Village Townhouses</td>
<td>$4,395.00</td>
</tr>
</tbody>
</table>

Semester Fees

| Student Government tax (provides partial support for various student activities) |
|-------------------------------|----------------|
| Full-time students            | $200.00 |
| Part-time students            | $18.00  |

<table>
<thead>
<tr>
<th>College fee (including library, facilities use &amp; ID card)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time students</td>
</tr>
<tr>
<td>Part-time student</td>
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</table>

<table>
<thead>
<tr>
<th>Technology fee</th>
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<tbody>
<tr>
<td>Full-time students</td>
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<tr>
<td>Part-time students</td>
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</tbody>
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<table>
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<tr>
<th>Health fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time students</td>
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<tr>
<td>Part-time students</td>
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### Special Fees

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Collegete Learning Assessment Program (NLAP) LLL 499</td>
<td>$200.00</td>
</tr>
<tr>
<td>Portfolio assessor fee</td>
<td>$100.00</td>
</tr>
<tr>
<td>GRN 497 - Gerontology Practicum Assessment</td>
<td>$40.00</td>
</tr>
<tr>
<td>EDU 122, PED 150 Portfolio (4 years)</td>
<td>$105.00</td>
</tr>
<tr>
<td><strong>Laboratory, Computer Usage, or Cassette Usage Fees:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Laboratory Usage:</strong> Athletic training ATH 132, 231, 232, 331, 332, and 431</td>
<td>$20.00</td>
</tr>
<tr>
<td>ACC 211</td>
<td>$30.00</td>
</tr>
<tr>
<td>Biology</td>
<td>$40.00</td>
</tr>
<tr>
<td>Chemistry (including breakage allowance)</td>
<td>$40.00</td>
</tr>
<tr>
<td>Education</td>
<td>$20.00</td>
</tr>
<tr>
<td>Modern Language</td>
<td>$25.00</td>
</tr>
<tr>
<td>Physics</td>
<td>$35.00</td>
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<tr>
<td>Psychology</td>
<td>$20.00</td>
</tr>
<tr>
<td><strong>Electronic Course Usage</strong> (where required, cost of workbook will be extra)</td>
<td>$225.00</td>
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</tbody>
</table>

### Occasional Fees and Charges

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Fee</th>
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</thead>
<tbody>
<tr>
<td>Application fee</td>
<td>$40.00</td>
</tr>
<tr>
<td>Diploma reprint fee</td>
<td>30.00</td>
</tr>
<tr>
<td>Orientation fee: all new full-time undergraduate freshman students</td>
<td>250.00</td>
</tr>
<tr>
<td>Undergraduate transfer orientation fee</td>
<td>150.00</td>
</tr>
<tr>
<td>Late payment fee</td>
<td>300.00</td>
</tr>
<tr>
<td>ID card late fee or replacement</td>
<td>20.00</td>
</tr>
<tr>
<td>Returned check charges</td>
<td>25.00</td>
</tr>
<tr>
<td>Vehicle registration fee</td>
<td>varies</td>
</tr>
<tr>
<td>Transcript of records, each</td>
<td>N/C</td>
</tr>
<tr>
<td>Thesis binding fee</td>
<td>varies</td>
</tr>
<tr>
<td>Consortium Administration fee, per semester</td>
<td>350.00</td>
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<tr>
<td>Tuition remission and exchange program</td>
<td>varies</td>
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<tr>
<td>Study Abroad Canisius Program</td>
<td>500.00</td>
</tr>
<tr>
<td>Study Abroad Non-Canisius Program</td>
<td>750.00</td>
</tr>
</tbody>
</table>

1. Tuition waiver: see Financial Aid section.
2. On a space-available basis.
3. No fees, except for laboratory, are charged.
4. A detailed description of each plan may be obtained from the Student Accounts Office. First semester freshmen in Bosch, Frisch, or Eastwood may choose either Plan 1 or Plan 2. Freshmen in the second semester may choose either Plan 1, 2, or 3. Upperclassmen in Bosch, Frisch, or Eastwood must be on Plan 1, 2, or 4. Residence students not in Bosch, Frisch, or Eastwood, and commuter students, may choose any of the six options. If Plan 1, 2, 3, or 5 is purchased in the fall semester, it will automatically be re-billed in the spring semester, unless changed during the first two weeks of the spring semester.
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 2013-2014

<table>
<thead>
<tr>
<th></th>
<th>Commuter</th>
<th>Resident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition</td>
<td>$31,990</td>
<td>$31,990</td>
</tr>
<tr>
<td>Fees</td>
<td>$1,342</td>
<td>$1,342</td>
</tr>
<tr>
<td>Books/Supplies</td>
<td>$1,000</td>
<td>$1,000</td>
</tr>
<tr>
<td>Room and Board</td>
<td>$1,500</td>
<td>$12,270</td>
</tr>
<tr>
<td>Personal/Recreation</td>
<td>$700</td>
<td>$700</td>
</tr>
<tr>
<td>Transportation</td>
<td>$800</td>
<td>$800</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$38,032</strong></td>
<td><strong>$48,102</strong></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.
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.

<table>
<thead>
<tr>
<th>New York State Net Taxable Income</th>
<th>TAP Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 - 7,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>$8,000</td>
<td>$4,930</td>
</tr>
<tr>
<td>$9,000</td>
<td>$4,860</td>
</tr>
<tr>
<td>$10,000</td>
<td>$4,790</td>
</tr>
<tr>
<td>$11,000</td>
<td>$4,720</td>
</tr>
<tr>
<td>$12,000</td>
<td>$4,620</td>
</tr>
<tr>
<td>$13,000</td>
<td>$4,520</td>
</tr>
<tr>
<td>$14,000</td>
<td>$4,420</td>
</tr>
<tr>
<td>$15,000</td>
<td>$4,320</td>
</tr>
<tr>
<td>$16,000</td>
<td>$4,220</td>
</tr>
<tr>
<td>$17,000</td>
<td>$4,120</td>
</tr>
<tr>
<td>$18,000</td>
<td>$4,020</td>
</tr>
<tr>
<td>$19,000</td>
<td>$3,900</td>
</tr>
<tr>
<td>$20,000</td>
<td>$3,780</td>
</tr>
<tr>
<td>$21,000</td>
<td>$3,660</td>
</tr>
<tr>
<td>$22,000</td>
<td>$3,540</td>
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<td>$23,000</td>
<td>$3,420</td>
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<tr>
<td>$24,000</td>
<td>$3,330</td>
</tr>
<tr>
<td>$25,000</td>
<td>$3,180</td>
</tr>
<tr>
<td>$26,000</td>
<td>$3,060</td>
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<tr>
<td>$27,000</td>
<td>$2,940</td>
</tr>
<tr>
<td>$28,000</td>
<td>$2,820</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>New York State Net Taxable Income</th>
<th>TAP Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>29,000</td>
<td>$2,700</td>
</tr>
<tr>
<td>30,000</td>
<td>$2,580</td>
</tr>
<tr>
<td>31,000</td>
<td>$2,460</td>
</tr>
<tr>
<td>32,000</td>
<td>$2,340</td>
</tr>
<tr>
<td>33,000</td>
<td>$2,220</td>
</tr>
<tr>
<td>34,000</td>
<td>$2,100</td>
</tr>
<tr>
<td>35,000</td>
<td>$1,980</td>
</tr>
<tr>
<td>36,000</td>
<td>$1,860</td>
</tr>
<tr>
<td>37,000</td>
<td>$1,740</td>
</tr>
<tr>
<td>38,000</td>
<td>$1,620</td>
</tr>
<tr>
<td>39,000</td>
<td>$1,500</td>
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<tr>
<td>40,000</td>
<td>$1,380</td>
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<td>$660</td>
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<tr>
<td>47,000</td>
<td>$540</td>
</tr>
<tr>
<td>48,000 - 60,000</td>
<td>$500</td>
</tr>
<tr>
<td>60,001 - 70,000</td>
<td>$500</td>
</tr>
<tr>
<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 $574 to $5,645 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 Pell Grant recipients are limited to the equivalent of six academic years of full-time study.

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 to complete on-line pre-loan and exit interviews before graduating or withdrawing from the college. Important information concerning repayment schedules and deferment and cancellation provisions will be provided. It is to the student’s advantage to complete these on-line interviews. Students must contact the Financial Aid Office for the 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.

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

<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>
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<td>$2,000</td>
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<td>$97.66</td>
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<td>$4,000</td>
<td>$127.69</td>
<td>40</td>
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<tr>
<td>$6,000</td>
<td>$191.53</td>
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</tr>
<tr>
<td>$7,000</td>
<td>$223.45</td>
<td>40</td>
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<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>
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.

**Merit Scholarships**
Canisius College funds renewable scholarships for incoming freshmen which range from $10,000 to $18,000 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:
1. Be accepted for admission to Canisius; and
2. 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.

**Jesuit Scholarship:** Incoming freshmen graduating from a Jesuit high school are eligible for $1,000 per year for four years.

**Other Programs**
**Higher Education Opportunity Program:** 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.

**Children of Alumni:** Full-time undergraduate students who are children of Canisius alumni are eligible for an alumni grant of $1000 per year for four 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](http://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 $500 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 founded 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 Family Education Loan Program (FFELP) loans offered at Canisius College include:
- Federal Direct Student Loans (subsidized & unsubsidized)
- Federal Parent Loans for Students (Federal PLUS)

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

<table>
<thead>
<tr>
<th>Year</th>
<th>Maximum 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 $4,000 for their first and second years and $5,000 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.

Beginning July 1, 2013, first-time borrowers will be eligible for subsidized Direct loans for a maximum of 150% of the publicized length of their program. For example: A student enrolled in a four-year program may receive subsidized Direct Loans for a maximum of six years. This limitation is not imposed on unsubsidized or PLUS loans. Aggregate limits still apply.

### 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. A loan is usually for a single academic year. An on-line entrance interview must be completed before the loan is disbursed. Prior to graduation or withdrawal, the student must complete an on-line exit interview. The purpose of these interviews is to explain the rights and responsibilities, including repayment obligations.

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.

### 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 check

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. For subsidized loans, there are no interest payments while the student is in school. Students who borrow through the unsubsidized Federal Direct Loan must begin to pay the interest while in school. An origination fee of 1.051 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 4.204 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.

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 semesterly 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 transcripts (parents and student) for the previous calendar year when necessary 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: 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.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits Required</th>
<th>GPA Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2nd</td>
<td>3</td>
<td>1.1</td>
</tr>
<tr>
<td>3rd</td>
<td>9</td>
<td>1.2</td>
</tr>
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<td>4th</td>
<td>21</td>
<td>1.3</td>
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<tr>
<td>5th</td>
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<td>6th</td>
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<tr>
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<tr>
<td>9th</td>
<td>90</td>
<td>2.0</td>
</tr>
<tr>
<td>10th</td>
<td>105</td>
<td>2.0</td>
</tr>
</tbody>
</table>

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)

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits Required</th>
<th>GPA Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2nd</td>
<td>6</td>
<td>1.5</td>
</tr>
<tr>
<td>3rd</td>
<td>15</td>
<td>1.8</td>
</tr>
<tr>
<td>4th</td>
<td>27</td>
<td>2.0</td>
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<td>5th</td>
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<tr>
<td>6th</td>
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<tr>
<td>7th</td>
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<tr>
<td>8th</td>
<td>81</td>
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<tr>
<td>9th</td>
<td>96</td>
<td>2.0</td>
</tr>
<tr>
<td>10th</td>
<td>111</td>
<td>2.0</td>
</tr>
</tbody>
</table>

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.

**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:

<table>
<thead>
<tr>
<th>Semester</th>
<th>Minimum Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>1st</td>
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<td>9th</td>
<td>12</td>
</tr>
<tr>
<td>10th</td>
<td>12</td>
</tr>
</tbody>
</table>

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 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 warning following their first adverse determination of satisfactory progress. During this warning 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 warning must be made a part of his or her record.” (Source: official Federal Regulations.) A one-time warning period is defined as one academic semester.

Students not meeting satisfactory academic progress or program pursuit requirements will be placed on financial aid warning status for the ensuing semester of the student’s enrollment. Students will be allowed to retain their financial aid during the warning semester.

Financial aid suspension will occur following the semester of warning 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 increase their G.P.A and/or their total credits earned sufficiently to restate their eligibility for financial aid. However, courses taken in the summer will not resolve a student’s unsatisfactory pursuit. 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 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) Aid to Part-Time Students (APTS)
- 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. Summer courses will not resolve a student's unsatisfactory pursuit.
ACADEMIC CURRICULA

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 Core Curriculum is rooted in the humanistic ideals of the Catholic intellectual tradition and Jesuit pedagogy with its emphases on academic excellence, the dialogue of faith and reason, and service to humanity.

The Core Curriculum seeks to provide Canisius students with a strong foundation in the humanities and liberal arts as the first step in a transformative experience that will expose them to the richness of human diversity and infuse them with a sense of service in the cause of justice for all peoples, but especially for the poor and marginalized of the world.

At the same time, the Core Curriculum seeks to develop student skills in writing, oral communication, information literacy, and critical thinking that are essential for success in life regardless of the profession one chooses to pursue.

Lastly, the Core Curriculum seeks to engage Canisius students with the spiritual dimension of human life in the hope that this will enable them to seek God in all things and to become men and women for and with others in the pursuit of wisdom and magnanimity.

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 knowledge 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 sciences.

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 Knowledge 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 and 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 to 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 and 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 http://www.canisius.edu/academics/core/

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:
### Degree Programs:

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

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<thead>
<tr>
<th>Subject</th>
<th>Code</th>
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<tbody>
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<td>Art History</td>
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<td>Communication Studies</td>
<td>0401</td>
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<td>Creative Writing</td>
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<td>Criminal Justice</td>
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<td>Music</td>
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<td>Sociology and Anthropology</td>
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<td>Urban Studies</td>
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**Arts and Sciences – Bachelor of Science Degree:**

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<td>Biochemistry</td>
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<td>Bioinformatics</td>
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<td>Biology</td>
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<td>Chemistry</td>
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<td>Computer Science</td>
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<td>Digital Media Arts</td>
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<td>Medical Laboratory Science</td>
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<td>Specialized Studies</td>
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<td>Professional and Technical Studies</td>
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### Degree Programs:

#### Education and Human Services – Bachelor of Arts Degree:
- Biology “7-12” 10401-01
- Chemistry “7-12” 1905-01
- English “7-12” 1501-01
- French “7-12” 1102-01
- German “7-12” 1103-01
- Spanish “7-12” 1105-01
- Mathematics “7-12” 1701-01
- Physics “7-12” 1902-01
- Social Studies “7-12” 2201-01
- Early Childhood Education 0823
- Childhood Education 0802
- English 0804-01
- Social Studies 0804-02
- Mathematics 0804-03
- Science 0804-04
- French 0804-05
- German 0804-06
- Spanish 0804-07

#### Education and Human Services – Bachelor of Science Degree:
- Athletic Training 1299-30
- Health and Wellness 1299-30
- Physical Education/Health Education 0835
- Physical Education Sport Studies 0835
- Special Education/Childhood 0808
- Sport Management 0599

#### Business Administration – Bachelor of Science Degree:
- Accounting 0502
- Accounting Information Systems 0502
- Economics 0517
- Entrepreneurship 0506
- Finance 0504
- Information Systems 0702
- International Business 0513
- Management 0506
- Marketing 0509
- Accounting/Professional Accounting (150 hour Program) 0502

#### Arts and Sciences – Associate of Arts Degree:
- Humanities (General) 5649
- Social Sciences 5622

#### Certificates:
- Women’s Studies 2299
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:

• Pharmacy 2+4*
• Osteopathic Medicine*
• Dental Medicine*
• Pre-Medicine
• Pre-Dentistry
• Pre-Law
• Pre-Veterinary
• Pre-Pharmacy
• Pre-Engineering
  *Joint Degree Program

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.

Minors
Minors are available in the following areas:
Animal Behavior
Anthropology
Anthrozoology
Arabic, Language and Culture
Art History
Biblical Studies
Bioinformatics
Biology
Business
Business Management
Catholic Studies
Cell and Molecular Biology
Chemistry
Child, Family & Community Studies
Christian History, Thought & Ethics
Classics Departmental
Classics Interdepartmental
Clinical Psychology
Computer Forensics
Computer Science
Computer Theory
Creative Writing
Criminal Justice
Economics
English
Environmental Biology
Ethics
European Studies
Exercise Science
Fine Arts
Forensic Psychology
French Language and Culture
General Psychology
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 2013-2014 and 2014-2015 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 2013-2014. 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' responsibility 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
- Communication Studies
- Computer Science
- Creative Writing
- Criminal Justice
- Digital Media Arts
- Economics
- English
- Environmental Science
- Environmental Studies
- European Studies
- French
- German
- History
- International Relations
- Journalism
- Latin American Studies
- Mathematics and Statistics
- Medical Laboratory Science
- Music
- Philosophy
- Physics and Pre-Engineering
- Political Science
- Psychology
- Religious Studies and Theology
- Sociology
- Spanish
- Specialized Studies
- Urban Studies

A certificate program in Women’s Studies is offered in the College of Arts and Sciences.

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. Through 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 A. Shick, Interim Dean; Gregory R. Wood, Associate Dean; Laura A. McEwen, Assistant Dean and Director, Graduate Business Programs; Stephanie Cattarin, Director, Center for Professional Development; and Melinda 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>
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<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>
</tr>
<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 650 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 Laura McEwen, assistant dean of business.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</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></td>
<td>Business elective: one course (ECO 102, 256; FIN 311; MGT 325, 360, 364, 370; MKT 320, 351, 352)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total** | *(7 courses)* | **21 credits**

**Professional Student Organizations**
The Wehle School of Business sponsors a number of professional student organizations that provide a range of professional development opportunities for students preparing for careers in business. These organizations host workshops, seminars, networking events and tours of local businesses. Many of the student groups engage in community based projects, using their business skills to help others and create a positive impact on the local economy. Some of the student groups participate in competitions with other colleges from across the country. These competitions give students an opportunity to develop their skills and gain national recognition. The professional student organizations in the Wehle School of Business have been recognized by a number of external industry groups for their exceptional programming, leadership and success in competitions. Students are encouraged to become active in a professional student group early in their college career. Current student groups include: The American Marketing Association, Collegiate Entrepreneurs’ Organization (CEO), Enactus, The Accounting Society, Society for Human Resource Management (SHRM), Association for Operations Management, Quad Gear and the Economics/Finance Club.
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 7 through 9.

Undergraduate degree programs in adolescence education lead to teacher certification (grades 7 through 12) in one of nine academic disciplines: biology, chemistry, physics, English, mathematics, social studies, French, German and Spanish. Candidates enrolled in adolescence 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 offers a major program in athletic training as well as physical education and sports studies, and health and wellness.

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, TESOL and educational technologies and emerging media.

The School of Education and Human Services also offers graduate professional studies programs in Nutrition, community and school health, respiratory care and health information technology. 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 can be found on the following link: http://www.canisius.edu/education/outcomes/
Conceptual Framework

Introduction
Central to our conceptual framework is a symbol of infinity, representing four interrelated and evolving characteristics: Knowledge, Service, Professionalism, and Leadership. These elements are situated within the overarching Ignatian vision and Jesuit educational principles. These values include:

- **Cura personalis,** concern for individuals, and desire to educate the whole person;
- **Magis,** or seeking the greater good, striving for excellence and desire to have our candidates reach one's full potential;
- **Sharing,** one's gifts in the service for and with others in the pursuit of social justice;
- **Contemplation in action,** that is being a reflective learner & educator striving for ethical decision-making and mindful creative solutions to today's issues in Education.

To this end, with a vision of P-16 partnership, we strive to engage our students in their chosen field of study. As stated by Rev. Peter-Hans Kolvenbach, S.J., Superior General of the Society of Jesus (*The Service of Faith and the Promotion of Justice in American Jesuit Higher Education*, 2000), “Students, in the course of their formation, must let the gritty reality of this world into their lives, so they can learn to feel it, think about it critically, respond to its suffering and engage it constructively” (p. 8).

Mission

Mission Statement of the School of Education and Human Services
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 demonstrated through their own *cura personalis*, work towards 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.

Goal Statement

Candidates in the SEHS will embody the characteristics of a Canisius College graduate. Our candidates will meet the college, state, and national standards (New York State, INTASC, NBPTS, NCATE and Middle States). Candidates will also demonstrate proficiencies with indicators articulated by the Specialty Professional Association (SPA) of their discipline.

Dispositions

NCATE defines dispositions as, “Professional attitudes, values, and beliefs demonstrated through both verbal and non-verbal behaviors as educators interact with students, families, colleagues, and communities. These positive behaviors support student learning and development”. In addition to the fundamental beliefs in fairness and the understanding that all students can learn, Canisius College SEHS will foster the following dispositions in its candidates:

- **Enthusiastic** – Demonstrates initiative and commitment towards the educational pursuit
- **Just** – Appreciates value for human diversity and the ideal of fairness
- **Caring** – Demonstrates an attitude of empathy, tolerance and acceptance of others
- **Ethical** – Models behavior embodied in the mission of the School and College, and shows integrity in professional practice
- **Responsible** – Demonstrates personal and professional accountability for themselves and the profession

The SEHS graduate candidate will embody the SEHS dispositions with maturing expertise. With emphasis on the movement from theory to practice, our graduate programs teach candidates to embrace leadership roles that influence classrooms, schools, districts, and communities.

Candidate Proficiencies

The successful Canisius College graduate will demonstrate proficiency in the knowledge, skills and dispositions delineated by the standards outlined by their program, NCATE, Middle States, and specialized professional association (SPA).
Assessment System

The School of Education and Human Services' assessment system utilizes four transition points that are common to all programs at the undergraduate and graduate levels. The unit assessment system serves to evaluate performance of the SEHS, its programs and candidates, relative to the conceptual framework, institutional, state, national, and professional standards.

Programs in the Canisius College SEHS provide candidates with the content, pedagogical, and professional knowledge, skills, and dispositions necessary for quality performance in their field. These fields include education, counseling, educational leadership, health, and physical education. Canisius has made a college-wide commitment to equipping candidates with the knowledge to use technology effectively to enhance learning. The College's strategic plan recognizes the importance of technology integration and candidates are prepared to become more competent with tools of technology to effectively teach, counsel, and administer programs for diverse individuals and to remain current with the research on the field. The SEHS goals regarding technology integration is aligned with the NCATE accreditation standards, which state that teacher candidates need to have opportunities in the classroom and during field experience to utilize technology to enhance learning.

Professional development schools are partners in an expanded and purposeful learning community. The SEHS is jointly committed to, and mutually benefits from, improving educational outcomes for P-16 students. In the spirit of cura personalis, our candidates, faculty, and partners strive to foster relationships that positively impact students in the schools, the College, and the community. In caring for personal relationships, human dignity and individual differences are acknowledged and valued.

Through their coursework, field experiences and clinical practice, candidates will be prepared and supported by college faculty and school partners to engage in self-directed inquiry, problem-solving, critical thinking, and discourse as well as reflection on real world situations.

Cochran-Smith and Lytle (Relationships of Knowledge and Practice. Teacher Learning in Communities 1999), in their detailed account of prevalent underlying conceptions of teacher learning, propose an inquiry stance that acknowledges the complex relationships between theory and practice that are at the center of teacher preparation. They conclude that content knowledge and pedagogy are linked to very basic questions and emphasize that individuals must face such questions, as “local knowledge” that evolves from problem solving and leads to “knowledge of practice”. They state:

...constructing local knowledge is understood to be a process of building, interrogating, elaborating, and critiquing conceptual frameworks that link action and problem posing to the immediate context as well as to larger social, cultural, and political issues. Implicit in this process is a set of questions that function as lenses for seeing and making sense of practice broadly construed: Who am I as a teacher? What am I assuming about this child, this group, and this community? What sense are my students making of what is going on in this classroom? How do the frameworks and research of others inform my own understandings? What are the underlying assumptions of these materials, texts, tests, and curriculum frameworks, and school reporting documents? What am I trying to make happen here and why? How do my efforts as an individual teacher connect to the efforts of the community and to larger agendas for school and social change?

The acquisition and application of the knowledge, skills, and dispositions required to meet college, local, state and national professional standards are recursive as illustrated in our symbol of infinity. These dispositions embrace the charisms, or values of Jesuit educational philosophy.

Service

Candidates in the SEHS are provided with a variety of service opportunities to enable them to learn from populations that are ethnically, racially, culturally, religiously, and intellectually diverse. Service learning opportunities embedded in the academic program are intended to “emphasize the accomplishment of tasks which meet human needs in combination with conscious educational growth” (Combining Service and Learning: An Introduction Kendall, 1990, p. 20).
Service initiatives within candidates’ course work provide them with a healthy forum of exchange among their classmates and professors. This model has been shown to increase the value of the experience for the student and enhance the relationship between the academic material and the service experience (How Service Learning Affects Students, Astin, Vogelgesang, Ikeda, & Yee, 2000).

Astin, Vogelgesang, Ikeda, & Yee (How Service Learning Affects Students, 2000) have demonstrated that service participation positively affects important outcome measures including GPA, critical thinking skills, a commitment to activism and the promotion of racial understanding, leadership activities, interpersonal skills, choice of a service career, and plans to participate in service after college. Other benefits include the development of citizenship skills and a higher regard for social responsibility and diversity (Educating Tomorrow’s Citizens Through Service-Learning, Keith, 1994).

Throughout their coursework, field experiences, and clinical practice candidates are encouraged to seek academic excellence for themselves and for the students they teach. During their programs of study, candidates engage in and promote authentic learning experiences, support the social and emotional development of students, and demonstrate a commitment to social justice in environments that foster a culture of care, respect for diversity and the dignity of all.

Through careful placement in field-based practica secured in collaboration with the college and its professional development schools and other partners, our candidates learn to plan, act, reflect upon and revise curriculum and service projects. Under the guidance and mentorship of field-based professionals who model the knowledge, skills, and dispositions required to ensure equity in education, our candidates develop the skills and sensitivities necessary to promote social justice and cultivate an appreciation for diversity.

Service provides opportunities for our candidates, faculty, and community partners to actively live out, and share the knowledge, skills, and dispositions gained in the classroom. In building relationships beyond the classroom, one can seek the greater good (magis) in service to others, supporting the potential, and uniqueness of people.

Professionalism

The SEHS seeks to promote a high level of professionalism and to share a mutual commitment to achieve the objectives of all partners.

Candidates benefit from the acquisition of self-reflection as a habit of mind, continuously assessing and refining their professional practice (The Reflective Practitioner, Schon, 1983) as they construct a rich repertoire of research-based knowledge, skills, and attitudes for effective candidate and/or counseling instruction and assessment, ensuring that all students and/or clients have optimal opportunities to learn and grow (Professionalism Education, Schein, 1973).

In the context of coursework, community based research and practice, faculty model and nurture the dispositions required for candidates to develop projects, learn with and from others, form a professional network of colleagues, and assume positions of responsibility.

Course work continuously presents research bases for theories and practice and develops candidates' visions of ways in which they can contribute to the body of knowledge in their field. Those directly and indirectly involved in teacher education believe that each candidate’s professional growth is ongoing and characterized by a spirit of service, professionalism, and advocacy.

Bridging theory to practice, candidates are integrated into authentic environments and provided “with real responsibilities, the opportunity to make decisions and to develop skills, to analyze student needs and to adjust practices using student performance data while receiving continuous monitoring and feedback” from faculty and p-12 mentors (Transforming teacher education through clinical practice: A national strategy to prepare effective teachers, p.10, BRR). Field experience and clinical practice embedded throughout the preparation program provide opportunities for candidates to become contributing and collaborative members of learning communities, and a variety of contexts in which the candidate can develop complex analytical and practical skills (Transforming teacher education through clinical practice: A national strategy to prepare effective teachers, p. 10 BRR). Candidates understand that their decisions, actions, and reactions are context dependent and student/client driven. As professionals, they involve colleagues, parents and the community in the responsible care and development of each participant.
Candidates are encouraged to embark on a lifelong commitment to their profession. They are encouraged to join professional organizations and actively participate in professional conferences and research (Collaboration, Community, and Communication: Modes of Discourse for Teacher Research, Donoahue, 1996; Reliving the learning: Learning from classroom talk and texts, Patterson, 1996; Teachers as researchers: Reflection and action, Patterson, Santa, Short, & Smith, 1993).

As professionals in their fields, Canisius College candidates will internalize the processes of reflective practice, and utilize multiple sources of information to inform educational decision-making that meets the needs of the individuals and communities in which they are engaged. Effective leaders, make these ethical choices in a spirit of cura personalis, when perhaps less socially responsible decisions might be easier.

Effective instructional planning demonstrates the candidate’s ability to integrate outcome based, state, national, and professional standards in their instruction. Assessment driven instruction is evidenced in classroom practice.

Leadership
Candidates become adept at applying their acquired knowledge in the process of evaluating their own professional performance and decision-making with respect to its impact on students and/or clients, organizations, and the wider community (Effective teaching methods, Borich, 1996). Candidates accept that, as professionals, they are responsible for the long-term social and ethical implications of their performance and decision-making. The unit recognizes that the professionals it prepares for the future must be able to effectively use technology, analyze situations, set appropriate and attainable goals as well as plan and monitor actions that will lead to the accomplishment of these goals. They must be able to efficiently evaluate results, reflect on outcomes, and use their conclusions to improve practice. Throughout this activity candidates must maintain the standards of professional conduct (Staff development, innovations, and institutional development, Fullan, 1990).

Through coursework, field experiences and clinical practice, candidates learn that education reform is ongoing and best accomplished by committed and well-informed practitioners (Synthesis of research on good teaching, Porter & Brophy, 1988). Course work continuously presents research bases for theories and practice and develops candidates’ vision of themselves as change agents responsible for contributing to the body of knowledge in their field. Those directly and indirectly involved in teacher education believe that each candidate must be prepared as a leader whose professional growth is ongoing and characterized by a spirit of service, professionalism, and advocacy.

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, NYS teaching standards, 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 - Program Entrance:
- Acceptance to the college: SAT score; high school GPA

Assessment at Transition Point 2 - Prior to clinical practice:
Successful final portfolio review(remove EDY 432,EDE 432, EDS 432, SPE 432/433, PED 441)
- Cumulative GPA of 2.5 or higher;
- Grade of C or higher in all education courses
- Grade of C or higher in content courses for candidates seeking certification at the middle childhood or adolescence level
- Satisfactory performance in field placements
Assessment at Transition Point 3 – After clinical practice:
Successful final portfolio review (remove EDY 450, EDE 450, EDS 460, SPE 450 and PED 470)
- Satisfactory integrated portfolio reflection
- Cumulative GPA of 2.0 or higher
- Grade of C or higher in all education courses
- Grade of C or higher in content courses for candidates seeking certification at the middle childhood or adolescence level
- Satisfactory performance in field experience II placements

Assessment at Transition Point 4 – Program Completion:
- Cumulative GPA of 2.0 or higher
- Grade of C or higher in all education courses
- Grade of C or higher in content courses for candidates seeking certification at the middle childhood or adolescence level
- Successful completion of all program requirements

All candidates for teaching certification are required to develop a professional portfolio during their program of study. Specific common assignments from selected courses are compiled into an assessment portfolio on Taskstream 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.

Certification
To obtain initial teacher certification, candidates must pass the examinations required by the New York State Education Department. Please use the following link for the most up to date testing requirements: http://www.nystce.nesinc.com/NY_annProgramUpdate.asp

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.
Accounting Information Systems
Chair: Joseph B. O'Donnell, PhD

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 a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/ugrad-accounting/index.dot

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 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 of the New York State C.P.A. 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. This program meets the education requirements of the state of New York for C.P.A. licensure and is described in the Graduate Catalog.

6. Master of Science in Forensic Accounting. This program meets the education requirements of the state of New York for C.P.A. licensure and is 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.

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/ugrad-accounting/learning-goals-objectives/

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

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 the four year undergraduate accounting and accounting information systems majors. Students may graduate with more but not less than 120 credit 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 a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/ugrad-accounting/index.dot

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:
   a. a minimum cumulative average of 2.75 in all accounting courses taken at Canisius, including all junior accounting courses;
   b. a minimum cumulative overall average of 3.0 by the second semester of the junior year;
   c. 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 C.P.A. 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. This program meets the education requirements of the state of New York for C.P.A. licensure and is described in the Graduate Catalog.

6. Master of Science in Forensic Accounting. This program meets the education requirements of the state of New York for C.P.A. licensure and is 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.

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/ugrad-accounting/learning-goals-objectives/

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 Curriculum

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

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.

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Mat 105</td>
<td>Finite Mathematics and Calculus for the Non-Sciences or Calculus I or Calculus for Business I</td>
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<td>MAT 106</td>
<td>Finite Mathematics and Calculus for the Non-Sciences or Calculus I or Calculus for Business I</td>
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<td>MAT 111</td>
<td>Calculus I</td>
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<tr>
<td>MAT 115</td>
<td>Arts and Sciences Electives</td>
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<tr>
<td>ENG 389</td>
<td>Business Communications</td>
<td>3</td>
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<tr>
<td>ACC 211</td>
<td>Principles of Accounting I</td>
<td>3</td>
</tr>
<tr>
<td>ACC 212</td>
<td>Principles of Accounting II</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
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<td>ECO 102</td>
<td>Principles of Microeconomics</td>
<td>3</td>
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<tr>
<td>ECO 255</td>
<td>Business Statistics I</td>
<td>3</td>
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<tr>
<td>ECO 256</td>
<td>Business Statistics II</td>
<td>3</td>
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<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>
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<tr>
<td>MGT 325</td>
<td>Operations Analysis for Business</td>
<td>3</td>
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<td>MGT 446</td>
<td>Managerial Policy Strategy</td>
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<td>MKT 201</td>
<td>Principles of Marketing</td>
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Accounting and Accounting Information Systems Programs

150 Hours - B.S. in Professional Accounting

Course Requirements: In addition to the common liberal arts and business courses, students in this program will take:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 301-302</td>
<td>Intermediate Accounting I and II</td>
<td>6</td>
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<tr>
<td>ACC 303</td>
<td>Cost Accounting</td>
<td>3</td>
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<tr>
<td>ACC 307</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACC 415</td>
<td>Basic Taxation</td>
<td>3</td>
</tr>
<tr>
<td>ACC 416</td>
<td>Advanced Taxation</td>
<td>3</td>
</tr>
<tr>
<td>ACC 421</td>
<td>Advanced Accounting Problems</td>
<td>3</td>
</tr>
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<td>ACC 425</td>
<td>Audit Theory and Practice</td>
<td>3</td>
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<td>ACC 426</td>
<td>Information Systems Auditing</td>
<td>3</td>
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<tr>
<td>ACC 451</td>
<td>Seminar in Accounting Theory</td>
<td>3</td>
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<tr>
<td>LAW 371</td>
<td>Business and Commercial Law</td>
<td>3</td>
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<td>LAW 372</td>
<td>Business Organizations and Commercial Paper</td>
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<td></td>
<td>Accounting Electives</td>
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<td>Business Elective</td>
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Total 150 or 151 Credits
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<td>ENG 101</td>
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<td>MAT 106 or Elective</td>
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<tr>
<td>ECO 101</td>
<td>3 credits</td>
<td>ECO 102</td>
</tr>
<tr>
<td>RST 101</td>
<td>3 credits</td>
<td>Business International Requirement</td>
</tr>
<tr>
<td>Business International Requirement</td>
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<td>3 credits</td>
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<td><strong>Total</strong></td>
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<tr>
<td><strong>Sophomore Year</strong></td>
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</tr>
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<td>MGT 101</td>
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<td>MKT 201</td>
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<tr>
<td>ACC 211</td>
<td>3 credits</td>
<td>ACC 212</td>
</tr>
<tr>
<td>ECO 255</td>
<td>3 credits</td>
<td>ECO 256 (Statistics)</td>
</tr>
<tr>
<td>ISB 101</td>
<td>3 credits</td>
<td>ACC 307</td>
</tr>
<tr>
<td>Field of Knowledge (History)</td>
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<td>Field of Knowledge Arts</td>
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<td><strong>Total</strong></td>
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<td>15 credits</td>
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<td><strong>Junior Year</strong></td>
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<td>ACC 302</td>
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<tr>
<td>ACC 303</td>
<td>3 credits</td>
<td>ENG 389</td>
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<tr>
<td>FIN 201</td>
<td>3 credits</td>
<td>Capstone</td>
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<tr>
<td>LAW 371</td>
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<td>Field of Knowledge (Philosophy)*</td>
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<td>Field of Knowledge (Religion)</td>
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<td>Field of Knowledge (Science)</td>
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<td><strong>Total</strong></td>
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<td><strong>Senior Year</strong></td>
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<tr>
<td>MGT 325</td>
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<td>ACC 415</td>
<td>3 credits</td>
<td>ACC 425</td>
</tr>
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<td>ACC 421</td>
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<td><strong>Fifth Year</strong></td>
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<tr>
<td>ACC 426</td>
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<td>ACC Elective**</td>
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<tr>
<td>BUS Elective</td>
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<td>Elective</td>
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</table>

Total 150 or 151 credits

* Ethics course
**Acc 429 or 441 recommended
150 Hours – B.S./M.B.A.A.
Course Requirements: In addition to the common liberal arts and business courses, students in this program will take:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 301-302</td>
<td>Intermediate Accounting I and II</td>
<td>6</td>
</tr>
<tr>
<td>ACC 303</td>
<td>Cost Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 307</td>
<td>Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>LAW 371</td>
<td>Business and Commercial Law</td>
<td>3</td>
</tr>
<tr>
<td>LAW 372</td>
<td>Business Organizations and Commercial Paper</td>
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Graduate Portion

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>MBA 502</td>
<td>Organizational Behavior</td>
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<tr>
<td>MBA 507</td>
<td>Operations</td>
<td>3</td>
</tr>
<tr>
<td>MBA 508</td>
<td>Corporate Finance</td>
<td>3</td>
</tr>
<tr>
<td>MBA 620/621</td>
<td>Finance Elective</td>
<td>3</td>
</tr>
<tr>
<td>MBA 630</td>
<td>Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MBA 641</td>
<td>Human Resources</td>
<td>3</td>
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<tr>
<td>MBA 690</td>
<td>Strategic Management</td>
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</tr>
<tr>
<td>MBA 715</td>
<td>Basic Taxation</td>
<td>3</td>
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<tr>
<td>MBA 716</td>
<td>Advanced Taxation</td>
<td>3</td>
</tr>
<tr>
<td>MBA 721</td>
<td>Advanced Financial Reporting</td>
<td>3</td>
</tr>
<tr>
<td>MBA 725</td>
<td>Auditing Theory and Practice</td>
<td>3</td>
</tr>
<tr>
<td>MBA 726</td>
<td>Information Systems Auditing</td>
<td>3</td>
</tr>
<tr>
<td>MBA 729</td>
<td>Not for Profit Accounting</td>
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</tr>
<tr>
<td>MBA 751</td>
<td>Accounting Theory and Research</td>
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<td>MBA Elective</td>
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<tr>
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Note: Students do not take MGT 325 or 446
## Typical Schedule:

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<th>Spring</th>
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<tbody>
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<td><strong>Freshman Year</strong></td>
<td></td>
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<tr>
<td>FYS 101</td>
<td>ENG 101</td>
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<td>MAT 105 or MAT 111</td>
<td>PHI 101</td>
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<td>ECO 101 (Macro)</td>
<td>MAT 106 or Elective</td>
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<td>Total 15 or 16 credits</td>
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<tr>
<td><strong>Sophomore Year</strong></td>
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<td>MGT 101</td>
<td>MKT 201</td>
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<tr>
<td>ACC 211</td>
<td>ACC 212</td>
</tr>
<tr>
<td>ECO 255</td>
<td>ECO 256 (Statistics)</td>
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<tr>
<td>ISB 101</td>
<td>ACC 307</td>
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<td>Field of Knowledge (History)</td>
<td>Field of Knowledge (Arts)</td>
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<tr>
<td><strong>Junior Year</strong></td>
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<td>ACC 301</td>
<td>ACC 302</td>
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<td>ACC 303</td>
<td>ENG 389</td>
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<td>FIN 201</td>
<td>Core Capstone</td>
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<td>LAW 371</td>
<td>LAW 372</td>
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<td>Field of Knowledge (Philosophy)</td>
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<td><strong>Senior Year</strong></td>
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<td>MBA 715</td>
<td>MBA 716</td>
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<td>MBA 721</td>
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<tr>
<td>MBA 751</td>
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<td><strong>Fifth Year</strong></td>
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<td>MBA Elective</td>
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<td>MBA 641</td>
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* Ethics course

Total 150 or 151 Credits
120 hours – B.S. in Accounting
Information Systems
Course Requirements: In addition to the common liberal arts and business courses, students in this program will take:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 301</td>
<td>Intermediate Accounting I</td>
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<td>Cost Accounting</td>
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<td>Accounting Information Systems</td>
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<td>ACC 331</td>
<td>E-Business</td>
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<td>ACC 340</td>
<td>Database Management</td>
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<td>Information Systems Auditing</td>
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<td>ACC 452</td>
<td>Enterprise Systems</td>
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<td>MGT 370</td>
<td>Managerial Environment</td>
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**Typical Schedule:**

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<td>FYS 101</td>
<td>3 credits</td>
<td>ENG 101</td>
</tr>
<tr>
<td>MAT 105 or</td>
<td>3 or 4 credits</td>
<td>PHI 101</td>
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<tr>
<td>MAT 111 or MAT 115</td>
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<td>MAT 106 or Elective</td>
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<tr>
<td>ECO 101 (Macro)</td>
<td>3 credits</td>
<td>ECO 102 (Micro)</td>
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<tr>
<td>RST 101</td>
<td>3 credits</td>
<td>Business International</td>
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<td><strong>Total</strong></td>
<td><strong>15 or 16 credits</strong></td>
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|                      |                               |                             |
| **Sophomore Year**   |                               |                             |
| MGT 101              | 3 credits                     | MKT 201                     |
| ACC 211              | 3 credits                     | ACC 212                     |
| ECO 255              | 3 credits                     | ECO 256 (Statistics)        |
| ISB 101              | 3 credits                     | ACC 307                     |
| **Field of Knowledge (History)** | 3 credits | Field of Knowledge (Arts) |
| **Total**            | **15 credits**                | **Total**                   |

|                      |                               |                             |
| **Junior Year**      |                               |                             |
| ACC 301              | 3 credits                     | ACC 331                     |
| ACC 303              | 3 credits                     | ENG 389                     |
| FIN 201              | 3 credits                     | Capstone                    |
| **Field of Knowledge (Religion)** | 3 credits | Field of Knowledge (Philosophy*) |
| **Field of Knowledge (Science)** | 3 credits | A&S Elective                |
| **Total**            | **15 credits**                | **Total**                   |

|                      |                               |                             |
| **Senior Year**      |                               |                             |
| ISB 340              | 3 credits                     | ACC 452                     |
| ACC 426              | 3 credits                     | MGT 446                     |
| MGT 325              | 3 credits                     | Free Elective               |
| MGT 370              | 3 credits                     | Free Elective               |
| A&S Elective         | 3 credits                     | A&S Elective                |
| **Total**            | **15 credits**                | **Total**                   |

*Ethics Required

Total 120-121 credits
120 Hours – B.S. in Accounting

Course Requirements: In addition to the common liberal arts and business courses, students in this program will take:

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 301-302</td>
<td>Intermediate Accounting I and II</td>
<td>6</td>
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<tr>
<td>ACC 303</td>
<td>Cost Accounting</td>
<td>3</td>
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<tr>
<td>ACC 307</td>
<td>Management and Accounting Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>ACC 415</td>
<td>Basic Taxation</td>
<td>3</td>
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<td>ACC Electives</td>
<td>Elective courses in Accounting</td>
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<tr>
<td>LAW 371</td>
<td>Business and Commercial Law</td>
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<tr>
<td>LAW 372</td>
<td>Business Organizations and Commercial Paper</td>
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<td></td>
<td>Free Electives</td>
<td>3-6</td>
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<td><strong>Total 120-121 credits</strong></td>
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Typical Schedule:

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<th>Fall</th>
<th>Spring</th>
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<tr>
<td><strong>Freshman Year</strong></td>
<td><strong>Sophomore Year</strong></td>
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<tr>
<td>FYS 101</td>
<td>MGT 101</td>
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<td>MAT 105 or MAT 111</td>
<td>ACC 211</td>
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<td>ECO 101 (Macro)</td>
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<td>RST 101</td>
<td>ISB 101</td>
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<tr>
<td>Business International Requirement</td>
<td>Field of Knowledge (History)</td>
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<td>ECO 102 (Micro)</td>
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<td><strong>Sophomore Year</strong></td>
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<td>ISB 101</td>
<td>Field of Knowledge (Religion)</td>
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<td>Field of Knowledge (History)</td>
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<td><strong>Junior Year</strong></td>
<td><strong>Senior Year</strong></td>
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<tr>
<td>ACC 301</td>
<td>ACC 415</td>
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<td>ACC 303</td>
<td>ACC elective</td>
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<tr>
<td>FIN 201</td>
<td>LAW 372</td>
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<tr>
<td>Field of Knowledge (Religion)</td>
<td>MGT 325</td>
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<td>Field of Knowledge (Science)</td>
<td>MGT 446</td>
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</tbody>
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Total 120-121 credits

* Ethics 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. 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 and Master of Science in Forensic Accounting refer to the Graduate Catalog. Programs are subject to change to meet State standards.

Accounting Courses: 2013 - 2015

ACC 201 Financial Accounting 3 credits
Introduction to accounting concepts for external financial reporting. Accounting theories and principles relative to asset and liability valuations, and income determination. Spring & Fall

ACC 202 Managerial Accounting 3 credits
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 & Fall

ACC 211-212 Principles of Accounting I and II 6 credits
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 & Fall, ACC 212 Spring

ACC 301-302 Intermediate Accounting I and II 6 credits
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. ACC 301 Spring & Fall, ACC 302 Spring

ACC 303 Cost Accounting 3 credits
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 & Fall

ACC 307 Accounting Information Systems 3 credits
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 & Fall
ACC 331 E-Business 3 credits
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 3 credits
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 3 credits
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 Taxation 3 credits
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 3 credits
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 3 credits
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 3 credits
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 ACC 331 or ACC 452 or ACC 425. Fall

ACC 429 Not For Profit 3 credits
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 441 Fraud Examination: Detection and Deterrence 3 credits
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 451 Accounting Theory and Research 3 credits
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

ACC 452 Enterprise Systems 3 credits
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. Prerequisite: ACC 307 Spring
ACC 499 Independent Research in Accounting 3 credits
Undertaking of a significant piece of independent research.
By appointment with chairperson. Spring & Fall

LAW 371 Business and Commercial Law 3 credits
American legal system and substantive law of contracts,
agency, bailments, sales, products liability. Uniform
Commercial Code and cases. Prerequisite: ACC 212 or
permission of instructor. Fall

LAW 372 Business Organizations and
Commercial Paper 3 credits
Legal aspects of partnerships and corporations; advantages
and disadvantages of each, together with commercial
paper under Uniform Commercial Code; trade regulation;
bankruptcy. Prerequisite: LAW 371. Spring

LAW 472 Advanced Commercial Law 3 credits
Foreign Corrupt Practices Act of 1977, secured transactions,
accountant liability, real property, trusts and estates, and
insurance. Prerequisite: LAW 372. Fall
ADOLESCENCE EDUCATION

Chair: Julie Henry, PhD

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/teacher-ed/adolescence-ed/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/teacher-ed/adolescence-ed/learning-goals/

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

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>
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</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 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>
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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 5-6 in their area of concentration must take EMC 352 Human Growth and Social Development: Middle Childhood (3 credits) and EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood (3 credits) 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.

Academic Concentration
Candidates choose from the following areas of certification: Biology, Chemistry, Physics, Mathematics, English, Social Studies, French, German or Spanish. Required courses in these content areas are listed here: [http://www.canisius.edu/teacher-ed/adolescence-ed/](http://www.canisius.edu/teacher-ed/adolescence-ed/)

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.

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Adolescence Education (Grades 7-12) Courses: 2013-2015

EDS 101 Human Growth and Social Development: Adolescence 3 credits
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.

EDS 223 Foundations of Adolescent Literacy 3 credits
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.

EDS 224 Adolescent Literacy in a New Literacies World 3 credits
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.

EDS 370 Teaching Young Adolescent Literature 3 credits
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.
EDS 360 Evaluation and Teaching Strategies 3 credits
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.

EDS 390 Cognition, Learning and Assessment of Adolescents 3 credits
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.

Choose the appropriate course from EDS 402, 403, 404, 405, 406:

EDS 402 Methods of Teaching English: Adolescence 3 credits
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

EDS 403 Methods of Teaching Mathematics: Adolescence 3 credits
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

EDS 404 Methods of Teaching Modern Languages: Adolescence 3 credits
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

EDS 405 Methods of Teaching Science: Adolescence 3 credits
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

EDS 406 Methods of Teaching Social Studies: Adolescence 3 credits
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

EDS 432 Applied Methods of Teaching English: Adolescence 3 credits
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.
EDS 433 Applied Methods of Teaching Mathematics: Adolescence 3 credits
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 403. Attribute: Oral Communication.

EDS 434 Applied Methods of Teaching Modern Languages: Adolescence 3 credits
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 404. Attribute: Oral Communication.

EDS 435 Applied Methods of Teaching Science: Adolescence 3 credits
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.

EDS 436 Applied Methods of Teaching Social Studies 3 credits
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.

EDS 493 Supervised Student Teaching 9 credits
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.

EDS 494 Capstone Seminar for Adolescence Education Teacher Candidates 3 credits
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.

EDU 122 Technology in Education 3 credits
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.

EDU 250 Foundations of Education 3 credits
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.

EDU 410 Teaching Writing in the Schools 3 credits
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.
EDU 415 Grammar and Language Study for Teachers 3 credits
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.

EDU 495 Child Abuse Workshop 0 credits
Mandatory training by NY State Education Department for teacher certification. Held during the student teaching seminar.

EDU 496 Prevention of School Violence Workshop 0 credits
Mandatory training by NY State Education Department for teacher certification. Held during the student teaching seminar.

EMC 352 Human Growth and Social Development: Middle Childhood 3 credits
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.

EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood 3 credits
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.

SPE 341 Inclusive Strategies 3 credits
Highlights best practices in general education for students with disabilities. Illustrates current developments in special education. Emphasizes collaboration.
ANIMAL BEHAVIOR, ECOLOGY AND CONSERVATION

Chair: Michael Noonan, PhD

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/abec/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/abec/learning-goals-objectives/

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 to arrange this. Students should work with their advisor in developing their academic program and planning their co-curricular or supplemental academic experiences.

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

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 elective courses):

<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 I w lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 112</td>
<td>Intro to Bio II w lab</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>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>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>
<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 I</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 492</td>
<td>Internship II</td>
<td>3</td>
</tr>
<tr>
<td>ABEC 495</td>
<td>Research Seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

### Major Experiences

Many courses involve travel, field work, and/or service. The department also offers numerous internship opportunities. Students are encouraged to participate in these experiences.

### 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>
</thead>
<tbody>
<tr>
<td><strong>Freshman</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABEC 215</td>
<td>ABEC 218 (ABEC elective)</td>
</tr>
<tr>
<td></td>
<td>BIO 111 and Lab</td>
<td>BIO 112 and Lab</td>
</tr>
<tr>
<td></td>
<td>FYS 101</td>
<td>ENG 101</td>
</tr>
<tr>
<td></td>
<td>PHI 101</td>
<td>MAT 141</td>
</tr>
<tr>
<td></td>
<td>Free elective</td>
<td>RST 101</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIO 316 (ABEC elective)</td>
<td>BIO 317 (ABEC elective)</td>
</tr>
<tr>
<td></td>
<td>Core Field requirement</td>
<td>Core Field requirement</td>
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<tr>
<td></td>
<td>Core Field requirement</td>
<td>Core Field requirement</td>
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<tr>
<td></td>
<td>Core Field requirement</td>
<td>Core Field requirement</td>
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<tr>
<td></td>
<td>Free elective</td>
<td>Free elective</td>
</tr>
<tr>
<td></td>
<td>Free elective</td>
<td>Free elective</td>
</tr>
<tr>
<td><strong>Junior</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABEC elective</td>
<td>ABEC elective</td>
</tr>
<tr>
<td></td>
<td>PHI 245</td>
<td>ABEC elective</td>
</tr>
<tr>
<td></td>
<td>Core Attribute requirement</td>
<td>BIO 322</td>
</tr>
<tr>
<td></td>
<td>Core Attribute requirement</td>
<td>RST 229</td>
</tr>
<tr>
<td></td>
<td>Free elective</td>
<td>Free elective</td>
</tr>
<tr>
<td></td>
<td>Free elective</td>
<td>Free elective</td>
</tr>
<tr>
<td><strong>Senior</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ABEC elective</td>
<td>ABEC 319 (core capstone)</td>
</tr>
<tr>
<td></td>
<td>ABEC elective</td>
<td>ABEC elective</td>
</tr>
<tr>
<td></td>
<td>Free elective</td>
<td>ABEC elective</td>
</tr>
<tr>
<td></td>
<td>Free elective</td>
<td>Free elective</td>
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<tr>
<td></td>
<td>Free elective</td>
<td>Free elective</td>
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<tr>
<td></td>
<td>Free elective</td>
<td>Free 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 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>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABEC 319</td>
<td>Anthrozoology</td>
<td>4</td>
</tr>
<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>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>
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>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABEC 350</td>
<td>Zoo Biology</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 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 218</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>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>
</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 116</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>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.

**ABEC 215 Introductory Animal Behavior** 3 credits
Behavior across a wide range of species. Similarities and contrasts allow deductions regarding mechanisms and evolution. (Lab required)

**ABEC 218 Applied Animal Behavior** 3 credits
Application of scientific knowledge about animal behavior in problem solving related to human management of animals in various contexts: companion, farm, laboratory, zoo, wild.

**ABEC 220 Animal Learning with Lab** 4 credits
Animal learning and memory research with emphasis on practical animal training. (Lab required)

**ABEC 250 Zoo Animal Husbandry** 3 credits
Modern practices in the management of exotic species in captivity.

**ABEC 251 Zoo Animal Management** 3 credits
Management and oversight of modern zoos, including animal populations, animals as individuals, staffing, budget, education, conservation, and research.

**ABEC 319 Anthrozoology** 3 credits
The study of mankind’s relationship with other species. Themes include companion animals, animal welfare and wildlife conservation. (Core Capstone)

**ABEC 330 Animals, Public Policy, and the Law** 3 credits
This course provides an overview of both law and public policy as they impact modern societies’ views and treatment of non-human animals. Students will explore American and other national legal systems, as well as several different senses of the term “public policy” in connection with companion animals, wildlife, research animals, and food animals.

**ABEC 339 Animal Enrichment** 3 credits
Design, implementation and evaluation of enrichment in the laboratory, shelter and zoo setting.

**ABEC 350 Zoo Biology** 4 credits
The roles of zoos in conservation, education, and research. Environmental, genetic, nutritional and behavioral factors in the management of captive animal populations and species survival plans.

**ABEC 360 Observational Research Methods** 4 credits
Introduction to observational sampling methods for behavioral research. Laboratory and field exercises, including a 6-week research project at Buffalo Zoo. (Writing Intensive Attribute)

**ABEC 404 Wildlife Ecology and Conservation in South Africa** 3 credits
Field experience in South Africa, emphasizing field methods for animal observation and applicability to conservation. (Core Capstone)

**ABEC 490 Canisius Ambassadors for Conservation** 3 credits
Field study of endangered species and ecology, followed by educational outreach to school and public audiences.

**ABEC 491 Internship 1** 3 credits
Internship in animal-related setting. Joint supervision by faculty and agency personnel. Application of classroom lessons to real-world situations.

**ABEC 492 Internship 2** 3 credits
Internship in animal-related setting. Joint supervision by faculty and agency personnel. Application of classroom lessons to real-world situations.

**ABEC 495 Research Seminar** 3 credits
Independent animal-focused research conducted under the supervision of a faculty member.

**BIO 111 Introduction to General Biology 1** 4 credits
[course description on Biology pages]

**BIO 112 Introduction to General Biology 2** 4 credits
[course description on Biology pages]
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 166</td>
<td>Biology of Birds (or BIO 366 Ornithology)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Phylogenetic relationships, ecology, natural history and behavior of birds.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>World-wide diversity and local species. Field techniques. (Lab required)</td>
<td></td>
</tr>
<tr>
<td>BIO 312</td>
<td>Primatology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Primate evolution, behavior, and conservation. (Writing Intensive Attribute)</td>
<td></td>
</tr>
<tr>
<td>BIO 316</td>
<td>Social Organization of Mammals</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Behavior and social structure of rodents, felines, canines, cetaceans,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>elephants, monkeys, apes and humans. (Lab required)</td>
<td></td>
</tr>
<tr>
<td>BIO 317</td>
<td>Sex, Evolution and Behavior</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Reproductive behavior of diverse animal species from an evolutionary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>perspective. Focus on how evolutionary accounts explain male-female</td>
<td></td>
</tr>
<tr>
<td></td>
<td>differences in lifestyle and behavior.</td>
<td></td>
</tr>
<tr>
<td>BIO 320</td>
<td>Field Ecology with Lab</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Introduction to the flora, fauna and physical characteristics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of regional ecosystems, with emphasis on field methods and application of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ecological theory. (Lab required)</td>
<td></td>
</tr>
<tr>
<td>BIO 322</td>
<td>Conservation Biology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Study of the plight of endangered species, the biological consequences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of fragmented populations, and scientific bases of habitat/species</td>
<td></td>
</tr>
<tr>
<td></td>
<td>restoration.</td>
<td></td>
</tr>
<tr>
<td>BIO 325</td>
<td>Reproductive Biopsychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Neuro-endocrine mechanisms underlying behavior associated with sexual,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>pregnancy, and parental care. Equal focus on human and non-human</td>
<td></td>
</tr>
<tr>
<td></td>
<td>behavior.</td>
<td></td>
</tr>
<tr>
<td>BIO 343</td>
<td>Entomology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Introduction to the diversity and natural history of insects, with</td>
<td></td>
</tr>
<tr>
<td></td>
<td>emphasis on identification of species. (Lab required)</td>
<td></td>
</tr>
<tr>
<td>BIO 355</td>
<td>Behavioral Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Functions of the nervous/endocrine systems in mediating motivation,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>movement, sensation, ingestion, aggression, emotion, sleep, learning,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>memory, thought, and behavior disorders.</td>
<td></td>
</tr>
<tr>
<td>BIO 365</td>
<td>Vertebrate Zoology</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>The biology of the vertebrates, including anatomy, evolution, ecology,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>natural history and behavior. (Lab required)</td>
<td></td>
</tr>
<tr>
<td>BIO 371</td>
<td>Behavioral Ecology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Behavioral adaptations and interactions within and among species of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>animals within the context of ecological considerations.</td>
<td></td>
</tr>
<tr>
<td>BIO 372</td>
<td>Evolution</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The mechanisms of evolutionary change, phylogeny and cladistics, molecular</td>
<td></td>
</tr>
<tr>
<td></td>
<td>methods for exploring patterns of evolutionary relationships.</td>
<td></td>
</tr>
<tr>
<td>BIO 375</td>
<td>Community Ecology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Focus on the complex interactions between diverse species and their</td>
<td></td>
</tr>
<tr>
<td></td>
<td>environments. Adaptations and interdependency of organisms.</td>
<td></td>
</tr>
<tr>
<td>ENG 285</td>
<td>Writing and Animal Studies</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>(course description on English pages) (Writing Intensive Attribute)</td>
<td></td>
</tr>
<tr>
<td>MAT 141</td>
<td>Inferential Statistics (or PSY 201 Behavioral Statistics)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Descriptive statistics, probability, sampling distributions, hypothesis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>testing and inferential statistics.</td>
<td></td>
</tr>
<tr>
<td>PHI 245</td>
<td>Animal Ethics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The philosophical principals underlying concerns for animal welfare/animal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>rights. Application to real-world examples is stressed.</td>
<td></td>
</tr>
<tr>
<td>PHI 348</td>
<td>Environmental Ethics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Examination of various theories of environmental ethics and the ethical</td>
<td></td>
</tr>
<tr>
<td></td>
<td>responsibilities human beings ought to have in their relationship with the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>natural world.</td>
<td></td>
</tr>
<tr>
<td>RST 229</td>
<td>Religious Perspectives on Animals</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Comparative survey of mankind’s religious perspectives on other species.</td>
<td></td>
</tr>
</tbody>
</table>
ATHLETIC TRAINING

Interim Chair: Peter M. Koehneke

Introduction
The Department of Kinesiology offers a Bachelor of Science degree with a major program in athletic training. The major is designed to prepare students to enter the athletic training and allied health fields. Emphasis is placed on the development of cognitive knowledge and psychomotor skills which includes practicum, laboratory and an internship experience. The major is accredited by the Commission on Accreditation of Athletic Training Education (CAATE) and prepares students for the Board of Certification (BOC) examination.

A degree in athletic training (AT) can be the key to an exciting career. Athletic trainers are skilled health care professionals who are involved in the prevention, diagnosis, management and rehabilitation of injuries and illnesses. Our nationally recognized program, taught by faculty members who also have earned national reputations, prepares students for the Board of Certification examination.

Students benefit from a very low student-teacher ratio, and thus a high degree of personal attention. Every semester, AT majors gain hands-on clinical experience which begins in the sophomore year. Our students have a competitive edge in the job market, due to a culminating internship.

Athletic trainers are integral members of the health care team in high schools, colleges, sports medicine clinics, hospitals, physician offices and professional sports teams. Beyond the field of athletic training, our alumni include physical therapists, podiatrists, physician assistants, chiropractors, physicians and secondary school teachers. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/athletic-training/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/athletic-training/learning-goals/

Advisement
All Athletic Training 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core

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>BIO 114/L</td>
<td>Human Biology: An Introduction to Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 115/L</td>
<td>Musculoskeletal Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>ATH 170</td>
<td>Emergency Care and Introduction to Athletic Training</td>
<td>3</td>
</tr>
<tr>
<td>HED 205</td>
<td>Wellness and Fitness</td>
<td>3</td>
</tr>
<tr>
<td>KIN 235</td>
<td>Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KIN 336/L</td>
<td>Physiology of Exercise and Lab</td>
<td>4</td>
</tr>
<tr>
<td>ATH 132</td>
<td>Practicum in Athletic Training</td>
<td>2</td>
</tr>
<tr>
<td>ATH 231</td>
<td>Practicum in Athletic Training</td>
<td>1</td>
</tr>
<tr>
<td>ATH 232</td>
<td>Practicum in Athletic Training</td>
<td>1</td>
</tr>
<tr>
<td>ATH 261</td>
<td>Diagnosis of Injuries/Illnesses I (Lab)</td>
<td>3</td>
</tr>
<tr>
<td>ATH 262</td>
<td>Diagnosis of Injuries/Illnesses II (Lab)</td>
<td>3</td>
</tr>
<tr>
<td>ATH 300</td>
<td>General Medical Diagnostics and Interventions</td>
<td>3</td>
</tr>
<tr>
<td>ATH 309</td>
<td>Pathophysiology and Pharmacology in A.T.</td>
<td>3</td>
</tr>
<tr>
<td>ATH 331</td>
<td>Practicum in Athletic Training</td>
<td>1</td>
</tr>
<tr>
<td>ATH 332</td>
<td>Practicum in Athletic Training</td>
<td>1</td>
</tr>
<tr>
<td>ATH 342</td>
<td>Therapeutic Modalities (Lab)</td>
<td>3</td>
</tr>
<tr>
<td>ATH 343</td>
<td>Therapeutic Exercise (Lab)</td>
<td>3</td>
</tr>
<tr>
<td>ATH 361</td>
<td>Sports Psychology</td>
<td>3</td>
</tr>
<tr>
<td>ATH 372</td>
<td>Health Issues for Athletic Trainers</td>
<td>3</td>
</tr>
<tr>
<td>ATH 373</td>
<td>Nutritional Issues for Athletic Trainers</td>
<td>3</td>
</tr>
<tr>
<td>ATH 398</td>
<td>Statistics and Research Design</td>
<td>3</td>
</tr>
<tr>
<td>ATH 431</td>
<td>Practicum in Athletic Training</td>
<td>3</td>
</tr>
<tr>
<td>ATH 482</td>
<td>Administration of Athletic Training</td>
<td>3</td>
</tr>
<tr>
<td>ATH 498</td>
<td>Internship in Athletic Training</td>
<td>3</td>
</tr>
</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 and emotional stability. Clinical sites may require a criminal background check prior to placement.

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. http://www.canisius.edu/athletic-training-sports-medicine/

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 Chair of the Kinesiology Department.

### Additional Course Considerations

Athletic Training majors should consult their advisor for 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>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>BIO 114 and Lab (4 credits)</td>
<td>BIO 115 and Lab (4 credits)</td>
</tr>
<tr>
<td></td>
<td>ATH 170 (3 credits)</td>
<td>ATH 132 (2 credits)</td>
</tr>
<tr>
<td></td>
<td>FYS 101 (3 credits)</td>
<td>ENG 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>PHI 101 (3 credits)</td>
<td>RST 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Core (3 credits)</td>
<td>Core (3 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>ATH 231 (3 credits)</td>
<td>ATH 232 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ATH 261/Lab (3 credits)</td>
<td>ATH 262/Lab (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ATH 342/Lab (3 credits)</td>
<td>ATH 343/Lab (3 credits)</td>
</tr>
<tr>
<td></td>
<td>KIN 235 (3 credits)</td>
<td>HED 205 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Core (3 credits)</td>
<td>Core (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Core (3 credits)</td>
<td>Core (3 credits)</td>
</tr>
<tr>
<td>Junior</td>
<td>KIN 336 and Lab (4 credits)</td>
<td>ATH 332 (1 credit)</td>
</tr>
<tr>
<td></td>
<td>ATH 309 (3 credits)</td>
<td>ATH 361 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ATH 331 (1 credit)</td>
<td>ATH 373 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ATH 372 (3 credits)</td>
<td>ATH 398 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Core (3 credits)</td>
<td>Core (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Elective (3 credits)</td>
<td>ATH 300 (3 credits)</td>
</tr>
<tr>
<td>Senior</td>
<td>ATH 431 (3 credits)</td>
<td>ATH 482 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Core (3 credits)</td>
<td>ATH 498 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Core (3 credits)</td>
<td>Capstone (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Elective (3 credits)</td>
<td>Elective (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Elective (3 credits)</td>
<td>Elective (3 credits)</td>
</tr>
</tbody>
</table>

### 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 Strength and Conditioning minor is common minor for athletic training students. The minor provides students with preparation for the fields of strength and conditioning, wellness, and for related graduate work. It also helps students prepare for specialty certifications through the American College of Sports Medicine, the National Strength and Conditioning Association and the National Academy of Sports Medicine. Strength and conditioning courses have specific pre-requisites, which are stated in the course descriptions.

Admission to the Strength and Conditioning 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 KIN 235. Each course must be completed with a grade of C (2.3) or higher. The applicant must attain a minimum C (2.3) 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 Strength and Conditioning minor at Canisius College must complete a Change of Major/Minor form. Application for the minor must be completed following enrollment in KIN 235.
**Strength and Conditioning Minor Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 114</td>
<td>Human Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 115</td>
<td>Musculoskeletal Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>KIN 235</td>
<td>Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KIN 336</td>
<td>Physiology of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>HED 337</td>
<td>Exercise Principles</td>
<td>3</td>
</tr>
<tr>
<td>ATH 373</td>
<td>Nutritional Issues for Athletic Trainers or Basic Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HED 115</td>
<td>Nutritional Issues for Athletic Trainers or Basic Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>PED 365</td>
<td>Principles and Philosophy of Coaching</td>
<td>3</td>
</tr>
<tr>
<td>KIN 420</td>
<td>Strength and Conditioning Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note:** Peter Koehneke serves as the Director of the Athletic Training major, and Dr. Karl Kozlowski or Dr. Chuck Pelitera serve as advisors for the Strength and Conditioning minor program in the Department of Kinesiology.

**Athletic Training Courses: 2013 – 2015**

**ATH 132 Practicum in Athletic Training**  2 credits
Didactic and psychomotor skill instruction with practical examinations. Examinations are an integral portion of the acceptance criteria for the program. Prerequisites: BIO 114 and BIO 114L with a grade of C or above and an overall G.P.A. of 2.0. **Fall, Spring**

**ATH 170 Emergency Care and Introduction to Athletic Training**  3 credits
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**  1-1 credits
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**  3 credits
Theoretical, practical, empirical study of lower extremity, lumbar spine diagnosis. 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**  3 credits
Theoretical, practical, empirical study of upper extremity, thorax, head and cervical spine diagnosis. Includes lab. Prerequisites: ATH 261 and ATH 231 with grades of C or above. **Lab required. Spring**

**ATH 300 General Medical Diagnostics and Interventions**  3 credits
Theoretical, practical, empirical study of general medical conditions, commonly used diagnostics and interventions for the athletic trainer. Prerequisites: ATH 261 and ATH 231 with grades of C or above. **Spring (Alternating Years)**

**ATH 309 Pathophysiology and Pharmacology for Athletic Trainers**  3 credits
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**  1-1 credits
See ATH 231-232 for description. **Fall, Spring**

**ATH 342 Therapeutic Modalities**  3 credits
Therapeutic modality use in treatment of orthopedic 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**  3 credits
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: KIN 235 with a grade of C or above. Registration concurrent with ATH 232. **Lab required. Spring**
ATH 361 Psychology of Sport and Mental Health 3 credits
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 3 credits
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 3 credits
Fundamental theories and practices of nutrition, diet construction and research findings applicable to athletic performance. Spring (Alternating Years)

ATH 398 Statistics and Research Design for Athletic Trainers 3 credits
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: KIN 235 with a grade of C or above. Spring

ATH 431 Practicum in Athletic Training 3 credits
See ATH 231-232 for description. Fall

ATH 482 Administration of Athletic Training 3 credits
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 261 and ATH 231 with grades of C or above. Spring (Alternating Years)

ATH 498 Internship in Athletic Training 3 credits
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

KIN 235 Kinesiology 3 credits
Scientific study of human movement, emphasizing the basic principles of musculoskeletal anatomy, neuromuscular physiology and biomechanics. Prerequisite: BIO 114 and BIO 115 with a grade of C or above. Fall, Spring

KIN 336 Physiology of Exercise 3 credits
Effects of physical activity on the functioning human body. Restrictions on levels of physical activity by normal metabolic limitations. Lab required (KIN 336L) for Athletic Training and Health and Wellness majors. Prerequisite: BIO 115 with a minimum grade of C. Summer, Fall, Spring

KIN 336L Physiology of Exercise Lab 1 credit
Laboratory experiences in physiology of exercise. Lab required (KIN 336L) for Athletic Training and Health and Wellness majors. Prerequisite: Concurrent registration in KIN 336. Summer, Fall, Spring
**Bioinformatics**

**Director:** Debra T. Burhans, PhD

**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 course work 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 experience and background required for graduate study or employment in bioinformatics or computer science. Graduates of the program have pursued advanced degrees 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.

For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to [http://www.canisius.edu/bioinformatics/index.dot](http://www.canisius.edu/bioinformatics/index.dot)

**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 C or better in CSC 111/L. 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 Curriculum**

All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at [http://www.canisius.edu/academics/core/](http://www.canisius.edu/academics/core/)

**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.

**Learning Goals and Objectives**

For Learning Goals and Objectives please go to [http://www.canisius.edu/bioinformatics/learning-goals-objectives/](http://www.canisius.edu/bioinformatics/learning-goals-objectives/)
## Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bioinformatics:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIF 101/L</td>
<td>Introduction to Bioinformatics</td>
<td>4</td>
</tr>
<tr>
<td>BIF 400/L</td>
<td>Advanced Algorithms</td>
<td>4</td>
</tr>
<tr>
<td><strong>Computer Science:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 111/L</td>
<td>Introduction to Computer 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>
<tr>
<td>CSC 310/L</td>
<td>Information Organization and Processing</td>
<td>4</td>
</tr>
<tr>
<td><strong>Mathematics:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 111</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 141</td>
<td>Statistics</td>
<td>4</td>
</tr>
<tr>
<td>MAT 191</td>
<td>Discrete Mathematics</td>
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</tr>
<tr>
<td><strong>Biology:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO 111/L</td>
<td>Introductory Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 112/L</td>
<td>Introductory Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BIO 211/L</td>
<td>Biochemistry and Cell Biology I</td>
<td>4</td>
</tr>
<tr>
<td>BIO 212/L</td>
<td>Biochemistry and Cell Biology II</td>
<td>4</td>
</tr>
<tr>
<td><strong>Chemistry:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHM 111/L</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHM 112/L</td>
<td>General Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHM 227/L</td>
<td>Organic Chemistry I</td>
<td>4</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><strong>Biology:</strong></td>
<td></td>
<td></td>
</tr>
<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>
</tr>
<tr>
<td><strong>Chemistry:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHM 301-302</td>
<td>Classical Physical Chemistry and Lab</td>
<td>8</td>
</tr>
<tr>
<td><strong>Computer Science (all courses with lab):</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC 313</td>
<td>Advanced Programming Topics</td>
<td>4</td>
</tr>
<tr>
<td>CSC 320</td>
<td>Socially Conscious App Development</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>
<tr>
<td><strong>Mathematics:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 341</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MAT 351-352</td>
<td>Probability and Statistics</td>
<td>3</td>
</tr>
<tr>
<td>MAT 354</td>
<td>Experimental Design and Statistical Computing</td>
<td>3</td>
</tr>
<tr>
<td><strong>Physics:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY 360</td>
<td>Scientific Modeling</td>
<td>3</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 228/L</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>PHY 201-202</td>
<td>General Physics with Lab (does not require calculus)</td>
<td>4</td>
</tr>
<tr>
<td>or PHY 223-224</td>
<td>General Physics for Physical Science Majors with Lab (requires Calculus I)</td>
<td>4</td>
</tr>
</tbody>
</table>

Additional Recommended Math Courses for Majors include

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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 222</td>
<td>Differential Equations</td>
<td>4</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>BIF 101/L (4)</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></td>
<td>Sophomore</td>
<td></td>
</tr>
<tr>
<td></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></td>
<td>Junior</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CSC 310/L (4)</td>
<td>BIF 400/L (4) (offered either Jr or Sr year) BIF elective</td>
</tr>
<tr>
<td></td>
<td>(offered either Jr or Sr year)</td>
<td>BIF 400/L (4) (offered either Jr or Sr year) BIF elective</td>
</tr>
<tr>
<td></td>
<td>MAT 111 (4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Senior</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CSC 310/L(4) (if not offered in junior year)</td>
<td>BIF 400/L (4) (if not offered in junior year)</td>
</tr>
<tr>
<td></td>
<td>BIF elective</td>
<td>BIF elective</td>
</tr>
<tr>
<td></td>
<td>MAT 141 (4)</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 many cases additional course work is required. In order to declare a dual major, students must complete a dual major request form and obtain 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 4 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 (28 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. All of the following courses must include the accompanying laboratory section:

<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</td>
<td>4</td>
</tr>
<tr>
<td>BIO 112/L</td>
<td>Introductory Biology II</td>
<td>4</td>
</tr>
<tr>
<td>BIF 101/L</td>
<td>Introduction to Bioinformatics</td>
<td>4</td>
</tr>
<tr>
<td>BIF 400/L</td>
<td>Advanced Algorithms</td>
<td>4</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>

All bioinformatics majors will automatically earn a minor in Computer Science. Students should ensure that they file the necessary paperwork with the registrar in order to receive the appropriate notation on their transcripts.
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 212.

### Bioinformatic Courses: 2013-2015

**BIF 101/L Introduction to Bioinformatics**  
4 credits  
Students learn a popular scripting language such as Perl or Python. Programming problems and algorithms are based on examples drawn from bioinformatics. The course also includes reading and discussion of ethical issues in bioinformatics and introduces basic science concepts fundamental to bioinformatics and genomics. The course serves as an introductory course for the bioinformatics and computer science majors and minors. There are no prerequisites. Core: Field 7, Ethics.  
*Fall*

**BIF 400/L Advanced Algorithms**  
4 credits  
This course covers algorithms and approaches to problem solving where examples are drawn from the field of bioinformatics. Large data sets will be obtained and analyzed using MatLab and/or R and Perl, which will be taught in the course. Students complete a project that is appropriate to their major. The course is required for BIF majors and minors and serves as an upper-level elective for CS majors and minors. It is also an ideal course for math majors seeking computational problem solving experience. Prerequisites are both CSC 111/L and MAT 191, or either CSC 212/L or MAT 230, or permission of instructor. Core: Advanced Writing-intensive.  
*Spring 2014*

**BIF 499 Bioinformatics Internship**  
3 credits  
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.
Co-Chair: Susan M. Aronica, PhD  
Co-Chair: Sara R. Morris, PhD

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 perform independent research with a faculty member in the Biology Department helps develop additional skills not normally offered in undergraduate courses and provides additional opportunities to apply the knowledge acquired in coursework. Canisius has developed programs for students interested in Early Assurance Acceptance into the University at Buffalo (School of Medicine and School of Dental Medicine), SUNY Upstate (College of Medicine) and Lake Erie College of Osteopathic Medicine (College of Medicine, School of Dental Medicine and School of Pharmacy); Joint Degree Programs with the University at Buffalo (School of Dental Medicine and School of Pharmacy), Lake Erie College of Osteopathic Medicine (College of Medicine, School of Dental Medicine and School of Pharmacy), and SUNY College of Optometry. Canisius also has a Memorandum of Understanding with the Ontario Veterinary College, University of Guelph. 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. For more information please view the department’s website at http://www.canisius.edu/biology/index.dot

Learning Goals and Objectives
For Learning Goals and Objectives please go to http://www.canisius.edu/biology/learning-goals-objectives/

Qualifications
Students must maintain 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 introductory courses (BIO 111 and 112) in order to progress into the next course in the Biology sequence. Students must have a C or better in BIO 212 and successfully complete BIO 211L and BIO 212L to take any 400-level Biology courses.

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 are 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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.

Biology Major Course Requirements

<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>

Mathematics electives: two courses (8 credits), three options
(1) MAT 111 Calculus I and MAT 141 or PSY 201 (Statistics)
(2) MAT 111-112
(3) One year of statistics for 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. Students must take at least one course with its associated laboratory 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 324 Human 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, BIO 370 Plant Morphology, BIO 375 Community Ecology


Track IV: Genetics/Molecular Biology: BIO 404 Genetics, BIO 405 Medical Genetics, BIO 408 Biotechnology, Theory in Practice, 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 301 Research Methods would fulfill this fourth laboratory requirement.

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 the department chair for complete details including appropriate paperwork.

**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 111/112 and CHM 111/112 in the freshman year, and BIO 211/212 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.

**Recommended Semester Schedule for Major Course Requirements:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>BIO 111/111L (4)</td>
<td>BIO 112/112L (4)</td>
</tr>
<tr>
<td></td>
<td>CHM 111/111L (4)</td>
<td>CHM 112/112L (4)</td>
</tr>
<tr>
<td></td>
<td>MAT (calculus or statistics)</td>
<td>MAT (calculus or statistics)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>BIO 211/211L (4)</td>
<td>BIO 212/212L (4)</td>
</tr>
<tr>
<td></td>
<td>CHM 227/227L (4)</td>
<td>CHM 228/228L (4)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BIO 351 Seminar I (1)</td>
</tr>
<tr>
<td>Junior</td>
<td>PHY 201/201L (4)</td>
<td>PHY 202/201L (4)</td>
</tr>
<tr>
<td></td>
<td>BIO Elective with lab (4)</td>
<td>BIO Elective with lab (4)</td>
</tr>
<tr>
<td>Senior</td>
<td>BIO Elective with lab (4)</td>
<td>BIO Elective with lab (4)</td>
</tr>
<tr>
<td></td>
<td>BIO Elective (3/4)</td>
<td>Bio Elective (3/4)</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: General Biology, Cell and Molecular Biology, Environmental Biology, Neuroscience, Animal Behavior, and Zoo Biology. Students interested in the Cell and Molecular Biology, Environmental Biology, Neuroscience, or Biology minors should consult with the coordinator of that minor and 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. A description of the other minors are listed below.

**Cell and Molecular Biology Minor**

Coordinator: Barbara Hanson, PhD

**Description and Requirements**

The Cell and Molecular minor is open to students majoring in biology or chemistry. For students seeking employment at the B.S. level, a Departmental “Letter of Proficiency in
Laboratory Skills” may be requested upon completion of the minor. This letter requires enrollment in either BIO 300 or BIO 301 and the passing of a laboratory skills competency exam given by the instructor. Students must select six courses from the list below. At least four of the six courses must be taken with a laboratory, and no more than four courses and three laboratories may come from one of the two areas: either the Cell or Genetics/Molecular area.

**Cell Area**
BIO 340 - Physiology  
BIO 416 - Virology  
BIO 418 - Endocrinology  
BIO 419 - Cell Biology  
BIO 425 - Cellular Neurobiology  
BIO 426 - Immunochemistry  
BIO 430 - Human Nutrition and Metabolism  
BIO 432 - Developmental Biology  
BIO 435 - Developmental Neurobiology  
BIO 440 - Medical Biochemistry  
BIO 445 - Cellular Imaging

**Genetics/Molecular Area:**
BIO 404 - Genetics  
BIO 405 - Medical Genetics  
BIO 408 – Biotechnology  
BIO 414 - Proteins and Enzymes  
BIO 444 - Cancer Biology  
BIO 450 - Molecular Biology

**Environmental Biology Minor**  
Coordinator: Sara Morris, PhD

**Description and Requirements**  
The Environmental Biology minor is open to students majoring in biology. It is designed for students who want to focus on organismal biology, natural history, ecology and environmental science. It provides a broad preparation for entry into B.S. level positions in the environmental sciences and advanced study at the graduate level. The environmental biology minor requires BIO 320 (field ecology with its lab), at least one diversity class with its lab, and four additional upper-level biology classes, at least two of which must include the associated laboratory. Students may choose from the following classes (classes marked with an asterisk fulfill the diversity requirement).

- BIO 305 - Microbiology: an Environmental Perspective*  
- BIO 312 - Primatology  
- BIO 316 - Social Organization of Mammals  
- BIO 320 - Field Ecology (required of all students)  
- BIO 322 - Conservation Biology  
- BIO 335 - Plant Biology*  
- BIO 343 - Entomology*  
- BIO 360 - Environmental Health  
- BIO 365 - Vertebrate Zoology*  
- BIO 366 - Ornithology*  
- BIO 370 - Plant Morphology*  
- BIO 371 - Behavioral Ecology  
- BIO 375 - Community Ecology

**Neuroscience Minor**  
Coordinator: Elizabeth Hogan, PhD

**Description and Requirements**  
The Neuroscience minor may be earned by any student who completes the required courses. Note that there are prerequisites for some courses that will effectively limit accessibility to Biology and Biology/Psychology majors. To obtain a neuroscience minor, students will need to complete 5 of the courses listed below. One of the courses must be BIO 425 with its laboratory (BIO 425 L) or BIO 435 with its laboratory (BIO 435L.)

- BIO 325 - Reproductive Biopsychology  
- BIO 345 - Functional Neuroanatomy  
- BIO 355 - Behavioral Neuroscience  
- BIO 425 - Cellular Neurobiology  
- BIO 435 - Developmental Neurobiology  
- PSY 397 - Neurobiology of Mental Disorders  
- PSY 398 - Neurobiology of Childhood Mental Disorders  
- PSY 495* - Research Seminar  
- BIO 301* - Experimental Lab Techniques (3 semesters required)

**General Biology Minor (for non-biology majors)**  
See the department chair

**Description and requirements**  
The biology minor may be earned by any student who completes the required courses. Co- and/or Pre-requisites for some of the required courses may effectively limit accessibility.
Students must complete 6 courses for the minor, five of which have labs. Four of these courses are required and two are electives. Required courses included BIO 111, 112, 211, and 212. Students must choose one elective at the 300 level and one elective at the 400 level. Both of these courses must be taken with their associated laboratories.

**Biology Courses: 2013 - 2015**

**BIO 111 Introductory Biology I** 3 credits
Introductory course for freshmen biology and other science majors. Course provides foundation of evolution, natural selection and heredity, and ecological principles as mechanisms of selection and evolution. 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 environment. Three hours of lecture and one one-hour recitation per week. Field 6

**BIO 111L Introductory Biology Laboratory I** 1 credit
Laboratories in selection, heredity, diversity, population biology and ecology. Also includes introduction to scientific method and scientific writing. Co-requisites: Concurrent enrollment in BIO 111.

**BIO 112 Introductory Biology II** 3 credits
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 BIO 111. Field 6

**BIO 112L Introductory Biology Laboratory II** 1 credit
Laboratories that provide an examination of the structure and function of living organisms (plants and animals). Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 112.

**BIO 211 Biochemistry and Cell Biology I** 3 credits
Fundamentals of biochemistry (biological chemistry) and cell biology for students majoring in the biological sciences. Structure and biological activities of proteins and lipids. Integrates the cellular and biochemical relationships between systems within the cell, with an emphasis on membrane transport, signal transduction, and cell motility. Three hours of lecture and one one-hour recitation per week. Prerequisites: C- or better in BIO 111 and 112 and completion of CHM 111/112.

**BIO 211L Biochemistry and Cell Biology Lab I** 1 credit
Investigative laboratory provides opportunity for students to learn how to isolate, measure, and characterize macromolecules present within a variety of cellular systems. Three hours of lab per week. Corequisite: BIO 211.

**BIO 212 Biochemistry and Cell Biology II** 3 credits
Fundamentals of biochemistry (biological chemistry) and cell biology for students majoring in the biological sciences. Structure and biological activities of carbohydrates and nucleic acids. Integrates the cellular and biochemical relationships between systems within the cell with an emphasis on the role cell communication, respiration, photosynthesis, gene expression, and cell division. Three hours of lecture and one one-hour recitation per week. Prerequisites: BIO 211.

**BIO 212L Biochemistry and Cell Biology Lab II** 1 credit
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. Three hours of lab per week. Prerequisites: BIO 211/211L and concurrent registration in BIO 212.

**BIO 298 Pre-clinical Experience for Undergraduates** 1 credit
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 111 and 112.
### Biology Electives For Majors

**BIO 300 Research Methods** 0 credits  
**BIO 301 Research Methods** 1 credit  
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 305 Microbiology: An Environmental Perspective** 3 credits  
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. Three hours of lecture and one and a half hours of recitation per week. Prerequisites: BIO 111-112

**BIO 305L Microbiology: An Environmental Perspective Laboratory** 1 credit  
Current approaches and 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. Three hours of lab per week Corequisite: Concurrent enrollment in BIO 305.

**BIO 307 Microbiology** 3 credits  
Cell structure, genetics, biochemistry and physiology of microorganisms, with emphasis on bacteria. Medical microbiology, epidemiology, and some immunology also are discussed. Prerequisites: BIO 111-112

**BIO 307L Microbiology Laboratory** 1 credit  
Microbiology laboratory is concerned primarily with the cell structure, growth, physiology and identification of bacteria. Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 307.

**BIO 310 Histology and Histophysiology** 4 credits  
A systematic study of structure and function of cells and tissues as viewed by light microscopy. Lab employs tissue slides and digital images. Lab required. Three hours of lecture and one three-hour lab per week. Prerequisite: BIO 111-112

**BIO 312 Primatology** 3 credits  
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

**BIO 313 Comparative Embryology** 4 credits  
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. Lab required. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111-112

**BIO 314 Comparative Anatomy** 4 credits  
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. Lab required. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111-112
BIO 316 Social Organization of Mammals 4 credits
Behavior and social structures of rodents, felines, canines, cetaceans, elephants, monkeys, apes and humans. Laboratory includes observation of animal groupings at local zoos and aquariums. Lab required. Three hours of lecture and three hour of lab per week. Prerequisites: BIO 111-112

BIO 317 Sex, Evolution and Behavior 3 credits
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

BIO 320 Field Ecology 4 credits
Introduction to the flora, fauna and physical characteristics of regional ecosystems with application of ecological theory. Emphasis on field methods and application of scientific method from data collection, analysis, and data presentation. Lab required. Three hours of lecture and six hours of lab per week. Prerequisites: BIO 111-112

BIO 322 Conservation Biology 3 credits
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 324 Human Anatomy 4 credits
A structure/function approach based on what was learned in BIO 112, this course will allow the student to increase their conceptual understanding of human anatomy. Human Anatomy Lab is required with this course. Lab required. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111-112

BIO 325 Reproductive Biopsychology 3 credits
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 335 Plant Biology 3 credits
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 1 credit
Investigative survey of plant structure and function. Corequisite: Concurrent enrollment in BIO 335.

BIO 340 Physiology 3 credits
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 1 credit
Experimental study of physiological systems, using biochemical, cellular and hematological techniques and electronic instrumentation. Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 340.

BIO 343 Entomology 4 credits
Introduction to the diversity and natural history of insects. With an emphasis on structure, function, evolution and ecology of this group. Laboratory focuses on anatomy, diversity, and classification. Lab required. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111-112

BIO 345 Functional Neuroanatomy 3 credits
Examination of human neuroanatomy, with emphasis on the relationship between neuronal circuits and nervous system function/dysfunction. Prerequisites: BIO 111-112

BIO 355 Behavioral Neuroscience 3 credits
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 3 credits
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  4 credits
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. Lab required. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111-112

BIO 366 Ornithology  4 credits
Phylogenetic relationships, ecology, natural history and the behavior of birds. Laboratory focuses on world-wide diversity, local species and field techniques. Lab required. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111-112

BIO 370 Plant Morphology  4 credits
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. Lab required. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111-112

BIO 371 Behavioral Ecology  3 credits
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  4 credits
Examination of how processes in multi-species assemblages affect communities by altering species’ abundances, distributions, composition, and driving long term evolutionary change. Laboratory will demonstrate these concepts through field-collected and experimental data. Lab required. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111- 112

BIO 376 Evolutionary Applications  3 credits
Provides an advanced understanding on how evolutionary mechanisms lead to patterns observed in natural populations with an emphasis on humans. Topics include evaluation of mechanisms of microevolutionary change, and the evolutionary importance of mechanisms such as altruism, life history, aging, and pathogen virulence. Prerequisite: BIO 111, 112.

BIO 400 Independent Study  3 credits
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  4 credits
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  3 credits
Principles of Mendelian, molecular, population, human and quantitative genetics, with emphasis on inherited diseases. Three hours of lecture and one hour of recitation per week. Prerequisites: BIO 111, 112, 211, 212

BIO 404L Genetics Laboratory  1 credit
Principles of Mendelian and molecular genetics as demonstrated by experiments with Drosophila and other experimental organisms. Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 404.

BIO 405 Medical Genetics  3 credits
Study of the molecular basis of human disease, with a particular emphasis placed on those mechanisms underlying inherited diseases. Topics include modes of transmission of human characteristics and diseases, both in families and in populations, developmental and cancer genetics, as well as the techniques utilized for screening, diagnosing and treating specific genetic disorders. Prerequisites: BIO 111, 112, 211, 212

BIO 405L Medical Genetics Laboratory  1 credit
Experimental methods used in the study of medical genetics. Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 405.

BIO 408 Biotechnology, Theory in Practice  4 credits
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. Three hours of lecture and three hours of lab per week. Prerequisite: BIO 111, 112, 211, 212
BIO 414 Enzymes and Proteins 3 credits
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

BIO 414L Enzymes and Proteins Laboratory 1 credit
Experimental techniques for the purification of proteins, the analysis of protein function and the measurement of enzyme kinetics. Three hours of lab per week. Corequisite: Concurrent registration in BIO 414.

BIO 416 Virology 3 credits
Study of 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. Additional topics discussed include techniques for studying the replication and quantification of viral infections. Prerequisites: BIO 111, 112, 211, 212

BIO 416L Virology Laboratory 1 credit
Methods for replicating, isolating and characterizing viruses, as well as experimental methods used in the study of viruses. Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 416.

BIO 418 Endocrinology 3 credits
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. Prerequisites: BIO 111, 112, 211, 212

BIO 418L Endocrinology Laboratory 1 credit
Experimental laboratories researching current topics in endocrinology at the molecular, cellular and organismal levels. Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 418.

BIO 419 Cell Biology 3 credits
Recent developments in cell biology, including cell motility, gene expression, protein processing and sorting, signaling, cell division and death, and differentiation. Prerequisite: BIO 111, 112, 211, 212

BIO 419L Cell Biology Laboratory 1 credit
Experimental laboratories examining different cellular processes, including cytoskeleton, protein localization, and gene expression. Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 419.

BIO 425 Cellular Neurobiology 3 credits
Cellular and molecular mechanisms underlying nervous system function. Topics include neuron/glia interactions, signaling within the nervous system, neuroplasticity, and neurodegeneration. Prerequisites: BIO 111, 112, 211, 212

BIO 425L Cellular Neurobiology Laboratory 1 credit
Experimental laboratories researching current topics in cell and molecular neurobiology. Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 425.

BIO 426 Immunochemistry 3 credits
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

BIO 426L Immunochemistry Laboratory 1 credit
Current methods in immunological research and diagnosis. Designed to present available methodology and insight into the underlying principles. Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 426.

BIO 430 Human Nutrition and Metabolism 3 credits
Human nutrition, intermediary metabolism and disease are discussed. The biosynthesis and pharmacology of chemicals derived from plants and their importance to human health are considered. Prerequisites: BIO 111, 112, 211, 212

BIO 432 Developmental Biology 3 credits
A study of the basic principles that shape the development of a complex, multicellular organism from a single cell, with a particular emphasis being placed on the underlying cellular and molecular mechanisms. Multiple model organisms will be utilized to discuss relevant topics including fertilization, cell fate determination and differentiation, pattern formation, and organogenesis. The impact of developmental biology on medicine will be discussed, with a specific focus on regeneration. Prerequisites: BIO 111, 112, 211, 212
BIO 432L Developmental Biology Laboratory 1 credit
Examination of the cellular and molecular aspects of animal development using classical model organisms. Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 432.

BIO 435 Developmental Neurobiology 3 credits
Cellular and molecular mechanisms underlying development of the nervous system and neurodevelopmental disorders. Topics include: neural induction, neurogenesis, migration, axon guidance, synaptogenesis, and regeneration. Prerequisites: BIO 111, 112, 211, 212

BIO 435L Developmental Neurobiology Laboratory 1 credit
Experimental studies of the development and regeneration of nervous tissue using neuronal tissue culture and digital microscopy. Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 435.

BIO 440 Medical Biochemistry 3 credits
Biochemistry of disease. Includes examination of pathways and regulatory enzymes that lead to normal and disease states. Prerequisites: BIO 111, 112, 211, 212

BIO 444 Cancer Biology 3 credits
The study of 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 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 4 credits
Current approaches to studying cells using microscopy and digital imaging analysis. Students will learn to acquire digital microscopic images using light and fluorescence microscopy, to quantitatively analyze data from digital images, and to process digital images. Lab required. Three hours of lecture and three hours of lab per week. Prerequisites: BIO 111, 112, 211, 212

BIO 450 Molecular Biology 3 credits
Focus on nuclear organization and function. Topics include genome content and organization, chromatin structure and regulation, and epigenetic inheritance. Prerequisites: BIO 111, 112, 211, 212

BIO 450L Molecular Biology Laboratory 1 credit
Experimental laboratories examining the regulation of gene expression and how regulation affects expression. Three hours of lab per week. Corequisite: Concurrent enrollment in BIO 450.

BIO 498 Biology With Distinction Thesis 3 credits
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 3 credits
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

**BIO 109 Nutrition** 3 credits
How food intake influences us as individuals and as components of society, what food is, how we get and use food, processes regulating its use. Field 6

**BIO 116 Disease: Myth and Reality** 3 credits
Exploration of causation, treatment and prevention of illness. Objective: to increase awareness and understanding of health and disease. Field 6

**BIO 120 Biology in the News** 3 credits
The biological concepts underlying science articles appearing in the current news media, examining these concepts in the context of relevant economic, social and cultural issues. Topics will vary. Field 6

**BIO 125 Microbes and People** 3 credits
The relationship between microbes and their environment as they impact human disease, through food preparation and spoilage and environmental exposure. Field 6

**BIO 131 Biotechnology and Society** 3 credits
Relationship between biology, technology and society. Awareness of the impact of biotechnology on our society. Field 6

**BIO 132 Genes and People** 3 credits
How human characteristics are transmitted and affect future generations. Ethical and legal ramifications of genetic advances. Field 6

**BIO 135 Environmental Biology** 3 credits
Introduction to the complex interactions that occur between humans and their environments and how other life forms are impacted by these activities. Field 6

**BIO 221 Biology of Women** 3 credits
Biological principles applied to the human female. Structure, function, growth and development throughout the life cycle. Includes relevant social, psychological and medical information. Associated with Women’s Studies Program. Field 6

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Core Capstone Courses

**BIO 477 Plants and Society** 3 credits
Various ways in which plants affect human existence. Topics include food products, building (utilitarian) applications, medicinal and poisonous plants, propagation and improvement, roles in ecology. Core Capstone for all majors. *This course does not count for the biology major.*

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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** 4 credits
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** 4 credits
Examination of 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
CHEMISTRY

Chair: Mariusz M. Kozik, PhD

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 the 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.

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 Curriculum
All students must complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/.

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.

Learning Goals and Objectives
For Learning Goals and Objectives please go to http://www.canisius.edu/chemistry/learning-goals-objectives/.
### Major Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CHM 111/111L</td>
<td>General Chemistry I</td>
<td>4</td>
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<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>
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<tr>
<td>CHM 228/228L</td>
<td>Organic Chemistry II</td>
<td>4</td>
</tr>
<tr>
<td>CHM 230/230L</td>
<td>Analytical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHM 244</td>
<td>Inorganic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHM 301/301L</td>
<td>Classical Physical Chemistry</td>
<td>4/3</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>3</td>
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<tr>
<td>CHM 381-480-481</td>
<td>Seminars in Chemistry and Biochemistry</td>
<td>3</td>
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<tr>
<td>CHM 334/334L</td>
<td>Spectrometric Analysis</td>
<td>4</td>
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<tr>
<td>CHM 430/430L</td>
<td>Instrumental Analytical Chemistry (not required by the Health Professions track)</td>
<td>4</td>
</tr>
<tr>
<td>BCH 302</td>
<td>Cellular Biochemistry</td>
<td>3</td>
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</tbody>
</table>

### One year of physics (8 credits)

#### ACS certified track:

- **PHY 223/223L and PHY 224/224L**: General Physics for Science Majors

#### Other CHM tracks:

- **PHY 201/201L and PHY 202/202L** or **PHY 223/223L and PHY 224/224L**

### One year of mathematics (8 credits)

#### ACS certified track:

- **MAT 111 and MAT 112**: Calculus I and Calculus II

#### Other CHM tracks:

- **MAT 111 and MAT 141**: Calculus I and Inferential Statistics and Computers for Science or **MAT 111 and MAT 112**: Calculus I and Calculus II

#### Note:

Most pharmacy schools require MAT 111 and MAT 141. Some pharmacy schools require MAT 111, MAT 112, and MAT 141.

### Biology

#### Health professions track:

- **BIO 111/111L and BIO 112/112L**: Introductory Biology I and Lab or **BIO 111/111L and BIO 112/112L**: Introductory Biology II and Lab

#### Other CHM tracks:

- **BIO 111/111L**: Introductory Biology I and Lab

#### Note:

Most pharmacy schools require BIO 111/111L and BIO 112/112L, Microbiology (3), and one year of Anatomy and/or Physiology (6).
Major Electives:
Three major electives are required by each track.

CHM ACS certified track and CHM track require:
• one chemistry elective with lab (4 credits)
• two chemistry electives (6 credits)

CHM Health Professions track requires:
• one chemistry elective with lab (4 credits)
• one science elective with lab (4 credits)
• one science elective (3 credits)
• Science electives may come from CHM and BCH or from other science departments (BIO, PHY, CSC, MAT). BCH 450 or CHM 450 Research in Biochemistry or Chemistry (3 credits) and BCH 451 or CHM 451 Research in Biochemistry or Chemistry (4 credits) 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 so that work can be done 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 students 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 admission 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 credits) is highly recommended for students interested in pursuing a PhD degree. In addition, MAT 219 Linear Algebra (4 credits) and MAT 222 Differential Equations (4 credits) are highly recommended for students interested in pursuing a PhD degree in physical, inorganic, or analytical chemistry.

Recommended Semester Schedule for Major Course Requirements

Freshman Year
Fall
ALL CHM tracks:
• CHM 111/111L (4 credits)
• BIO 111/111L (4 credits)
• MAT 111 (4 credits)

Spring
CHM ACS certified track and CHM ACS certified track with business minor:
• CHM 112/112L (4 credits)
• PHY 223/223L (4 credits)
• MAT 112 (4 credits)
CHM track:
- CHM 112/112L (4 credits)
- MAT 112 or MAT 141 (4 credits)

CHM track with business minor:
- CHM 112/112L (4 credits)
- MAT 141 or ECO 255 (4/3 credits)

CHM Health Professions track:
- CHM 112/112L (4 credits)
- BIO 112/112L (4 credits)
- MAT 112 or MAT 141 (4 credits)

CHM Health Professions track with business minor:
- CHM 112/112L (4 credits)
- BIO 112/112L (4 credits)
- MAT 141 or ECO 255 (4/3 credits)

**Sophomore Year**

**Fall**

CHM ACS certified track and CHM ACS certified track with business minor:
- CHM 227/227L (4 credits)
- CHM 244 (3 credits)
- PHY 224/224L (4 credits)

CHM track, CHM Health Professions track, and both these tracks with business minor:
- CHM 227/227L (4 credits)
- CHM 244 (3 credits)
- PHY 201/201L (4 credits)

**Spring**

CHM ACS certified track:
- CHM 228/228L (4 credits)
- CHM 230/230L (4 credits)

CHM ACS certified track with business minor:
- CHM 228/228L (4 credits)
- CHM 230/230L (4 credits)
- ECO 102 (3 credits)
- MAT 141 or ECO 255 (4/3 credits)

CHM track and CHM Health Professions track:
- CHM 228/228L (4 credits)
- PHY 202/202L (4 credits)

CHM and CHM Health Professions tracks with business minor:
- CHM 228/228L (4 credits)
- PHY 202/202L (4 credits)
- ECO 102 (3 credits)

**Junior Year**

**Fall**

CHM ACS certified track:
- CHM 301/301L (4 credits)
- CHM 334/334L (4 credits)

CHM ACS certified track with business minor:
- CHM 301/301L (4 credits)
- CHM 334/334L (4 credits)
- ECO 101 (3 credits)
- MKT 201 (3 credits)

CHM track:
- CHM 334/334L (4 credits)
- BCH 301 (3 credits)

CHM track with business minor:
- CHM 334/334L (4 credits)
- BCH 301 (3 credits)
- ECO 101 (3 credits)

CHM Health Professions track:
- CHM 301 (3 credits)
- BCH 301 (3 credits)

CHM Health Professions track with business minor:
- CHM 301 (3 credits)
- BCH 301 (3 credits)
- ECO 101 (3 credits)

**Spring**

CHM ACS certified track:
- CHM 302/302L (4 credits)
- CHM 430/430L (4 credits)
- CHM 381 (1 credit)

CHM ACS certified track with business minor:
- CHM 302/302L (4 credits)
- CHM 430/430L (4 credits)
- CHM 381 (1 credit)
- MGT 101 (3 credits)
CHM track:
- CHM 230/230L (4 credits)
- CHM Elective (3 credits)
- CHM 381 (1 credit)

CHM track with business minor:
- CHM 230/230L (4 credits)
- CHM Elective (3 credits)
- CHM 381 (1 credit)
- MGT 101 (3 credits)

CHM Health Professions track:
- CHM 230/230L (4 credits)
- BCH 302 (3 credits)
- CHM 381 (1 credit)

CHM Health Professions track with business minor:
- CHM 230/230L (4 credits)
- BCH 302 (3 credits)
- CHM 381 (1 credit)
- MGT 101 (3 credits)

Senior Year

Fall
CHM ACS certified track:
- CHM Elective (3 credits)
- CHM 480 (1 credit)
- BCH 301 (3 credits)

CHM ACS certified track with business minor:
- CHM Elective (3 credits)
- CHM 480 (1 credit)
- BCH 301 (3 credits)
- ACC 201 (3 credits)

CHM track:
- CHM 301/301L (4 credits)
- CHM Elective (3 credits)
- CHM 480 (1 credit)

CHM track with business minor:
- CHM 301/301L (4 credits)
- CHM Elective (3 credits)
- CHM 480 (1 credit)
- ACC 201 (3 credits)
- MKT 201 (3 credits)

CHM Health Professions track:
- CHM Elective (3 credits)
- SCI Elective + Lab (4 credits)
- CHM 480 (1 credit)

CHM Health Professions track with business minor:
- CHM Elective + Lab (4 credit)
- CHM 480 (1 credit)
- ACC 201 (3 credits)
- MKT 201 (3 credits)

Spring
CHM ACS certified track:
- CHM Elective + Lab (4 credits)
- CHM Elective (3 credits)
- CHM 481 (1 credit)

CHM ACS certified track with business minor:
- CHM Elective + Lab (4 credits)
- CHM Elective (3 credits)
- CHM 481 (1 credit)
- FIN 201 (3 credits)

CHM track:
- CHM Elective + Lab (4 credits)
- CHM Elective (3 credits)
- CHM 480 (1 credit)

CHM track with business minor:
- CHM Elective + Lab (4 credits)
- CHM Elective (3 credits)
- CHM 481 (1 credit)
- FIN 201 (3 credits)

CHM Health Professions track:
- CHM Elective + Lab (4 credits)
- SCI Elective (3 credits)
- CHM 481 (1 credit)

CHM Health Professions track with business minor:
- CHM Elective + Lab (4 credits)
- SCI Elective (3 credits)
- CHM 481 (1 credit)
- FIN 201 (3 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 necessary. 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 necessary. Students must complete the appropriate minor request form.

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 credits)
- **Two semesters of Organic Chemistry with laboratory:** CHM 227/227L and CHM 228/228L (8 credits)
- **One semester of Analytical Chemistry with laboratory:** CHM 230/230L or CHM 334/334L or CHM 430/430L (4 credits)
  - **One semester of Physical Chemistry or Inorganic Chemistry:** CHM 301 or CHM 244 (3 credits)
- **Chemistry Elective:** One CHM 300 or 400 level course (3 credits)

**Chemistry Courses: 2013 - 2015**

**CHM 104 Energy, Environment, and Society** 3 credits
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 credits
Fundamental principles of chemical theory are presented by examining how key ideas came to fruition in the context of the times and individuals involved. This course is designed to instill an understanding of the sciences upon which important scientific and technological issues facing society today are based. Field 6. Spring

**CHM 109 (fall) followed by CHM 110 (spring): General Chemistry with Review I**
General Chemistry I with review for science majors. 7 credits

**CHM 109**, three lectures and one recitation per week. CHM 109 reviews some mathematical concepts, emphasizes dimensional analysis, nomenclature, stoichiometry, solutions, basic chemical reactions, and thermochemistry. Fall

**CHM 110**, three lectures, one recitation, as well as a 3-hr laboratory co-requisite. CHM 110 emphasizes atomic and molecular structure, periodic properties, gas laws, and states of matter. Spring

The CHM 109/110 sequence is equivalent to CHM 111 and a Free Elective. Students completing the CHM 109/110 sequence are eligible to take CHM 112 in the fall of their sophomore year or during the summer. A minimum grade of C- in CHM 109 is a prerequisite for CHM 110 and a minimum grade of C- in CHM 110 is a prerequisite for both CHM 112 (General Chemistry II) and CHM 227 (Organic Chemistry I).

**CHM 111: General Chemistry I** 4 credits
General Chemistry I for science majors, three lectures and one recitation per week, as well as a 3-hr laboratory co-requisite. This course is recommended for students with a very good background in mathematics and significant exposure to high school chemistry. The course emphasizes dimensional analysis, nomenclature, stoichiometry, solutions, basic chemical reactions, thermochemistry, atomic and molecular structure, periodic properties, gas laws, and states of matter. Prerequisite: a minimum score of 580 in MSAT
or instructor’s approval. Co-requisite: CHM 111 laboratory. Minimum C- in CHM 111 is a prerequisite for both CHM 112 (General Chemistry II) and CHM 227 (Organic Chemistry I).

Fall

CHM 112: General Chemistry II 4 credits
General Chemistry II for science majors, three lectures and one recitation per week, as well as a 3-hr laboratory co-requisite. The course emphasizes properties of solutions (including colligative properties), kinetics, chemical equilibrium concept, calculations involving acid/base and precipitation equilibria, thermodynamics (second and third law), electrochemistry, nuclear chemistry, chemistry of the environment, metals, and nonmetals, and basic coordination chemistry. Prerequisite: Minimum C- in CHM 111 or in CHM 110. Co-requisite: CHM 112 laboratory. Minimum C in CHM 112 is required for all chemistry and biochemistry majors.

Fall/Spring

CHM 227-228 Organic Chemistry 8 credits
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. Prerequisites for CHM 227: a minimum of C- in CHM 110 or 111; a minimum C- in CHM 227 is a prerequisite for CHM 228. Fall - Spring

CHM 230 Analytical Chemistry 4 credits
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. Prerequisites: CHM 112 with the minimum grade of C.

Spring

CHM 232 Analytical Environmental Chemistry 4 credits
Environmental applications of analytical chemistry. 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 2014

CHM 244 Inorganic Chemistry 3 credits
Electronic configuration of atoms, periodic classification of the elements, nature of chemical bonding, symmetry and group theory, structures and thermodynamics of solids, acid/base concepts, isomerism, bonding, reactions and spectroscopy of coordination compounds, and other aspects of modern inorganic chemistry. Prerequisites: CHM 112 with the minimum grade of C.

Fall

CHM 301 Classical Physical Chemistry 3 credits
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 credit
Selected experiments demonstrating principles of thermodynamics and chemical kinetics. One four-hour lab per week. Advanced Writing-intensive attribute. Prerequisites: CHM 230 Laboratory and CHM 301 or concurrent registration in CHM 301.

Fall

CHM 302 Modern Physical Chemistry 3 credits
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, CHM 244, MAT 111-112, PHY 201-202 or 223-224, or equivalent courses.

Spring

CHM 302L Modern Physical Chemistry Laboratory 1 credit
Selected spectroscopic experiments with applications to molecular structure. One four-hour lab per week. Prerequisites: CHM 334 Laboratory or CHM 430 Laboratory with the minimum grade of C- and CHM 302 or concurrent registration in CHM 302.

Spring

CHM 334 Spectrometric Analysis 4 credits
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 credits
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 2015

CHM 344 Metal Ions in Biological Systems 3 credits
Chemical processes in biological systems, which include participation of metal ions, are covered. This course begins with the principles of coordination chemistry and structural biochemistry. The rest of the course is 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: BIO 111, CHM 227-228, and CHM 244. Spring 2015

CHM 381-480-481 Chemistry and Biochemistry Seminar 1 credit each
CHM 381 Scientific Literature and Communication
CHM 480 Communicating Concepts in Chemistry
CHM 481 Communicating Research Literature (Oral Communication attribute)
Student-faculty seminar for majors. To be taken for three semesters. Prerequisites: CHM 228, CHM 244, and Junior standing. Spring - Fall - Spring

CHM 401 Modern Synthetic Methods 3 credits
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 2014

CHM 401L Modern Synthetic Methods Laboratory 1 credit
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 2014

CHM 420 Materials Chemistry 3 credits
A survey of topics and applications in modern materials chemistry including solid state materials, semiconductors, polymers, nanomaterials, and introductions to mechanical properties, device fabrication, and structure-activity relationships. Prerequisites: CHM 228 and CHM 244. Fall 2014

CHM 430 Instrumental Analytical Chemistry 4 credits
Advanced instrumental methods of analysis including spectroscopy, chromatography and various electrochemical techniques. Three lectures and one laboratory per week. Prerequisite: CHM 112. Spring

CHM 450 Research in Chemistry 3 credits
Independent research under the direction of a member of the chemistry faculty. Students are required to spend 9 hours per week conducting research. Research and consultation times will be arranged after approval of department chair. Fall/Spring

CHM 451 Research in Chemistry 4 credits
Independent research under the direction of a member of the chemistry faculty. Students are required to spend 12 hours per week conducting research. Research and consultation times will be arranged after approval of department chair. Fall/Spring

CHM 455 Medicinal Chemistry 3 credits
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 2014

CHM 490 Internships in Chemistry & Biochemistry 3 credits
Internships in chemical or biochemical industry under the direction of company and faculty supervisors. Prerequisite: Permission of the department chair. Fall/Spring
For information about internships, please see the department webpage.

CHM 498-499 Independent Study 3 credits
Independent study under the direction of the chemistry staff. Prerequisite: Permission of the department chair. Fall - Spring
Biochemistry

Chair: Mariusz M. Kozik, PhD

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 the 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). Both BCH tracks are appropriate for pre-health professional students.

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 go to the department’s website at http://www.canisius.edu/chemistry/index.dot for a more detailed description of the program, faculty, facilities, and academic and co-curricular opportunities.

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 Curriculum
All students must complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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.

Learning Goals and Objectives
For Learning Goals and Objectives please go to http://www.canisius.edu/chemistry/learning-goals-objectives/biochem-learning-goals/
### Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>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 only 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 (ACS track requires CHM 301/301L)</td>
<td>3/4</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</td>
<td>Cellular Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>BCH 403/403L</td>
<td>Molecular Biology</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:**
- CHM 334/334L or CHM 430/430L: Spectrometric Analysis Instrumental Analytical Chemistry 4

**One year of physics (8 credits):**
- BCH ACS certified track:
  - PHY 223/223L and PHY 224/224L: General Physics for Science Majors
- Other BCH tracks:
  - PHY 201/201L and PHY 202/202L or PHY 223/223L and PHY 224/224L: General Physics

**One year of mathematics (8 credits):**
- BCH ACS certified track:
  - MAT 111 and MAT 112: Calculus I Calculus II
- BCH track:
  - MAT 111 and MAT 141 or MAT 111 and MAT 112: Inferential Statistics and Computers for Science

**Note:** Most pharmacy schools require MAT 111 and MAT 141. Some pharmacy schools require MAT 111, MAT 112, and MAT 141

**One year of biology (8 credits):**
- BIO 111/111L and BIO 112/112L: Introductory Biology I and Lab Introductory Biology II and Lab

**Note:** Most pharmacy schools require BIO 111/111L and BIO 112/112L, Microbiology (3), and one year of Anatomy and/or Physiology (6).
Major Electives:
Biochemistry elective (3 credits)
(any 300 or 400 level BCH course and some CHM courses except BCH 301, BCH 302 and BCH 403)

Biochemistry or Chemistry elective (3 credits)
(not required for ACS certified track)
BCH 450 or CHM 450 Research in Biochemistry or Chemistry (3 credits) and BCH 451 or CHM 451 Research in Biochemistry or Chemistry (4 credits) 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 are often available so that work can be done 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 students 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
For pre-pharmacy students 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 credits) is highly recommended for students interested in pursuing a PhD degree.

Recommended Semester Schedule for Major Course Requirements:

Freshman Year
Fall
BCH ACS certified track, BCH track, and both tracks with business minor:
- CHM 111/111L (4 credits)
- BIO 111/111L (4 credits)
- MAT 111 (4 credits)

Spring
BCH ACS certified track and BCH ACS certified track with business minor:
- CHM 112/112L (4 credits)
- BIO 112/112L (4 credits)
- MAT 112 (4 credits)

BCH track:
- CHM 112/112L (4 credits)
- BIO 112/112L (4 credits)
- MAT 141 or MAT 112 (4 credits)

BCH track with business minor:
- CHM 112/112L (4 credits)
- BIO 112/112L (4 credits)
- MAT 141 or ECO 255 (4/3 credits)
Sophomore Year

Fall
BCH ACS certified track:
- CHM 227/227L (4 credits)
- CHM 244 (3 credits)

BCH ACS certified track with business minor:
- CHM 227/227L (4 credits)
- CHM 244 (3 credits)
- ECO 101 (3 credits)

BCH track and BCH track with business minor:
- CHM 227/227L (4 credits)
- CHM 244 (3 credits)
- PHY 201/201L (4 credits)

Spring
BCH ACS certified track:
- CHM 228/228L (4 credits)
- PHY 223/223L (4 credits)

BCH ACS certified track with business minor:
- CHM 228/228L (4 credits)
- PHY 223/223L (4 credits)
- ECO 102 (3 credits)
- MAT 141 or ECO 255 (4/3 credits)

BCH track:
- CHM 228/228L (4 credits)
- PHY 202/202L (4 credits)

BCH track with business minor:
- CHM 228/228L (4 credits)
- BCH Elective (3 credits)
- CHM 381 (1 credit)

BCH track:
- CHM 228/228L (4 credits)
- PHY 202/202L (4 credits)
- BCH Elective (3 credits)
- CHM 381 (1 credit)
- ECO 101 (3 credits)

Junior Year

Fall
BCH ACS certified track and BCH ACS certified track with business minor:
- BCH 301/301L (4 credits)
- BCH Elective (3 credits)
- CHM 480 (1 credit)
- BCH Elective (3 credits)
- ACC 201 (3 credits)
- BCH ACS certified track with business minor:
- BCH 301/301L (4 credits)
- BCH Elective (3 credits)
- CHM 480 (1 credit)
- ACC 201 (3 credits)

BCH track:
- BCH 301/301L (4 credits)
- CHM 334/334L (4 credits)
- (Either 334/334L or 430/430L is required)

BCH track with business minor:
- BCH 301/301L (4 credits)
- CHM 334/334L (4 credits)
- (Either 334/334L or 430/430L is required)
- ECO 101 (3 credits)

Spring
BCH ACS certified track:
- BCH 302 (3 credits)
- CHM 230/230L (4 credits)
- CHM 381 (1 credit)

BCH ACS certified track with business minor:
- BCH 302 (3 credits)
- CHM 230/230L (4 credits)
- CHM 381 (1 credit)
- MGT 101 (3 credits)

BCH track:
- BCH 302 (3 credits)
- BCH Elective (3 credits)
- CHM 381 (1 credit)

BCH track with business minor:
- BCH 302 (3 credits)
- BCH Elective (3 credits)
- CHM 381 (1 credit)
- MGT 101 (3 credits)

Senior Year

Fall
BCH ACS certified track:
- CHM 301/301L (4 credits)
- BCH Elective (3 credits)
- CHM 480 (1 credit)

BCH ACS certified track with business minor:
- CHM 301/301L (4 credits)
- BCH Elective (3 credits)
- CHM 480 (1 credit)
- ACC 201 (3 credits)
• MKT 201 (3 credits)

BCH track:
• CHM 301 (3 credits)
• CHM or BCH Elective (3 credits)
• CHM 480 (1 credit)

BCH track with business minor:
• CHM 301 (3 credits)
• CHM 480 (1 credit)
• ACC 201 (3 credits)
• MKT 201 (3 credits)

Spring
BCH ACS certified track:
• CHM 430/430L (4 credits)
• (Either CHM 334/334L or CHM 430/430L is required)
• CHM 302/302L (4 credits)
• BCH 403/403L (4 credits)
• CHM 481 (1 credit)

BCH ACS certified track with business minor:
• CHM 430/430L (4 credits)
• (Either CHM 334/334L or CHM 430/430L is required)
• CHM 302/302L (4 credits)
• BCH 403/403L (4 credits)
• CHM 481 (1 credit)
• FIN 201 (3 credits)

BCH track:
• CHM 430/430L (4 credits)
• (Either CHM 334/334L or CHM 430/430L is required)
• BCH 403/403L (4 credits)
• CHM 481 (1 credit)

BCH track with business minor:
• CHM 430/430L (4 credits)
• (Either CHM 334/334L or CHM 430/430L is required)
• BCH 403/403L (4 credits)
• CHM Elective (3 credits)
• CHM 481 (1 credit)
• FIN 201 (3 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.

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.
Biochemistry Courses: 2013-2015

**BCH 301 Introduction to Biochemistry**  3 credits  
Structure and function of biological molecules. Topics include proteins, carbohydrates, nucleic acids, lipids, enzyme kinetics, ligand binding, recombinant DNA technology and cell membrane structure and transport. Prerequisites: CHM 228 with the minimum grade of C-. *Fall*

**BCH 301L Introduction to Biochemistry Lab**  1 credit  
One four-hour lab per week. Prerequisite: BCH 301 or concurrent registration in BCH 301. *Fall*

**BCH 302 Cellular Biochemistry**  3 credits  
The more biological aspects of biochemistry. Topics include signal transduction, bioenergetics, metabolism of carbohydrates, lipids, proteins and metabolic control, emphasizing hormones. Prerequisites: BCH 301 with the minimum grade of C-. *Spring*

**BCH 403 Molecular Biology**  3 credits  
Biochemical processes at the cellular and molecular level. Topics include DNA structure in chromosomes, replication, repair, and recombination, DNA transcription, RNA structure and function, protein translation and regulation of these processes. Prerequisites: BCH 301 with a minimum grade of C-. *Spring*

**BCH 403L Molecular Biology Lab**  1 credit  
One four-hour lab per week. Advanced Writing-intensive attribute. Prerequisites: BCH 301L and BCH 403 (or concurrent registration in BCH 403). *Spring*

**BCH 450 Research in Biochemistry**  3 credits  
Independent research under the direction of the biochemistry faculty. Students are required to spend 9 hours per week conducting research. Research and consultation times to be arranged after approval of department chair. *Fall – Spring*

**BCH 451 Research in Biochemistry**  4 credits  
Independent research under the direction of the biochemistry faculty. Students are required to spend 12 hours per week conducting research. Research and consultation times to be arranged after approval of department chair. *Fall – Spring*
Chair: Thomas M. Banchich, PhD

Introduction
The Classics Major at Canisius is designed to accommodate students interested in both ancient Greek and Roman culture. We offer three tracks of study: Greek Language and Hellenic Studies (CLSG), Latin Language and Roman Studies (CLSL), and Classical Studies (CLSS). Please see the department's website at http://www.canisius.edu/classics/index.dot for a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities.

Learning Goals and Objectives
For Learning Goals and Objectives please go to http://www.canisius.edu/classics/learning-goals-objectives/

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 Curriculum
All students must complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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.

Classics Major

<table>
<thead>
<tr>
<th>All Classics Majors:</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS 103 Greek History or CLS 104 Roman History</td>
<td>3</td>
</tr>
<tr>
<td>CLS 205 Mirror of the Past: Greece or CLS 206 Mirror of the Past: Rome</td>
<td>3</td>
</tr>
</tbody>
</table>

Greek Language and Hellenic Studies Track/CLSG:

| 6 Classical Greek/CLG courses (at least 6 credits at the 300 level or above) | 18 |
| 4 Classics/CLG/CLL/CLS electives (no more than two of which may be Interdepartmental) | 12 |

Latin Language and Roman Studies Track/CLSL:

| 6 Latin/CLL courses (at least 6 credits at the 300 level or above) | 18 |
| 4 Classics/CLG/CLL/CLS electives (no more than two of which may be Interdepartmental) | 12 |

Classical Studies Track/CLSS:

| 4 Classical Greek/CLG OR 4 Latin/CLL courses (at least 6 credits at the 200 level or above) | 12 |
| 6 Classics/CLG/CLL/CLS electives (no more than two of which may be Interdepartmental) | 18 |

Total Credits: 36 credits
## Major Electives
Any CLG, CLL, or CLS course not used as a required course within the major may serve as a Classics elective.

### Departmental Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>CLG 101 Elementary Greek</td>
<td>3</td>
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<tr>
<td>CLG 102 Elementary Greek</td>
<td>3</td>
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<tr>
<td>CLG 201-218</td>
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<tr>
<td>CLG 301-318</td>
<td>3</td>
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<tr>
<td>CLG 400 <em>Paideia</em></td>
<td>3</td>
</tr>
<tr>
<td>CLL 101 Elementary Latin</td>
<td>3</td>
</tr>
<tr>
<td>CLL 102 Elementary Latin</td>
<td>3</td>
</tr>
<tr>
<td>CLL 201-218</td>
<td>3</td>
</tr>
<tr>
<td>CLL 301-318</td>
<td>3</td>
</tr>
<tr>
<td>CLL 400 <em>Humanitas</em></td>
<td>3</td>
</tr>
</tbody>
</table>

(6 CLL credits strongly recommended for students on CLS-Greek track)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS 200 The 300: Myth and Reality</td>
<td>3</td>
</tr>
<tr>
<td>CLS 207 Mythology and Literature</td>
<td>3</td>
</tr>
<tr>
<td>CLS 208 Epic Heroes</td>
<td>3</td>
</tr>
<tr>
<td>CLS 214 Greek and Roman Tragedy</td>
<td>3</td>
</tr>
<tr>
<td>CLS 215 Greek and Roman Comedy</td>
<td>3</td>
</tr>
<tr>
<td>CLS 300 Roman Law and Society</td>
<td>3</td>
</tr>
<tr>
<td>CLS 301 The Age of Cicero</td>
<td>3</td>
</tr>
<tr>
<td>CLS 308 Pagans and Christians</td>
<td>3</td>
</tr>
<tr>
<td>CLS 309 Greek and Roman Religion</td>
<td>3</td>
</tr>
<tr>
<td>CLS 311 Alexander the Great</td>
<td>3</td>
</tr>
<tr>
<td>CLS 312 The Greek Enlightenment</td>
<td>3</td>
</tr>
</tbody>
</table>

(6 CLG credits strongly recommended for students on CLS-Latin track)

### Interdepartmental Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 230 Introduction to Archaeology</td>
<td>3</td>
</tr>
<tr>
<td>FAH 101 Introduction to Art History</td>
<td>3</td>
</tr>
<tr>
<td>FAH 210 Ancient Egyptian and Near Eastern Art</td>
<td>3</td>
</tr>
<tr>
<td>FAH 213 Greek and Roman Art</td>
<td>3</td>
</tr>
<tr>
<td>HIS 106 The Medieval World</td>
<td>3</td>
</tr>
<tr>
<td>HON 110 Western Tradition I</td>
<td>3</td>
</tr>
<tr>
<td>PHI 301 Ancient Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 302 Medieval Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 401 Seminar in Ancient Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 402 Seminar in Medieval Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>RST 251 Greek Exegesis</td>
<td>3</td>
</tr>
<tr>
<td>RST 311 Paul’s New Testament Epistles</td>
<td>3</td>
</tr>
<tr>
<td>RST 325 Early Christianity</td>
<td>3</td>
</tr>
</tbody>
</table>

### Major Experiences
Classics majors and minors are encouraged to become members of the [http://canisius.edu/classics/learn/](http://canisius.edu/classics/learn/). 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>Freshman</td>
<td><strong>CLS 103</strong>&lt;br&gt;or&lt;br&gt;<strong>CLS 205</strong> (3 credits)&lt;br&gt;&lt;br&gt;<strong>CLSG: CLG 101</strong> (3 credits)&lt;br&gt;or&lt;br&gt;<strong>CLSL: CLL 101</strong> (3 credits)</td>
<td><strong>CLS 104</strong>&lt;br&gt;or&lt;br&gt;<strong>CLS 206</strong> (3 credits)&lt;br&gt;&lt;br&gt;<strong>CLSG: CLG 102</strong> (3 credits)&lt;br&gt;or&lt;br&gt;<strong>CLSL: CLL 102</strong> (3 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td><strong>CLS 207</strong>&lt;br&gt;or&lt;br&gt;other major elective (3 credits)&lt;br&gt;&lt;br&gt;<strong>CLSG: CLG 200 level</strong> (3 credits)&lt;br&gt;or&lt;br&gt;<strong>CLSL: CLL 200-level</strong> (3 credits)</td>
<td><strong>CLS 207</strong>&lt;br&gt;or&lt;br&gt;other major elective (3 credits)&lt;br&gt;&lt;br&gt;<strong>CLSG: CLG</strong>&lt;br&gt;200-level (3 credits)&lt;br&gt;or&lt;br&gt;<strong>CLSL: CLL</strong>&lt;br&gt;200-level (3 credits)</td>
</tr>
<tr>
<td>Junior</td>
<td><strong>CLSG: CLG 200</strong>&lt;br&gt;or&lt;br&gt;<strong>300-level</strong> (3 credits)&lt;br&gt;&lt;br&gt;<strong>CLL 101</strong> (3 credits)&lt;br&gt;or&lt;br&gt;<strong>CLSL: CLL 200</strong>&lt;br&gt;or&lt;br&gt;<strong>300-level</strong> (3 credits)&lt;br&gt;or&lt;br&gt;<strong>CLG 101</strong> (3 credits)&lt;br&gt;or&lt;br&gt;<strong>Major elective</strong> (3 credits)</td>
<td><strong>CLSG: CLG</strong>&lt;br&gt;300-level (3 credits)&lt;br&gt;or&lt;br&gt;<strong>CLL 102</strong> (3 credits)&lt;br&gt;or&lt;br&gt;<strong>CLSL: CLL</strong>&lt;br&gt;300-level (3 credits)&lt;br&gt;or&lt;br&gt;<strong>CLG 102</strong> (3 credits)&lt;br&gt;or&lt;br&gt;<strong>Major elective</strong></td>
</tr>
<tr>
<td>Senior</td>
<td><strong>CLSG: CLG 300-level</strong>&lt;br&gt;(3 credits)&lt;br&gt;or&lt;br&gt;<strong>CLSL: CLL 300-level</strong>&lt;br&gt;(3 credits)&lt;br&gt;or&lt;br&gt;<strong>Major elective</strong></td>
<td><strong>CLSG: CLG 400</strong>&lt;br&gt;(3 credits)&lt;br&gt;or&lt;br&gt;<strong>CLSL: CLL 400</strong>&lt;br&gt;(3 credits)&lt;br&gt;or&lt;br&gt;<strong>Major elective</strong></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. 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. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. Minors generally require from six to eight 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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classical language: two semesters of Latin or Greek</td>
<td>6</td>
</tr>
<tr>
<td>CLL or CLG</td>
<td>6</td>
</tr>
<tr>
<td>CLS 103 or CLS 104</td>
<td>3</td>
</tr>
<tr>
<td>CLS 205 or CLS 206</td>
<td>3</td>
</tr>
<tr>
<td>Classics electives: two upper-level (select from any CLG, CLL or CLS courses at the 200-level or above; FAH 210 and 213)</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total (6 courses)** 18
Classics Courses: 2013-2015

CLS 103 Greek History (Accepted for HIS credit) 3 credits
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 credits
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 credits
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 credits
Fundamental social, political, moral, religious, and intellectual aspects of the human condition as reflected in a variety of Greek writers, art, and artifacts. (Global Awareness Attribute, Field 3) Fall

CLS 206 Mirror of the Past: Rome 3 credits
Fundamental social, political, moral, religious, and intellectual aspects of the human condition as reflected in a variety of Roman writers, art, and artifacts. (Global Awareness Attribute, Field 3) Spring

CLS 207 Mythology and Literature 3 credits
Origin, content, and interpretation of the major classical myths. Modern approaches to mythology. Influence upon literature and ethical principles and theories. (Ethics Attribute, Field 3) Fall/Spring

CLS 208 Epic Heroes 3 credits
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 2014

FAH 210 Ancient Egyptian and Near Eastern Art (Accepted for CLS credit) 3 credits
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 2014

FAH 213 Greek and Roman Art (Accepted for CLS credit) 3 credits
A study of the temples, tombs, pottery, painting, and sculpture of the Greek and Roman worlds, of what these objects meant to their creators, and of how they have influenced the things we see around us and our feelings about beauty and art. (Field 3) Spring 2015

CLS 214 Greek and Roman Tragedy (Accepted for HIS & WST credit) 3 credits
Study of Greek and Roman tragedy, its origins, cultural setting, staging, performance, and influence. Readings from Aeschylus, Sophocles, Euripides, and Seneca. (Ethics and Oral Communication Attributes, Field 3) Fall 2013

CLS 215 Greek and Roman Comedy 3 credits
Study of Greek and Roman comedy, its origins, cultural settings, staging, performance, and influence. Readings from Aristophanes, Menander, Plautus, and Terence. (Field 3) Spring 2014

CLS 300 Roman Law and Society (Accepted for HIS & WST credit) 3 credits
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) Spring 2014, Fall 2014, or Spring 2015
CLS 301 The Age of Cicero  
(Accepted for HIS credit)  3 credits  
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) Fall 2014 or Spring 2015

CLS 308 Pagans and Christians  
(Accepted for HIS & RST credit)  3 credits  
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 2014

CLS 309 Greek and Roman Religion  
(Accepted for RST credit)  3 credits  
Religious thought and action in ancient Greece and Rome from Homer through the 2nd century A.D. Polytheism, anthropomorphism, ritual, cult and sacrifice. (Oral Communication Attribute, Field 1) Fall 2015

CLS 311 Alexander the Great  
(Accepted for HIS credit)  3 credits  
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 2014

CLS 312 The Greek Enlightenment  
(Accepted for HIS credit)  3 credits  
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 2015

Greek Language Courses (CLG)  

CLG 101 Elementary Greek  3 credits  
Intensive introduction to the grammar, syntax, and vocabulary of classical Greek. Selected readings. Fall

CLG 102 Elementary Greek  3 credits  
Intensive introduction to the grammar, syntax, and vocabulary of classical Greek. Selected readings. Prerequisite: CLG 101 or instructor’s permission. Spring

CLG 201-206 Greek Literature  3 credits each  
Selected Greek literary authors, genres, or themes. (Field 3) Fall/Spring

CLG 207-212 Greek Historians  3 credits each  
Selected Greek historical authors, genres, or themes. (Field 4) Fall/Spring

CLG 213-218 Greek Philosophers  3 credits each  
Selected Greek philosophical authors, genres, or themes. (Field 2) Fall/Spring

CLG 301-306 Readings in Greek Literature  3 credits each  
Selected Greek literary authors, genres, or themes. (Field 3) Fall/Spring

CLG 307-312 Readings in Greek History  3 credits each  
Selected Greek historical authors, genres, or themes. (Field 4) Fall/Spring

CLG 313-318 Readings in Greek Philosophy  3 credits each  
Selected Greek philosophical authors, genres, or themes. (Field 2) Fall/Spring

GLG 400 Paideia  3 credits  
Selected Greek authors, texts, themes, or genres. (Core Capstone) Prerequisites: at least two semesters of ancient Greek, completion of core requirements, and chair’s permission. Fall/Spring
Latin Language Courses (CLL)

CLL 101 Elementary Latin 3 credits
Intensive introduction to the grammar, syntax, and vocabulary of classical Latin. Selected readings. Fall

CLL 102 Elementary Latin 3 credits
Intensive introduction to the grammar, syntax, and vocabulary of classical Latin. Selected readings. Prerequisite: CLL 101 or instructor's permission. Spring

CLL 201-206 Latin Literature 3 credits each
Selected Latin literary authors, genres, or themes. (Field 3)
Fall/Spring

CLL 207-212 Roman Historians 3 credits each
Selected Roman historical authors, genres, or themes. (Field 4)
Fall/Spring

CLL 213-218 Roman Philosophers 3 credits each
Selected Roman philosophical authors, genres, or themes. (Field 2) Fall/Spring

CLL 301-306 Readings in Latin Literature 3 credits each
Selected Latin literary authors, genres, or themes. (Field 3)
Fall/Spring

CLL 307-312 Readings in Roman History 3 credits each
Selected Roman historical authors, genres, or themes. (Field 4) Fall/Spring

CLL 313-318 Readings in Roman Philosophy 3 credits each
Selected Roman philosophical authors, genres, or themes. (Field 2) Fall/Spring

CLL 400 Humanitas 3 credits
Selected Latin authors, texts, themes, or genres. (Core Capstone) Prerequisites: at least two semesters of Latin, completion of core requirements, and chair's permission. Fall/Spring
COMMUNICATION STUDIES

Chair: John S. Dahlberg, PhD

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. In practical terms, students examine how we communicate as families, couples and friends. We study how we interact in work and corporate settings. How we persuade and are persuaded, as individuals, professionals and intended targets. And how we affect others through various media, from oral to written to electronic to digital. The program offers students a variety of opportunities to acquire professional knowledge, skills 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. In a rapidly changing and highly competitive job market, 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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to our website at http://www.canisius.edu/communication/index.dot

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).

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 716.888.2115 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at www.canisius.edu/academics/core/.

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.

Learning Goals and Objectives
For Learning Goals and Objectives please go to http://www.canisius.edu/communication/learning-goals-objectives/.
## Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Major Required Courses (6 Courses)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COM 201</td>
<td>Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM 202</td>
<td>Communication Theory</td>
<td>3</td>
</tr>
<tr>
<td>COM 203</td>
<td>Writing for the Public Media</td>
<td>3</td>
</tr>
<tr>
<td>COM 204</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM 205</td>
<td>Mass Communication and Society</td>
<td>3</td>
</tr>
<tr>
<td>COM 206</td>
<td>Introduction to Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>B. Sequence Courses (2 courses) 6 credits</td>
<td></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>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 302</td>
<td>Small Group Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM 304</td>
<td>Family Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM 311</td>
<td>Principles of Advertising</td>
<td>3</td>
</tr>
<tr>
<td>COM 312</td>
<td>Public Relations: Principles and Practices</td>
<td>3</td>
</tr>
<tr>
<td>COM 315</td>
<td>Advertising and the Creative Process</td>
<td>3</td>
</tr>
<tr>
<td>COM 318</td>
<td>Organizational Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM 319</td>
<td>Training and Development</td>
<td>3</td>
</tr>
<tr>
<td>COM 320</td>
<td>Advertising Writing</td>
<td>3</td>
</tr>
<tr>
<td>COM 323</td>
<td>Social Effects of Media</td>
<td>3</td>
</tr>
<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 328</td>
<td>Scriptwriting</td>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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 Account Strategies</td>
<td>3</td>
</tr>
<tr>
<td>COM 354</td>
<td>Persuasion</td>
<td>3</td>
</tr>
<tr>
<td>COM 355</td>
<td>Advertising Media Planning/Buying</td>
<td>3</td>
</tr>
<tr>
<td>COM 359</td>
<td>Communication and Sports</td>
<td>3</td>
</tr>
<tr>
<td>COM 360</td>
<td>Health Campaigns</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 368</td>
<td>Analysis of Daytime Television</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 376</td>
<td>Film Genres</td>
<td>3</td>
</tr>
<tr>
<td>COM 382</td>
<td>Issues in Broadcasting</td>
<td>3</td>
</tr>
<tr>
<td>COM 385</td>
<td>Television &amp; Children</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 418</td>
<td>Interviewing</td>
<td>3</td>
</tr>
<tr>
<td>COM 422</td>
<td>Public Relations Campaigns</td>
<td>3</td>
</tr>
<tr>
<td>COM 479</td>
<td>World Cinema</td>
<td>3</td>
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<tr>
<td>COM 488</td>
<td>Internship I Seminar</td>
<td>3-12</td>
</tr>
<tr>
<td>COM 491</td>
<td>Video Institute I</td>
<td>3</td>
</tr>
<tr>
<td>COM 492</td>
<td>Video Institute II</td>
<td>3</td>
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<tr>
<td>COM 493</td>
<td>Video Institute III</td>
<td>3</td>
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<tr>
<td>COM 494</td>
<td>Video Institute IV</td>
<td>3</td>
</tr>
<tr>
<td>COM 498</td>
<td>Internship II Seminar</td>
<td>3-9</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 internships during their Junior and Senior years. 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, chair, and Associate Dean. Please note that Independent Studies are granted only in very specific circumstances. See the department chair for more information.

**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 credits)</td>
<td>COM 204 (3 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>COM 206 (3 credits) or COM Elective (3 credits)</td>
<td>COM 203 (3 credits) or COM Elective (3 credits)</td>
</tr>
<tr>
<td>Junior</td>
<td>COM 206 (3 credits) or COM Elective (3 credits)</td>
<td>COM 203 (3 credits) or COM Elective (3 credits)</td>
</tr>
<tr>
<td>Senior</td>
<td>COM Elective (3 credits)</td>
<td>COM Elective (3 credits)</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, 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.

**Communication Studies Courses: 2013-2015**

**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** 3 credits
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** 3 credits
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** 3 credits
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** 3 credits
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** 3 credits
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** 3 credits
The fundamentals of the scientific method, especially the basics of research methods, designs and hypothesis testing.

**COM 302 Small Group Communication** 3 credits
Communication variables in small groups involving task, maintenance, leadership, conformity, shift-to-risk and development. Some emphasis on skill development.

**COM 304 Family Communication** 3 credits
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** 3 credits
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** 3 credits
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 3 credits
Study of techniques, tools and theories for generating innovative concepts and ideas. Emphasize application to advertising context. DMA elective.

COM 318 Organizational Communication 3 credits
Communication principles and practices, including communicator style variables, communication flow and competent superior-subordinate communication.

COM 319 Training and Development 3 credits
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 3 credits
Covers a variety of ways of developing advertising copy (copywriting) and creative concepts for persuasive advertising pieces. Includes workshop writing for print, television and radio commercials, and social media.

COM 325 Media Literacy 3 credits
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, JRN elective.

COM 327 Gender Differences in Human Communication 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
Explores ethics across media disciplines through the work of professional communicators—journalists, broadcasters, advertising and public relations practitioners. Develop practices of making crucial media decisions based on principles and idealism. Ethics attribute.

COM 353 Advertising Account Strategies 3 credits
Account management is a critical component of marketing and communications. We’ll cover the practical aspects of planning, client-agency relationships, functioning effectively in a creative environment, working with media outlets and start to learn how to develop an integrated marketing communications program.

COM 359 Communication and Sports 3 credits
Why do so many people enjoy playing, watching, and talking about sports? This course examines the significance of interpersonal communication in the context of sports. Communication interactions between coaches and athletes, athletes and teammates, coaches and parents, and parents and athletes are explored.
COM 361 Introduction to Television Production 3 credits
Studio techniques, lighting, sound recording, set design, electronic graphics and editing, production of live and edited programs in studio. DMA elective.

COM 374 Film History 3 credits
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 3 credits
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 376 Film Genres 3 credits
Students who are interested in film professionally or personally are invited to view sequences from the finest motion pictures made in the past 100 years. The course will present an overview of the types (genres) of films, including: Action-Adventure, Animation, Avant-Garde, Biopic, Children's Comedy, Crime, Cult Movies, Documentary, Drama, Film Noir Historical, Horror, Melodrama, Musical, Mystery, Romance, Science Fiction and Fantasy, Serials, War, and the Western.

COM 385 Television and Children 3 credits
Learn about the role of television in children's lives. Course explores children's television use, the development and content of children's television programs (both commercial and educational), television and the family, and children's advertising.

COM 412 Public Relations Case Studies 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3-12 credits
Student experientially learns communication functions in a compatible 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 3-9 credits
Sequel to COM 488 for students taking multiple internships. 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 3 credits
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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>
<td>3</td>
</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>
<td>3</td>
</tr>
<tr>
<td>DMA 385</td>
<td>Digital Filmmaking</td>
<td>3</td>
</tr>
<tr>
<td>DMA 442</td>
<td>Advanced Web Design</td>
<td>3</td>
</tr>
<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>FAS 240</td>
<td>Color Photography</td>
<td>3</td>
</tr>
<tr>
<td>FAS 241</td>
<td>Intermediate 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>
</tr>
<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>
</tr>
<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>
Chair: Jeffrey J. McConnell, PhD

Introduction
A degree in computer science from Canisius College provides you with the experience and background required to continue with graduate school or to find employment in a variety of fields. Our graduates enjoy challenging and lucrative careers all over the country in many types of companies, from banking to the defense industry, from web startups to major corporations. The computer science major provides you with an essential theoretical background along with practical programming experience and knowledge about many of the important and cutting edge areas of computer science, including artificial intelligence, web and app development, software engineering, databases, operating systems, and distributed computing.

For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/computer-science/index.dot

Learning Goals and Objectives
For Learning Goals and Objectives please go to http://www.canisius.edu/computer-science/learning-goals-objectives/

Qualifications
Students must maintain a 2.0 GPA in the 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
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. Majors should work closely with their advisors to develop their academic programs, discuss career expectations, choose their major electives, and plan their co-curricular or supplemental academic experiences.

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

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 additional mathematics or computing courses as well as courses in ethics or logic that are offered by the Philosophy Department.

Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIF 101/L or CSC 107/L or CSC 108/L or CSC 109/L or CSC 127/L</td>
<td>Introduction to Bioinformatics</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>Computer Programming for Science</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>Introduction to Web Computing</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>Robotics Introduction to Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>Introduction to Game Design</td>
<td>4</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>
<tr>
<td>CSC 253/L</td>
<td>Computer Hardware</td>
<td>4</td>
</tr>
<tr>
<td>CSC 281</td>
<td>Automata and Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>CSC 310/L</td>
<td>Information Organization and Processing</td>
<td>4</td>
</tr>
<tr>
<td>CSC 330/L</td>
<td>Distributed Computing</td>
<td>4</td>
</tr>
<tr>
<td>CSC 351/L</td>
<td>Comparative Programming Languages</td>
<td>4</td>
</tr>
<tr>
<td>CSC 360/L</td>
<td>Intelligent Systems</td>
<td>4</td>
</tr>
<tr>
<td>CSC 391</td>
<td>Junior Seminar</td>
<td>1</td>
</tr>
<tr>
<td>CSC 395/L</td>
<td>Software Engineering</td>
<td>4</td>
</tr>
<tr>
<td>CSC 491</td>
<td>Senior Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>
Major Elective
One additional course at the 300/400 level is required. These courses cover a variety of topics including web programming, advanced object oriented programming and design patterns, cryptography, app development, graphics, numerical analysis and bioinformatics. All these courses are either 3 or 4 credits. Faculty teach these courses on a rotating basis. To determine what is offered each semester consult the class schedule.

Recent electives include
CSC 313/L Advanced Programming Topics
CSC 320/L Socially Conscious App Development
CSC 325/L Graphics
CSC 380/L Web Development
BIF 400/L Advanced Algorithms
MAT 341 Numerical Analysis

Required Mathematics Courses for both the BA and the BS
MAT 111 Calculus I (4)
MAT 191 Discrete Mathematics or MAT 230 Logic, Sets, Proofs (4)

Additional Requirements for the BA only
Completion of an approved minor in another department or program

Additional Requirements for the BS only
MAT 112 Calculus II (4)
2-semester science major sequence with lab:
BIO 111/L-112/L (8), CHM 111/L-112/L (8), or
PHY 223/L-224/L (8)
MAT 141 Inferential Statistics and Computers for Science (4) or
MAT 219 Linear Algebra (4) or MAT 351 Probability and Statistics (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/L, CSC 107/L, CSC 108/L, CSC 109/L, CSC 127/L (4)</td>
<td>MAT 111/L (4)</td>
</tr>
<tr>
<td></td>
<td>MAT 111 (4)</td>
<td>BS Only: MAT 112 (4)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>CSC 212/L (4)</td>
<td>CSC 213/L (4)</td>
</tr>
<tr>
<td></td>
<td>CSC 253/L (4)</td>
<td>CSC 281 (3)</td>
</tr>
<tr>
<td></td>
<td>BS Only: MAT 141 (4) or other approved MAT</td>
<td>MAT 191 (4)</td>
</tr>
<tr>
<td></td>
<td>BS Only: Science Sequence</td>
<td>BS Only: Science Sequence</td>
</tr>
<tr>
<td>Junior/Senior</td>
<td>CSC Elective (3-4) (take 1 elective in Jr or Sr year)</td>
<td>CSC Elective (3-4) (take 1 elective in Jr or Sr year)</td>
</tr>
<tr>
<td></td>
<td>CSC 310/L (4)</td>
<td>CSC 360/L (4)</td>
</tr>
<tr>
<td></td>
<td>CSC 330/L (4)</td>
<td>CSC 395/L (4)</td>
</tr>
<tr>
<td></td>
<td>CSC 351/L (4)</td>
<td>CSC 391 (1) (take Fall or Spring of Jr year)</td>
</tr>
<tr>
<td></td>
<td>CSC 391 (1) (take Fall or Spring of Jr year)</td>
<td>CSC 491 (1) (take Fall or Spring of Sr Year)</td>
</tr>
<tr>
<td></td>
<td>CSC 491 (1) (take Fall or Spring of Sr Year)</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 many cases additional course work may be required. In order to declare a dual major, the student must complete a dual major request form and obtain the signature of each department chairperson and the appropriate associate dean. In the past, Computer Science majors have had dual majors in many other areas, including Physics, Mathematics, Digital Media Arts, Religious Studies, English and Classics.

Minors: Two Minors are Offered

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Science Minor (5 courses, 20 credit hours)</td>
<td></td>
</tr>
<tr>
<td>Choose one of the following:</td>
<td></td>
</tr>
<tr>
<td>BIF 101/L Introduction to Bioinformatics</td>
<td>4</td>
</tr>
<tr>
<td>CSC 107/L Computer Programming for Science</td>
<td>4</td>
</tr>
<tr>
<td>CSC 108/L Introduction to Web Computing</td>
<td>4</td>
</tr>
<tr>
<td>CSC 109/L Robotics Introduction to Computer Science</td>
<td>4</td>
</tr>
<tr>
<td>CSC 127/L Introduction to Game Design</td>
<td>4</td>
</tr>
<tr>
<td>The following courses are required:</td>
<td></td>
</tr>
<tr>
<td>CSC 111/L Introduction to Programming</td>
<td>4</td>
</tr>
<tr>
<td>CSC 212/L Data Structures</td>
<td>4</td>
</tr>
<tr>
<td>CSC 281 Automata and Algorithms</td>
<td>3</td>
</tr>
<tr>
<td>MAT 191 Introduction to Discrete Mathematics</td>
<td>4</td>
</tr>
</tbody>
</table>

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. Students who are dual majors in the arts or humanities should choose the BA since their other major fulfills the BA minor requirement. However, students whose second major is a science 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) are offered every two years on a rotating schedule. 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.

The CSC department maintains a lab for use by majors and minors that contains a number of computers that provide access to departmental and college-wide software along with a printer.
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 earn credit for an internship, but the experience must include a significant learning component that does not overlap with required coursework and must be pre-approved by the department chair. The Internship cannot count as the CSC elective.

**Computer Science Courses: 2013-2015**

**CSC 107/L Computer Programming for Science** 4 credits
Introduction to the computer and programming using C with special emphasis on scientific and mathematical applications. Fall

**CSC 108/L Introduction to Web Computing** 4 credits
Introduction to computer science through web sites, web pages, web page programming, HTML, XML, CSS and JavaScript. The history and social impact of computers, networks and the World Wide Web are included in the course. Core: Field 7, Ethics. Fall and Spring

**CSC 109/L Robotics Introduction to Computer Science** 4 credits
Introduction to computer science through robotics, the basics of artificial intelligence and the fundamental ideas of logic, algorithms, computer systems and programming. Includes ethical issues in robotics. Core: Field 7, Ethics. Fall

**CSC 111/L Introduction to Programming** 4 credits
Algorithms, programming, computers, and applications to problem solving in Java. Prerequisite: One of: BIF 101/L, CSC 107/L, CSC 108/L, CSC 109/L or CSC 127/L. Spring

**CSC 127/L Introduction to Game Design** 4 credits
Computer game development and underlying computer concepts necessary for game design. Game components related to the player, stories, characters, game play, graphics, the interface and audio. Core: Field 7, Diversity, Oral Communication. Fall

**CSC 212/L Data Structures** 4 credits
Basic concepts of data structures, including lists, stacks and queues. User-defined structures and abstract data types. Prerequisites: C or better in CSC 111/L. Fall

**CSC 213/L Large Scale Programming** 4 credits
Introductory concepts of software engineering applied to the design and implementation of larger software systems. Advanced data structures. Prerequisites: CSC 212/L. Spring

**CSC 253/L Computer Hardware** 4 credits
Introduction to digital logic, Boolean algebra, hardware and computer organization. Overview of current architectures. Prerequisites: CSC 111/L. Fall

**CSC 281 Automata and Algorithms** 3 credits
Formal language theory including finite and pushdown automata, grammars, Turing Machines and the Halting Problem. Provides an introduction to the design and analysis of algorithms, including classes of problems and methods for analysis. Prerequisite: CSC 212/L. 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/L Information Organization and Processing** 4 credits
Databases, high-level organization and processing of information, SQL, and ethical use of information. Prerequisites: CSC 212/L. Fall 2013

**CSC 313/L Advanced Programming Topics** 4 credits
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/L.
CSC 320/L – Socially Conscious App Development 4 credits
Examines the issues involved in developing apps for the iOS platform (iPad, iPhone, and iPad) including interaction and interface design, objective-C, accessibility, ethical issues, and social justice and impact. Prerequisites: CSC 212/L. Core: Core Capstone. Spring 2014

CSC 325/L Computer Graphics 4 credits
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/L.

CSC 330/L Distributed Computing 4 credits
System software and distributed applications. Modern distributed operating systems, client/server and other models and security issues. Prerequisites: CSC 212/L and CSC 253/L. Fall 2013

CSC 351/L Comparative Programming Languages 4 credits
Systematic study of programming languages and their implementations. Programming in logical and functional programming languages is included. Prerequisites: CSC 212/L. Fall 2014

CSC 360/L Intelligent Systems 4 credits
An introduction to intelligent systems including logic and rule-based systems, neural networks, Bayesian networks, and applications of AI. Prerequisites: CSC 212/L. Spring 2015

CSC 380/L Web Development 4 credits
Web 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/L and junior/senior standing. Fall 2014

CSC 391-491 Computer Science Seminar 1 credit
Topic-focused exploration involving students and faculty. Includes applications of information literacy techniques to the major and student presentations. Fall and Spring

CSC 395/L Software Engineering 4 credits
The application of engineering principles to the design, production, use and maintenance of software is studied through readings and a team project. Prerequisites: CSC 213/L. Core: Oral Communication. Spring 2015

CSC 400 Special Topics in Computing 4 credits
Current topics of interest to faculty and students. Possible topics: cryptography, advanced scripting languages, networking, etc. Prerequisites: Permission of Instructor.

CSC 497 Internship 1-3 credits
Special projects for local institutions/businesses. Must be related to a specific focused task and involve a significant learning component. Credit is not given simply for a part-time job. Approved project proposal and results documentation required. Does not count as a CSC elective. Prerequisite: Permission of chair.

CSC 499 Independent Study 4 credits
Prerequisite: Permission of chair.
**Director:** Hamilton E. Cochrane, PhD  
**Associate 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 must be taken at Canisius by all students committing to the program. Transfer Creative Writing credit may be used as a Creative Writing Elective. ENG 294 (or permission of the instructor) is a prerequisite for ENG 391, ENG 392, ENG 393 and ENG 490. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to [http://www.canisius.edu/creative-writing/index.dot](http://www.canisius.edu/creative-writing/index.dot)

**Learning Goals and Objectives**  
For learning goals and objectives please go to [http://www.canisius.edu/creative-writing/learning-goals-objectives/](http://www.canisius.edu/creative-writing/learning-goals-objectives/)

**Qualifications**  
Students must maintain a 3.0 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 Curriculum**  
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at: [http://www.canisius.edu/academics/core/](http://www.canisius.edu/academics/core/)

**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>ENG 294</td>
<td>Introduction to Creative Writing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 299</td>
<td>Introduction to English Studies</td>
<td>3</td>
</tr>
<tr>
<td>Contemporary literature: one course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>British literature: one course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>American literature: one course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 490</td>
<td>Creative Writing major capstone seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

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>Writing Young Adult Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENG 388</td>
<td>Literary Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 391</td>
<td>Advanced Creative Writing: Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENG 392</td>
<td>Advanced Creative Writing: Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENG 393</td>
<td>Advanced Creative Writing: Memoir</td>
<td>3</td>
</tr>
<tr>
<td>ENG 411</td>
<td>Playwriting</td>
<td>3</td>
</tr>
<tr>
<td>ENG 498</td>
<td>Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

**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></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>ENG 294 (3 credits)</td>
<td>Creative Writing elective</td>
</tr>
<tr>
<td></td>
<td>ENG 299 (3 credits)</td>
<td>American Literature requirement</td>
</tr>
<tr>
<td>Junior</td>
<td>Creative Writing elective</td>
<td>Creative Writing elective</td>
</tr>
<tr>
<td></td>
<td>British Literature requirement</td>
<td>Contemporary Literature requirement</td>
</tr>
<tr>
<td>Senior</td>
<td>ENG 490 (3 credits)</td>
<td>Literature elective</td>
</tr>
<tr>
<td></td>
<td>Literature elective</td>
<td>Literature elective</td>
</tr>
</tbody>
</table>

Minors
In addition to the major, a creative writing minor is offered: a five-course sequence that includes many of the basic requirements for creative writing majors:

<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></td>
<td>Three of the following creative writing courses:</td>
<td></td>
</tr>
<tr>
<td>ENG 342</td>
<td>Writing Young Adult Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENG 388</td>
<td>Literary Publishing</td>
<td>3</td>
</tr>
<tr>
<td>ENG 391</td>
<td>Advanced Creative Writing: Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENG 392</td>
<td>Advanced Creative Writing: Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENG 393</td>
<td>Advanced Creative Writing: Memoir</td>
<td>3</td>
</tr>
<tr>
<td>ENG 411</td>
<td>Playwriting</td>
<td>3</td>
</tr>
<tr>
<td>ENG 498</td>
<td>Internship</td>
<td>3</td>
</tr>
<tr>
<td>ENG 490</td>
<td>Creative Writing major capstone seminar</td>
<td>3</td>
</tr>
</tbody>
</table>

Creative Writing Courses: 2013 - 2015

ENG 294 Introduction to Creative Writing  3 credits
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  3 credits
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  3 credits
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.

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.
ENG 391 Advanced Creative Writing: Fiction 3 credits
Workshop for experienced writers in fiction. Prerequisite: ENG 294 or permission of instructor.

ENG 392 Advanced Creative Writing: Poetry 3 credits
Workshop for experienced writers in poetry. Prerequisite: ENG 294 or permission of instructor.

ENG 393 Advanced Creative Writing: Memoir 3 credits
Workshop for experienced writers in memoir. Prerequisite: ENG 294 or permission of instructor.

ENG 411 Playwriting 3 credits
The playwriting process. Brief review of dramatic technique and theory, followed by working through the process from germinal idea to finished playscript.

ENG 490 Creative Writing Senior Capstone 3 credits
Focus on preparation of a portfolio of polished work, creation of an artistic statement, submission and public presentation of professional work, and the practice of reading as a writer.
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, filmmaking and interactive game design. Students choose to specialize in (1) web and graphic design, (2) film and video 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 go to http://www.canisius.edu/dma/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/dma/learning-goals-objectives/

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.

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

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 create websites, films, video games, animations and advertisements through the creative use of an array of digital tools. The courses range from those in graphic design and web development to 3D modeling, character animation, game design and filmmaking, culminating in a major senior 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 (suggested below) 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</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>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>Advertising 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>
</tr>
</tbody>
</table>

**3D Animation/Game Design**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMA 346</td>
<td>Video Games: History and Technique</td>
<td>3</td>
</tr>
<tr>
<td>DMA 347</td>
<td>Electronic Game Design</td>
<td>3</td>
</tr>
<tr>
<td>DMA 351</td>
<td>3D Modeling, Texturing and Lighting</td>
<td>3</td>
</tr>
<tr>
<td>DMA 352</td>
<td>3D Character Animation</td>
<td>3</td>
</tr>
<tr>
<td>DMA 353</td>
<td>3D Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>DMA 354</td>
<td>3D Graphics for Electronic Games</td>
<td>3</td>
</tr>
<tr>
<td>DMA 370</td>
<td>Designing for Mobile Devices</td>
<td>3</td>
</tr>
<tr>
<td>DMA 371</td>
<td>Game Design for Mobile Devices</td>
<td>3</td>
</tr>
</tbody>
</table>

**Digital Filmmaking**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>DMA 309</td>
<td>Digital Music Technology</td>
<td>3</td>
</tr>
<tr>
<td>DMA 310</td>
<td>Digital Audio/Music Production</td>
<td>3</td>
</tr>
<tr>
<td>DMA 316</td>
<td>Intro to Special Effects</td>
<td>3</td>
</tr>
<tr>
<td>DMA 317</td>
<td>Intro to Motion Graphics</td>
<td>3</td>
</tr>
<tr>
<td>DMA 385</td>
<td>Intro to Digital Filmmaking</td>
<td>3</td>
</tr>
<tr>
<td>DMA 399</td>
<td>Social Documentary</td>
<td>3</td>
</tr>
</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 credits)</td>
<td>DMA 206 (3 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>DMA 202 (3 credits)</td>
<td>DMA 205 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>DMA 207 (3 credits)</td>
<td>DMA Elective</td>
</tr>
<tr>
<td>Junior</td>
<td>DMA 203 (3 credits)</td>
<td>DMA 204 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>DMA Elective</td>
<td>DMA Elective</td>
</tr>
<tr>
<td>Senior</td>
<td>DMA Elective</td>
<td>DMA 408 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>DMA Elective</td>
<td>DMA 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 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 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: 2013 – 2015

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 3 credits
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 3 credits
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 3 credits
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  3 credits
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  3 credits
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  3 credits
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  3 credits
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  3 credits
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  3 credits
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  3 credits
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  3 credits
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  3 credits
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  3 credits
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  3 credits
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  3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
Focuses on critical topics in layout, folding, binding and
printing, as well as critical/creative issues in magazine,
publications and high-end corporate design. Prerequisites:
DMA 203 Digital Design Concepts and DMA 205 Digital
Graphics.

DMA 370 Designing for Mobile Devices 3 credits
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 371 Game Design for Mobile Devices 3 credits

DMA 372 Game Design for Mobile Devices 3 credits

DMA 384 Digital Typography 3 credits
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 3 credits
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 3 credits
Advanced course demanding innovative, intuitive,
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 3 credits
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.

DMA 408 Capstone 3 credits
Students will develop a portfolio helpful for an entry-level
position in digital media. A professional-level project will
be required of all majors to demonstrate specific strengths
in visual communications, web-based research, interactive
CDs, DVDs, web site design, traditional print materials and
the like. Service learning option. Prerequisites: DMA 201-
207 or permission of the instructor.

DMA 442 Advanced Web Design 3 credits
Concentrates on effective website design for dynamic sites
and mobile devices, practical web server programming
skills, and advanced Adobe Flash for web development.
DMA 488 Internship I Seminar 3-12 credits
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 DMA 498, 12-credit limit for DMA 488/498 combined. Prerequisite: Open to junior and senior majors with G.P.A. of at least 2.50, Digital Media Arts average of 2.70 and approved by department faculty. Applications on Communication Studies Department website. Fall, Spring

DMA 498 Internship II Seminar 3-9 credits
Sequel to DMA 488 for students taking a second internship. Each student is limited to a combined total of 12 credit hours for DMA 488 and 498. Prerequisite: Same as for DMA 488. Fall, Spring

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</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 491, 492, 493-</td>
<td>Video Institute I, II, III</td>
<td>3</td>
</tr>
<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>2 D Design</td>
<td>3</td>
</tr>
<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>
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<tr>
<td>FAS 140</td>
<td>Intro 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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<td>FAS 142</td>
<td>Travel Photography</td>
<td>3</td>
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<td>FAS 150</td>
<td>Color</td>
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<tr>
<td>FAS 170</td>
<td>Painting I</td>
<td>3</td>
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<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>
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</tbody>
</table>
DUAL DEGREES – WEHLE SCHOOL OF BUSINESS
B.A./B.S. AND M.B.A.

Laura McEwen, Assistant Dean of
Wehle School of Business
Director, Wehle School of Business MBA Program

This program enables qualified students in most majors to earn an undergraduate degree and a Masters in Business Administration (MBA) 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. See Dean McEwen 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 Dean McEwen 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 Dean McEwen early in their academic careers to ensure timely completion of required courses.

For further information, students should contact Laura McEwen, Assistant Dean of the Wehle School of Business and Director of the MBA Program.
Chair: Mark P. Zaporowski, PhD

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/economics-finance/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/economics-finance/learning-goals-objectives/

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

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>MAT 105 and MAT 106 or MAT 115 or MAT 111</td>
<td>Finite Mathematics, Calculus for the Non-Sciences, Calculus for Business I, Calculus I</td>
<td>3, 3, 4, 4</td>
</tr>
</tbody>
</table>

(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).

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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 205</td>
<td>Intermediate Macroeconomics Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ECO 206</td>
<td>Intermediate Microeconomics Analysis</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>
</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.

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 credits)</td>
<td>ENG 101 (3 credits)</td>
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<tr>
<td></td>
<td>ECO 101 (3 credits)</td>
<td>ECO 102 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>MAT 105 (3 credits)</td>
<td>MAT 106 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>or MAT 115 (4 credits) or Free Elective if MAT 115/111</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RST 101 (3 credits)</td>
<td>PHI 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td>Sophomore</td>
<td>ECO 205 (3 credits)</td>
<td>ECO 206 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ECO 255 (3 credits)</td>
<td>ECO 256 (3 credits)</td>
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<td></td>
<td>Field of Knowledge 4</td>
<td>ECO Elective</td>
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<td></td>
<td>Free Elective</td>
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<td></td>
<td>Free Elective</td>
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<td>Free Elective</td>
<td>Free Elective</td>
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<td></td>
<td>Core Capstone</td>
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<td>Free Elective</td>
<td>Free Elective</td>
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<td>Field of Knowledge 6</td>
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<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
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<tr>
<td>Senior</td>
<td>ECO Elective</td>
<td>ECO Elective</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
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<tr>
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<td>Free Elective</td>
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<tr>
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<td>Free Elective</td>
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<tr>
<td></td>
<td>Free Elective</td>
<td>Free 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.

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.

**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 credits)
ECO 102 Principles of Microeconomics (3 credits)
ECO 255 Business Statistics I (3 credits)

**Economics electives:** four courses at the 200, 300, or 400 level one of which must be ECO 205 or ECO 206. (12 credits)
Chair: Mark P. Zaporowski, PhD

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. For learning goals and objectives please go to http://www.canisius.edu/economics-finance/learning-goals-objectives/

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

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>Common body of business knowledge:</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td>MAT 105</td>
<td>Finite Mathematics</td>
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</tr>
<tr>
<td>and</td>
<td>MAT 106</td>
<td>Calculus for the Non-Sciences</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MAT 115</td>
<td>Calculus for Business I</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>MAT 111</td>
<td>Calculus I</td>
<td>4</td>
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</tbody>
</table>

(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.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
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<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
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</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>
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</tr>
<tr>
<td>ECO 255</td>
<td>Business Statistics I</td>
<td>3</td>
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<td>ECO 256</td>
<td>Business Statistics II</td>
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<td>Course Code</td>
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<td>Credits</td>
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<tr>
<td>-------------</td>
<td>-----------------------------------------</td>
<td>---------</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>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>
</tbody>
</table>

**Economics major**
ECO 205 Intermediate Microeconomic Analysis (3 credits)
ECO 206 Intermediate Macroeconomic Analysis (3 credits)

**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.

<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 credits)</td>
<td>ENG 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ECO 101 (3 credits)</td>
<td>ECO 102 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>MAT 105 (3 credits) or MAT 115 (4 credits) or MAT 111</td>
<td>MAT 106 (3 credits) or Free Elective if MAT 115/111</td>
</tr>
<tr>
<td></td>
<td>RST 101 (3 credits)</td>
<td>PHI 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Business International Requirement I (Two semesters of language or approved regional studies HIS 107-108, HIS 109-110, HIS 131-132)</td>
<td>Business International Requirement II</td>
</tr>
<tr>
<td>Sophomore</td>
<td>ACC 201 (3 credits)</td>
<td>ACC 202 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ECO 205 (3 credits)</td>
<td>ECO 206 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ECO 255 (3 credits)</td>
<td>ECO 256 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ISB 101 (3 credits)</td>
<td>FIN 201 (3 credits)</td>
</tr>
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<td></td>
<td>Field of Knowledge 4</td>
<td>MGT 101 (3 credits)</td>
</tr>
<tr>
<td>Junior</td>
<td>ECO Elective</td>
<td>ECO Elective</td>
</tr>
<tr>
<td></td>
<td>MKT 201 (3 credits)</td>
<td>MGT 325 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge 1</td>
<td>MGT 370 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge 3</td>
<td>Field of Knowledge 2 (Ethics)</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge 6</td>
<td>Core Capstone</td>
</tr>
<tr>
<td>Senior</td>
<td>ECO Elective</td>
<td>ECO Elective</td>
</tr>
<tr>
<td></td>
<td>A and S Elective</td>
<td>MGT 446 (3 credits)</td>
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<tr>
<td></td>
<td>A and S Elective</td>
<td>A and S Elective</td>
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<tr>
<td></td>
<td>Free Elective</td>
<td>A and S Elective</td>
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<tr>
<td></td>
<td>Free Elective</td>
<td>Free 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.

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.

Economics Courses: 2013-2015

ECO 101 Principles of Macroeconomics 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 Metropolitan Economic Development and GIS 3 credits
Economic development is an essential component of local policy and governing, and a perceived driver of success and vitality for cities, metropolitan areas and regions. This applied course will introduce students to basic economic development theory and commonly used economic performance measures within a Geographic Information Systems (GIS) environment. Prerequisites: ECO 101-102.
ECO 330 Money, Banking and the Economy 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
Estimation and analysis of linear and non-linear regression models using statistical inference. Topics include multicollinearity, 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 3 credits
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 3 credits
May be used for Economics elective credit. Pass/Fail only. Requires consent of department chair.

ECO 499 Independent Research 3 credits
Requires consent of department chair.
Chair: Mark P. Zaporowski, PhD

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/economics-finance/overview/finance/

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/economics-finance/learning-goals-objectives/

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

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>
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<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 115</td>
<td>Calculus for Business I</td>
<td>4</td>
</tr>
<tr>
<td>MAT 111</td>
<td>Calculus I</td>
<td>4</td>
</tr>
</tbody>
</table>

(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.)

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<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>ISB 101</td>
<td>Management Technology</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>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>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>
</tbody>
</table>

Finance major:

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>FIN 311</td>
<td>Corporate Finance</td>
<td>3</td>
</tr>
<tr>
<td>FIN 312</td>
<td>Investments</td>
<td>3</td>
</tr>
<tr>
<td>FIN 414</td>
<td>Portfolio Management</td>
<td>3</td>
</tr>
</tbody>
</table>
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.

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 Financial Modeling and/or FIN 457 Quantitative Financial Analysis 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)

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 credits)</td>
<td>ENG 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ECO 101 (3 credits)</td>
<td>ECO 102 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>MAT 105 (3 credits) or MAT 115 (4 credits) or MAT 111</td>
<td>MAT 106 (3 credits) or Free Elective if MAT 115/111</td>
</tr>
<tr>
<td></td>
<td>RST 101 (3 credits)</td>
<td>PHI 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ISB 101 (3 credits)</td>
<td>MGT 101 (3 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>ECO 255 (3 credits)</td>
<td>ECO 256 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ACC 201 (3 credits)</td>
<td>FIN 201 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>MKT 201 (3 credits)</td>
<td>ACC 202 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge 4</td>
<td>FIN 201 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Business International Requirement I (Two semesters of language or approved regional studies HIS 107-108, HIS 109-110, HIS 131-132)</td>
<td>Business International Requirement II</td>
</tr>
<tr>
<td>Junior</td>
<td>FIN 311 (3 credits)</td>
<td>FIN 414 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>FIN 312 (3 credits)</td>
<td>FIN Elective</td>
</tr>
<tr>
<td></td>
<td>MGT 325 (3 credits)</td>
<td>Field of Knowledge 1</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge 2 (Ethics)</td>
<td>A and S Elective</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge 6</td>
<td>Core Capstone</td>
</tr>
<tr>
<td>Senior</td>
<td>FIN Elective</td>
<td>FIN Elective</td>
</tr>
<tr>
<td></td>
<td>FIN Elective</td>
<td>MGT 446 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>MGT 370 (3 credits)</td>
<td>A and S Elective</td>
</tr>
<tr>
<td></td>
<td>A and S Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td></td>
<td>A and S Elective</td>
<td>Free 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. 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.

Notes: A strong accounting background is desired by many corporations seeking job candidates with degrees in finance. For those who desire a career in corporate finance, 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.

Finance Courses: 2013-2015

FIN 201 Introduction to Finance 3 credits
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 3 credits
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 3 credits
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 3 credits
See ECO 330 for course description.

ECO 411 State and Local Finance 3 credits
See ECO 411 for course description.

FIN 412 Equity Analysis 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 Financial Modeling 3 credits
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 457 Quantitative Financial Analysis 3 credits
Introduction to R, an open source statistical and computational software package that is widely used in Finance. Applications include ratio analysis, portfolio theory, CAPM, the Fama-French three factor model, basic option pricing, value at risk and Monte Carlo Simulation using publicly available financial data. Prerequisites: ECO 256, FIN 311.

FIN 460 International Finance 3 credits
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 3 credits
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 6 credits
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 or ECO 330, FIN 480. NOTE: GGF students are selected during an application process during the student’s junior year.

FIN 497 Internship 3 credits
May be used for Finance elective credit. Pass/Fail only. Requires consent of department chair.

FIN 499 Independent Research 3 credits
Requires consent of department chair.
Chair: Julie Henry, PhD

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.

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. Please go to http://www.canisius.edu/teacher-ed/early-childhood/learning-goals/

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/teacher-ed/early-childhood/learning-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.

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.

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<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>EDE 122</td>
<td>Technology in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDY 208</td>
<td>Infant/Toddler Care &amp; Education</td>
<td>3</td>
</tr>
<tr>
<td>EDY 209</td>
<td>Developmentally Appropriate Practices in EC Classrooms: Playing to Learn</td>
<td>3</td>
</tr>
<tr>
<td>ECCH 221</td>
<td>Literacy I</td>
<td>3</td>
</tr>
<tr>
<td>ECCH 222</td>
<td>Literacy II</td>
<td>3</td>
</tr>
<tr>
<td>EDU 250</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDY 306</td>
<td>Music, Movement, and the Arts in EC Classrooms</td>
<td>3</td>
</tr>
<tr>
<td>EDY 310</td>
<td>Teaching Math/Science in EC Classrooms</td>
<td>3</td>
</tr>
<tr>
<td>SPE 341</td>
<td>Inclusive Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDE 390</td>
<td>Cognition, Learning, and Assessment Birth-Childhood</td>
<td>3</td>
</tr>
<tr>
<td>ECCH 412</td>
<td>Managing the EC and Elementary Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDY 433</td>
<td>Seminar in Teaching and Assessment Birth-Childhood</td>
<td>3</td>
</tr>
<tr>
<td>EDY 493</td>
<td>Student Teaching BC</td>
<td>3</td>
</tr>
<tr>
<td>SPE 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>
</tbody>
</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/teacher-ed/concentrations/index.dot](http://www.canisius.edu/teacher-ed/concentrations/index.dot)

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**Chair: Julie Henry, PhD**

**Introduction**
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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.

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 please go to [http://www.canisius.edu/teacher-ed/childhood-ed/index.dot](http://www.canisius.edu/teacher-ed/childhood-ed/index.dot)

**Learning Goals and Objectives**

**Qualifications**
Students must meet the requirements at all transition points in order to graduate with an education degree and be recommended for teacher certification.

**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.

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<td>Science in the Schools</td>
<td>3</td>
</tr>
<tr>
<td>EDE 317</td>
<td>Teaching Math in Elementary Schools</td>
<td>3</td>
</tr>
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<td>EDE 331</td>
<td>Teaching Social Studies in Elementary Schools</td>
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<td>ECCH 493</td>
<td>Student Teaching</td>
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<td>Child Abuse Seminar</td>
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<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 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/teacher-ed/concentrations/index.dot](http://www.canisius.edu/teacher-ed/concentrations/index.dot)

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Chair: Julie Henry, PhD

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.

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. Please go to http://www.canisius.edu/teacher-ed/dual-certification/

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/teacher-ed/childhood-ed/learning-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.

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 upper class mentors as well to discuss coursework and co-curricular experiences.

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

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>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>EDE 122</td>
<td>Technology in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDY 208</td>
<td>Infant/Toddler Care and Education</td>
<td>3</td>
</tr>
<tr>
<td>EDY 209</td>
<td>Developmentally Appropriate Practices in EC Classrooms: Playing to Learn</td>
<td>3</td>
</tr>
<tr>
<td>ECCH 221</td>
<td>Literacy I</td>
<td>3</td>
</tr>
<tr>
<td>ECCH 222</td>
<td>Literacy II</td>
<td>3</td>
</tr>
<tr>
<td>EDU 250</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>EDY 306</td>
<td>Music, Movement, and the Arts in EC Classrooms</td>
<td>3</td>
</tr>
<tr>
<td>EDE 311</td>
<td>Science in the Schools</td>
<td>3</td>
</tr>
<tr>
<td>EDE 317</td>
<td>Teaching Math in Elementary Schools</td>
<td>3</td>
</tr>
<tr>
<td>EDE 331</td>
<td>Teaching Social Studies in Elementary Schools</td>
<td>3</td>
</tr>
<tr>
<td>SPE 341</td>
<td>Inclusive Strategies</td>
<td>3</td>
</tr>
<tr>
<td>EDE 390</td>
<td>Cognition, Learning, and Assessment Birth-Childhood</td>
<td>3</td>
</tr>
<tr>
<td>ECCH 412</td>
<td>Managing the EC and Elementary Classroom</td>
<td>3</td>
</tr>
<tr>
<td>EDE 432</td>
<td>Seminar in Teaching and Assessment Elementary</td>
<td>3</td>
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<tr>
<td>ECCH 493</td>
<td>Student Teaching</td>
<td>12</td>
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<tr>
<td>ECCH 494</td>
<td>Capstone Seminar for Teacher Candidates</td>
<td>3</td>
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<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>
</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
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 [http://www.canisius.edu/teacher-ed/concentrations/index.dot](http://www.canisius.edu/teacher-ed/concentrations/index.dot)

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, PhD

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.

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. Please go to http://www.canisius.edu/teacher-ed/special-ed/

Learning Goals and Objectives
For Learning Goals and Objectives please go to http://www.canisius.edu/teacher-ed/special-ed/learning-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.

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 supplemen tal academic experiences. Freshmen meet with upper class mentors as well to discuss coursework and co-curricular experiences.

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<td>Literacy II</td>
<td>3</td>
</tr>
<tr>
<td>SPE 291</td>
<td>Nature and Needs of EC Students with Learning Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>SPE 292</td>
<td>Remedial Strategies for Teaching in the EC Content Areas</td>
<td>3</td>
</tr>
<tr>
<td>EDU 250</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>SPE 311</td>
<td>Nature/Needs of EC Students with Developmental Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>SPE 312</td>
<td>Multidisciplinary Assessment and Teaching: EC</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/Needs of EC Students with Behavior Disorders</td>
<td>3</td>
</tr>
<tr>
<td>SPE 335</td>
<td>Classroom Management in the Childhood Classrooms</td>
<td>3</td>
</tr>
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<td>SPE 432</td>
<td>Seminar in Teaching and Assessment</td>
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## 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 [here](http://www.canisius.edu/teacher-ed/concentrations/index.dot).

## 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.

## Early Childhood, Childhood, and Special Education Courses: 2013-2015

### ECCH 221 Literacy I 3 credits

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 3 credits

Examines effective methods for assessing children’s literacy skills and for developing targeted instruction that reinforces, remediates 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 30 hours of field experience in grades PreK-6.
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.

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-appropriateness 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.

EDE 311 Teaching Science in Elementary 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 20 hours of field experience in Grades 1-6.

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.

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.

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.

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.

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.

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.

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.
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SPE1 494 Capstone Seminar for Teacher Candidates 3 credits
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.

EDE 493 Student Teaching - CH 12 credits
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.

ECCH 493 Student Teaching - EC/CH 12 credits
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.

EDU 122 Technology in Education 3 credits
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 3 credits
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.

EDU 495 Child Abuse Workshop 0 credits
Mandatory training by New York State Education Department for teacher certification. Held during the student teaching seminar.

EDU 496 Prevention of School Violence Workshop 0 credits
Mandatory training by New York State Education Department for teacher certification. Held during the student teaching seminar.

EDY 208 Infant/Toddler Care and Education 3 credits
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.

EDY 209 Developmentally Appropriate Curriculum in Early Childhood Classrooms 3 credits
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.
EDY 306 Music, Movement and the Arts in Early Childhood Classrooms 3 credits
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.

EDY 310 Teaching Math/Science in Early Childhood Classrooms 3 credits
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.

EMC 352 Human Growth and Social Development: Middle Childhood 3 credits
Major concepts, principles, theories and research related to the intellectual, emotional, physical, social and moral development of young adolescents.

EMC 391 Cognition, Learning, Assessment and Diagnostic Teaching: Middle Childhood 3 credits
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.

GEO 325 Introduction to Physical Geography 3 credits
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.

SPE 100 Introduction to Special Education 3 credits
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.

SPE 291 Nature and Needs of CH Students with Learning Disabilities 3 credits
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.

SPE 292 Remedial Strategies in the CH Content Areas 3 credits
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.

SPE 311 Nature and Needs of CH Students with Developmental Disabilities 3 credits

SPE 312 Multidisciplinary Assessment and CH Teaching 3 credits
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 312.
SPE 330 Nature and Needs of CH Students with Behavioral Disorders 3 credits
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.

SPE 335 Classroom Management in Childhood Classrooms 3 credits
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.

SPE 341 Inclusive Strategies 3 credits
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.

SPE 432 Seminar in Teaching and Assessment 3 credits
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.

SPE1 493 Supervised Student Teaching 12 credits
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 reader 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.
Chair: Mark Hodin, PhD

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 senior seminar helps students synthesize skills and knowledge from their coursework and reflect upon the meaning and value of their English major.

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.

For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please see our department website at http://www.canisius.edu/english/index.dot

Learning Goals and Objectives
For Learning Goals and Objectives please go to http://www.canisius.edu/english/learning-goals-objectives/

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 Curriculum
All students must complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/.

Free Electives
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<tr>
<td>ENG 299</td>
<td>Introduction to English Studies</td>
<td>3</td>
</tr>
<tr>
<td>ENG 300</td>
<td>level Shakespeare: (one)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 300</td>
<td>level British Literature before 1800: (one)</td>
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<tr>
<td>ENG 300</td>
<td>level American Literature before 1900: (one)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 200</td>
<td>level or ENG 300 level Writing/Rhetoric: (one)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>English major senior seminar</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>200-level English electives: 2 courses</td>
<td>6</td>
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<tr>
<td></td>
<td>English Major electives: 4 courses (3/4 at 300-level)</td>
<td>12</td>
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</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, 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
English 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.
English Honors 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. You can read more about the Honors program at www.canisius.edu/english/program/honors/

Recommended Semester Schedule for Major Course Requirements

<table>
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<tr>
<th>Year</th>
<th>Fall Semester</th>
<th>Spring Semester</th>
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<tbody>
<tr>
<td>Freshman</td>
<td>200-level English elective</td>
<td>ENG 299</td>
</tr>
<tr>
<td></td>
<td>200-level English elective</td>
<td>Writing/Rhetoric or Major elective</td>
</tr>
<tr>
<td>Junior</td>
<td>Shakespeare</td>
<td>Pre-1800 British Literature</td>
</tr>
<tr>
<td></td>
<td>Major Elective</td>
<td>Writing/Rhetoric or Major elective</td>
</tr>
<tr>
<td>Senior</td>
<td>Major Elective</td>
<td>English Major Senior Seminar</td>
</tr>
<tr>
<td></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 Level</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>English 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>English 300/400 level</td>
<td>British Literature course (one)</td>
<td>3</td>
</tr>
<tr>
<td>English 300/400 level</td>
<td>American Literature course (one)</td>
<td>3</td>
</tr>
<tr>
<td>English 300 level</td>
<td>Shakespeare course (one)</td>
<td>3</td>
</tr>
<tr>
<td>English 200/300/400 level</td>
<td>Writing/Rhetoric (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, Context, and Subtext (offered every other spring)</td>
<td>3</td>
</tr>
<tr>
<td>ENG 498</td>
<td>Internship (one of the student's choice, with advice of a faculty supervisor)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Electives:** Chose 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>Advance 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 see [www.canisius.edu/creativewriting/](http://www.canisius.edu/creativewriting/)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses:</td>
<td></td>
<td></td>
</tr>
<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>
<tr>
<td><strong>Required: Three of the following Creative Writing Courses:</strong></td>
<td></td>
<td></td>
</tr>
<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>

### Theatre Arts Minor: 5 Courses (For both majors and non-majors. A five-course sequence that includes course work in acting and production as well as in dramatic literature and playwriting.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Course</td>
<td>Title</td>
<td>Credits</td>
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<tr>
<td>--------</td>
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</tr>
<tr>
<td>ENG 147 or ENG 148</td>
<td>Acting I</td>
<td>3</td>
</tr>
<tr>
<td>ENG 202</td>
<td>Drama</td>
<td>3</td>
</tr>
<tr>
<td>ENG 346 or ENG 350</td>
<td>Introduction to Theatre</td>
<td>3</td>
</tr>
<tr>
<td>ENG 411 or ENG 426</td>
<td>Playwriting</td>
<td>3</td>
</tr>
<tr>
<td>ENG 498</td>
<td>Internship</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 347 or ENG 350</td>
<td>Acting II</td>
<td>3</td>
</tr>
<tr>
<td>ENG 201 Poetry (Field 3, Oral Communication)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 202 Drama (Field 3, Advanced Writing Intensive)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 205 Varieties of the Essay (Field 3, Advanced Writing Intensive)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 211 Science Fiction (Field 3, Advanced Writing Intensive)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 212 Classic English and American Novel (Field 3)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 213 Word and Image (Field 3)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 219 Literature and Psychology (Field 3, Advanced Writing Intensive)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 220 Contemporary Catholic Fiction (Field 3)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ENG 221 Hallowed Houses in American Literature (Field 3, Diversity, Advanced Writing Intensive)</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**English Courses: 2013 – 2015**

**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, Oral Communication)** 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, Oral Communication)** 3 credits
Continuation of Acting I.

**ENG 201 Poetry (Field 3, Advanced Writing Intensive)** 3 credits
Introductory survey of poetry for majors and non-majors.

**ENG 202 Drama (Field 3, Advanced Writing Intensive)** 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 211 Science Fiction (Field 3, Advanced Writing Intensive)** 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 219 Literature and Psychology (Field 3, Advanced Writing Intensive)** 3 credits
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 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 credits
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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Field</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 222</td>
<td>Vampires in Literature and Culture (Field 3, Advanced Writing Intensive)</td>
<td></td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>ENG 223</td>
<td>Images of Women in Literature and Film (Field 3, Advanced Writing Intensive)</td>
<td></td>
<td>3</td>
<td>Representations of women as major characters in literature and film. Open to majors and non-majors.</td>
</tr>
<tr>
<td>ENG 224</td>
<td>The Journey in World Literature (Field 3, Global Awareness, Advanced Writing Intensive)</td>
<td></td>
<td>3</td>
<td>Explores the concept of the journey in international literature from a number of cultural and intellectual perspectives. Open to majors and non-majors.</td>
</tr>
<tr>
<td>ENG 225</td>
<td>The Journey in American Literature (Field 3, Diversity, Advanced Writing Intensive)</td>
<td></td>
<td>3</td>
<td>Explores the concept of the journey in American Literature. Open to majors and non-majors.</td>
</tr>
<tr>
<td>ENG 230</td>
<td>The Bible as Literature (Field 3, Advanced Writing Intensive)</td>
<td></td>
<td>3</td>
<td>A study of the Bible as literary text and cultural source, integrating film, painting and sculpture as representations of biblical images for interpretation.</td>
</tr>
<tr>
<td>ENG 246</td>
<td>Short Fiction (Field 3)</td>
<td></td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>ENG 285</td>
<td>Representations of Animals in Film and Literature (Field 3, Advanced Writing Intensive)</td>
<td></td>
<td>3</td>
<td>This advanced writing-intensive course enables students to explore and evaluate representations of non-human animals, as well as how those 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.</td>
</tr>
<tr>
<td>ENG 294</td>
<td>Introduction to Creative Writing (Field 3, Advanced Writing Intensive)</td>
<td></td>
<td>3</td>
<td>Workshop in the fundamentals of poetry and fiction writing, focusing on the close study and discussion of both student manuscripts and professional texts.</td>
</tr>
<tr>
<td>ENG 299</td>
<td>Introduction to English Studies</td>
<td></td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>ENG 303</td>
<td>Medieval Literature</td>
<td></td>
<td>3</td>
<td>A survey of the major voices of medieval British literature centering on Chaucer.</td>
</tr>
<tr>
<td>ENG 305</td>
<td>Seventeenth Century Literature</td>
<td></td>
<td>3</td>
<td>A survey of the poetry and prose of major British authors from the Renaissance to the Restoration.</td>
</tr>
<tr>
<td>ENG 306</td>
<td>Eighteenth Century Literature</td>
<td></td>
<td>3</td>
<td>A survey of the poetry and prose of major British authors in the &quot;long&quot; eighteenth century.</td>
</tr>
<tr>
<td>ENG 307</td>
<td>English Gothic Novel</td>
<td></td>
<td>3</td>
<td>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.</td>
</tr>
<tr>
<td>ENG 308</td>
<td>Nineteenth Century British Literature</td>
<td></td>
<td>3</td>
<td>A survey of the major works and authors of the Romantic and Victorian periods.</td>
</tr>
<tr>
<td>ENG 309</td>
<td>Modern and Contemporary British Literature</td>
<td></td>
<td>3</td>
<td>A survey of representative figures and genres in British literature of the twentieth-century and beyond.</td>
</tr>
<tr>
<td>ENG 311</td>
<td>Women Writers</td>
<td>WST</td>
<td>3</td>
<td>Works by women writers from all periods and backgrounds.</td>
</tr>
</tbody>
</table>
ENG 312 American Women Poets: Reading and Writing (Field 3) 3 credits
Practice in reading and writing poetry, as well as critical interpretation. Emphasis on women poets from 1950s to present. (WST)

ENG 314 Chaucer 3 credits
Studies the major works, including The Canterbury Tales.

ENG 315 American Literature I (Diversity) 3 credits
Studies the formation of a national literature from origins to 1900 through a diversity of American writers.

ENG 316 The American Renaissance (Diversity) 3 credits
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 credits
A study of uniquely American heroic types, including the Alger hero, the western hero and the picaresque hero. Representative texts studied in detail, in historical and cultural context.

ENG 318 Modern American Novel 3 credits
A study of representative modern and contemporary American novels.

ENG 319 Special Topics in American Literature 3 credits
The study of a particular theme, mode or period, such as “Captivity Narratives,” “The Rise of the American Novel,” and “The Jazz Age.” Topics vary semester to semester.

ENG 321 Child and Adolescent Hero in American Literature 3 credits
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 credits
Introductory survey for majors. Plays drawn from the categories of comedy, tragedy and history.

ENG 323 Shakespeare II 3 credits
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 credits
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 credits
A survey of British women writers in different genres and historical periods.

ENG 326 The American Renaissance (Diversity) 3 credits
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 331 Studies in Irish Literature 3 credits
An historical survey focused mainly on nineteenth century Irish literature. An aim of the course is to define Irish literature and identify its distinguishing features.

ENG 333 James Joyce's Ulysses 3 credits
Semester-long seminar in the study of the novel.

ENG 334 Writing Young Adult Fiction 3 credits
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 335 English Novel I 3 credits
Studies a range of seventeenth- and eighteenth-century novels and their contexts, including both experimental works and traditional domestic tales.

ENG 336 English Novel II 3 credits
Major British novels from the nineteenth and twentieth centuries.
ENG 350 The Theater Experience 3 credits
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 365 Core Capstone 3 credits
Themed courses that integrate core curriculum attributes and skills. For majors and non-majors. Topics vary by semester and include "Culture and Conflict: Re-Interpreting World War I," "Memoir: Individual and Culture," and "Post-Colonial Literatures."

ENG 368 Native American Literature (Field 3, Diversity) 3 credits
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 credits
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 371 Special Topics in Drama 3 credits
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 credits
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 credits
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 credits
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 credits
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 credits
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) 3 credits
The city as the focus for literary representation in the American tradition.

ENG 381 Postcolonial Literature (Global Awareness) 3 credits
Post World-War II literature from areas of the globe that have recently emerged from European colonization; may include literature and film from Africa, the Middle East, South Asia, the Caribbean, Ireland.

ENG 382 African American Literature (Field 3, Diversity) 3 credits
A survey of major writers and historical trends in African American literature from the time of slavery to the present.

ENG 385 Persuasive Writing (Advanced Writing Intensive) 3 credits
Analysis and construction of arguments. Readings on issues in law, politics and education.

ENG 388 Literary Publishing (Advanced Writing Intensive) 3 credits
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) 3 credits
Practice in writing letters, memos and reports, with models and strategies offered for each form.
ENG 392 Advanced Creative Writing Poetry 3 credits
Workshop for experienced writers in poetry. Prerequisite: ENG 294 or permission of instructor.

ENG 396 English Honors Seminar 3 credits
Any student may take one or more of the seminars. Seminar topics vary each semester.

ENG 401 Texts, Contexts and Subtexts (Advanced Writing Intensive) 3 credits
The dynamic of rhetorical situations. Observations/practical writing in rhetorical theory, writing process theory, writing and thinking, sociocognitive theory. Writing is both creative and analytical. (WST)

ENG 402 Creativity and Composition Theory (Advanced Writing Intensive) 3 credits
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) 3 credits
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) 3 credits
Further exploration of the playwriting process, with attention to a variety of dramatic modes and styles.

ENG 450 English Senior Seminar 3 credits
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 or subject. Topics vary by semester.

ENG 490 Creative Writing Senior Capstone 3 credits
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) 3 credits
Workshop for experienced writers in fiction. Prerequisite: ENG 294 or permission of instructor.

ENG 496 Advanced Creative Writing: Memoir (Advanced Creative Writing Intensive) 3 credits
Workshop for experienced writers in memoir. Prerequisite: ENG 294

ENG 497 English Honors Thesis 3 credits

ENG 498 Internship 3 credits

ENG 499 Independent Study 3 credits
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.
ENGLISH AS SECOND LANGUAGE

Director: Barbara J. Porter, PhD

Introduction
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 provide not only language instruction but social support. Students can complete up to four 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 four courses, one course each in writing, conversation, reading 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, IELTS or other language assessment tests as well as transcripts from other institutions. Particular attention is paid to previous ESL or EFL coursework or course in English at another institution. 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. For more information on the ESL program please go to http://www.canisius.edu/english-as-second-language/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/english-as-second-language/goals/

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 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.

ESL Courses: 2013-2015

ESL 111: Writing in Context I: Perspectives on Cultures and Ideas (Replaces ESL 101)
Course in the basics of writing in English. Focus on mastering the writing process as a means to creating effective written work. Some review of the basics of sentence and paragraph structure. Students will primarily work on organizing and developing short essays (1-2 pages) using rhetorical patterns including narration, description, example and comparison and contrast. Emphasis on all ESL concerns including effective word choice, vocabulary, idioms, grammar, sentence structure, etc. (Fall and Spring as needed, 3 credits)

ESL 112: Writing in Context II: Perspectives on Cultures and Ideas (Replaces ESL 102)
Intermediate course in the basics of writing in English mastering the writing process as a means to creating effective written work. Some review of the basics of sentence and paragraph structure. Students will primarily work on organizing and developing short essays (3-4
pages) including expository, analytical and argumentative essays. Includes research based essays. Emphasis on all ESL concerns including effective word choice, vocabulary, idioms, grammar, sentence structure, etc. *(Fall and Spring as needed, 3 credits)*

**FYS 101: FYS 101 for International Students** *(Replaces ESL 109 and 110)*
This course emphasizes the production of academic writing through critical analysis of texts, with topics drawn from a wide range of academic disciplines. This course is intended to be seminar style with reading and discussion appropriately challenging for international students, with the expectation that students will be able to write so as to enhance learning, find and evaluate information, practice academic integrity, negotiate the process of revision, and use correct grammar and syntax.

This course will have a significant component of the course devoted to writing instruction and developing information literacy. It is expected that in FYS 101 students will engage in revision, as well as write at least 15 pages of polished prose, and that they will engage in appropriate research activities. *(Fall and Spring as needed, 3 credits)*

**ESL 114: Readings Across the Disciplines I** *(New course)*
In this course students will practice pre-reading, scanning, summarizing, paraphrasing and synthesizing of ideas from college level texts. ESL 114 will help students to determine the author’s purpose, intended audience, tone, and context. They will also learn to recognize and understand a work’s thesis (nonfiction) or theme (literary texts) and the rhetorical and literary strategies used to support a work’s thesis and/or develop a work’s theme. Students will study readings from American newspapers and other publications in various academic areas including science, philosophy, literature, with emphasis on ethics, justice, etc. *(Fall, 3 credits)*

**ESL 115: Readings Across the Disciplines II** *(New course)*
In this course students will practice pre-reading, scanning, summarizing, paraphrasing and synthesizing of ideas from college level texts. ESL 115 will help students to determine the author’s purpose, intended audience, tone, and context. They will also learn to recognize and understand a work’s thesis (nonfiction) or theme (literary texts) and the rhetorical and literary strategies used to support a work’s thesis and/or develop a work’s theme. Students will study readings from American newspapers and other publications in various academic areas including science, philosophy, literature, with emphasis on ethics, justice, etc. *(Spring, 3 credits)*

**ESL 116: The Art of Conversation I** *(Replaces ESL 103)*
In this course students will participate in exercises ranging from role plays, dialogues to brief presentations. Students will demonstrate effective word choice, grammar and accurate communication of meaning. Students will practice listening for main ideas and supporting details, recognize developmental patterns/cues, as well as note taking. This course includes practice in asking and answering questions, understanding and responding appropriately to conversations with a partner and with multiple speakers in small groups. *(Fall, 3 credits)*

**ESL 117: The Art of Conversation II** *(Replaces ESL 104)*
In this course students will participate in exercises ranging from role plays, dialogues to brief presentations. Students will demonstrate effective word choice, grammar and accurate communication of meaning. Students will practice listening for main ideas and supporting details, recognize developmental patterns/cues, as well as note taking. This course includes practice in asking and answering questions, understanding and responding appropriately to conversations with a partner and with multiple speakers in small groups. *(Spring, 3 credits)*

**ESL 118: The Art of Oral Presentations** *(Replaces ESL modules 105, 106, 107, 108)*
Students in this course will learn to both give and understand oral presentations. Students will give formal presentations in which they will demonstrate clarity of ideas and speech in a vocabulary appropriate to the target audience. Emphasis will be on the effective use of pronunciation, stress, and intonation patterns. Presentations will integrate material from outside sources logically and focus on clearly organized and developed content, including supporting evidence. This course provides reinforcement of how to properly document research. *(Spring and Fall, 3 credits)*
Entrepreneurship

Director: Ji-Hee Kim, PhD

Introduction
For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to [http://www.canisius.edu/entrepreneurship/index.dot](http://www.canisius.edu/entrepreneurship/index.dot).

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 major 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. That 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 concept. 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 to 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 develop a set of tools and perspectives to capitalize on that potential.

The Canisius program prepares students to:
1. acquire an existing business or franchise;
2. start up a new venture;
3. manage an existing family business for growth; and/or
4. engage in entrepreneurship – the development of new products or programs – or the evaluation and pursuit of potential mergers or acquisitions within a mature corporation.

Career Opportunities
Gaining experience on their own is natural for entrepreneurship majors. Some 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.

Internships
The entrepreneurship major at Canisius College strongly emphasizes hands-on experience in addition to a high-quality curriculum.

Learning Goals and Objectives
For learning goals and objectives please go to [http://www.canisius.edu/entrepreneurship/learning-goals-objectives/](http://www.canisius.edu/entrepreneurship/learning-goals-objectives/)

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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at [http://www.canisius.edu/academics/core/](http://www.canisius.edu/academics/core/)
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 Course Requirement (21 or 22)

<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>and</td>
<td>Calculus for the Non-Science</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>MAT 111</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>MAT 115</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>MGT 446</td>
<td>Managerial Policy/Strategy</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

Entrepreneurship electives: (3 courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT 310</td>
<td>International Entrepreneurship Practicum</td>
</tr>
<tr>
<td>ENT 311</td>
<td>Entrepreneurship and Family Business</td>
</tr>
<tr>
<td>ENT 312</td>
<td>International Entrepreneurship</td>
</tr>
<tr>
<td>ENT 314</td>
<td>Social Entrepreneurship and Not-for-Profit Sector Enterprise</td>
</tr>
<tr>
<td>ENT 411</td>
<td>Entrepreneurial and Managerial Leadership Skill Development</td>
</tr>
<tr>
<td>ENT 414</td>
<td>Franchising and Entrepreneurship</td>
</tr>
<tr>
<td>ENT 496</td>
<td>Internship in Entrepreneurship</td>
</tr>
<tr>
<td>ENT 497</td>
<td>Entrepreneurial Summer Internship in Korea</td>
</tr>
<tr>
<td>ENT 499</td>
<td>Independent Study in Entrepreneurship</td>
</tr>
<tr>
<td>ABR 496</td>
<td>Contemporary Business and Culture in Korea</td>
</tr>
<tr>
<td>DMA 201</td>
<td>Introduction to Digital Media Arts</td>
</tr>
</tbody>
</table>

Restricted Electives (must be in Arts and Sciences)
4 courses

Free Electives (2 or 3 courses)
Entrepreneurship Major –
Outside-the-classroom Experiences
Students are strongly encouraged to participate in a
variety of outside-of-classroom programs during their
undergraduate careers. Some examples are:

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 entrepreneurship
venture to which entrepreneurship majors contribute.
MYLINKFACE utilizes dynamic and interactive online
multimedia to teach English to foreign students seeking
to improve their skills in conversational English. This
organization schedules convenient on-line video classes
in which Canisius College students and certified native
English-speaking teachers instruct the foreign students.

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. Partnership with the Canisius College Women’s
Business Center (WBC): Academic and other practical
experience is reinforced through a working relationship
with the Canisius College Women’s Business Center.
Entrepreneurship majors and local entrepreneurs are
regularly invited to presentations and activities sponsored
by the WBC.

Additional Course Considerations
To ensure that all prerequisites are met, it is especially
important that Entrepreneurship majors register for the
indicated entrepreneurship sections of the
following 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 (ENT Section)</td>
<td>3</td>
</tr>
<tr>
<td>Possible Entrepreneurship electives include:</td>
<td>3</td>
<td></td>
</tr>
<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 Leadership</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 Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ENT 497</td>
<td>Entrepreneurial Summer Internship in Korea</td>
<td>3</td>
</tr>
<tr>
<td>ENT 498</td>
<td>Practicum in Entrepreneurship</td>
<td>0</td>
</tr>
<tr>
<td>ENT 499</td>
<td>Independent Study in Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>MGT 307</td>
<td>US Business History</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>
<tr>
<td>MGT 380</td>
<td>International Business Seminar</td>
<td>3</td>
</tr>
<tr>
<td>MGT 434</td>
<td>Technology Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 437</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 472</td>
<td>Comparative Management Systems (International)</td>
<td>3</td>
</tr>
<tr>
<td>MKT 474</td>
<td>Doing Business in Canada</td>
<td>3</td>
</tr>
<tr>
<td>MKT 476</td>
<td>Doing Business in Mexico</td>
<td>3</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Money, Heaven and Right Living</td>
<td>3</td>
</tr>
<tr>
<td>MKT 320</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKT 390</td>
<td>New Product Development</td>
<td>3</td>
</tr>
<tr>
<td>MKT 396</td>
<td>Promotion/Advertising</td>
<td>3</td>
</tr>
<tr>
<td>DMA 201</td>
<td>Introduction to Digital Media Arts</td>
<td>3</td>
</tr>
</tbody>
</table>
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 entrepreneurship 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 credits)</td>
<td>ENT 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>MAT 105 (3 credits) or MAT 111 or MAT 115 (3 credits)</td>
<td>MAT 106 (3 credits) or Free Elect if MAT 115/111</td>
</tr>
<tr>
<td></td>
<td>RST 101</td>
<td>ECO 102 MICRO</td>
</tr>
<tr>
<td></td>
<td>ECO 101 MACRO (3 credits)</td>
<td>ENG 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>(Social Science Field of Knowledge 5)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Business International Requirement (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 credits)</td>
<td>MGT 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ACC 201 (3 credits)</td>
<td>ACC 202 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ISB 101 (3 credits)</td>
<td>PHI 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>History (3 credits) (Field of Knowledge 4)</td>
<td>Arts (3 credits) (Field of Knowledge 3)</td>
</tr>
<tr>
<td></td>
<td>ECO 255 STATS 1 (3 credits) (Field of Knowledge 7)</td>
<td>ECO 256 STATS 2 (3 credits)</td>
</tr>
<tr>
<td>Junior</td>
<td>ENT elective</td>
<td>ENT elective</td>
</tr>
<tr>
<td></td>
<td>(3 credits)</td>
<td>(3 credits)</td>
</tr>
<tr>
<td></td>
<td>FIN 201 (3 credits)</td>
<td>Free Elective</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>(3 credits)</td>
</tr>
<tr>
<td></td>
<td>MKT 201 (ENT section) (3 credits)</td>
<td>MGT 325 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Natural Science (3 credits) (Field of Knowledge 5)</td>
<td>Philosophy (3 credits) (Field of Knowledge 2 with Ethics attribute)</td>
</tr>
<tr>
<td></td>
<td>Religion (3 credits) (Field of Knowledge 1)</td>
<td>Core capstone (3 credits)</td>
</tr>
<tr>
<td>Senior</td>
<td>ENT 401 (3 credits)</td>
<td>ENT 402 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ENT Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td></td>
<td>(3 credits)</td>
<td>(3 credits)</td>
</tr>
<tr>
<td></td>
<td>MGT 370 (3 credits)</td>
<td>MGT 446 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Arts and Sciences Elective (3 credits)</td>
<td>Arts and Sciences Elective (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Arts and Sciences Elective (3 credits)</td>
<td>(3 credits)</td>
</tr>
<tr>
<td></td>
<td>Arts and Sciences Elective (3 credits)</td>
<td>Art and Sciences Elective (3 credits)</td>
</tr>
</tbody>
</table>
Dual Majors
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.

Students who wish to expand their educational backgrounds 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 advising. Some dual major combinations can be completed within the minimum 120 credit hour degree requirement, but in many 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(s).

Minors
Students who wish to expand their educational backgrounds 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: 2013 – 2015
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 credits

Core Curriculum 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 credits
Provides an understanding of the entrepreneurial process from both conceptual and applied perspectives. Topics include creativity, innovation, the characteristics of entrepreneurs, common issues encountered by entrepreneurs, entrepreneurial marketing, entrepreneurial finance, and organizational strategies for new business enterprises. Students will engage in real entrepreneurial projects. 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 credits
Focuses on the most common problems encountered by owners, managers, and entrepreneurs in organizing and operating small enterprises. Topics include creativity, and innovation; entrepreneurial strategy; pursuing new venture opportunities; the new venture business plan; creative small business marketing; innovative small business management; financial management in the entrepreneurial firms; and legal requirements. Students will obtain entrepreneurial experience through working with entrepreneurs small business enterprises. 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 credits
Capstone course required of all entrepreneurship majors at the end of the program. Students develop an original idea for a new venture and write a comprehensive business plan for that venture. An integration of 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
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 credits
Core Curriculum 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.

ENT 311 Entrepreneurship and Family Business 3 credits
Entrepreneurship and Family Business (ENT 311): Provides students with an understanding of key concepts related to and challenges faced by family businesses. Students will learn about ways to foster healthy family businesses through the use of innovative tools and via hands-on learning. The course will explore how the dynamics of a family unit can both help and hinder the success of a business organization. Issues such as mentoring, succession planning and family creeds and councils, and the special problems of family businesses and other closely-held corporations will be explored. Attention will also be devoted to family business planning, effective governance approaches in family businesses, preparing heirs for entry into and management of family firms, and tax and compensation planning. Prerequisites: MGT 101 and MKT 201 or ENT 201 and junior standing. Fall only

ENT 312 International Entrepreneurship 3 credits
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. Spring only

ENT 314 Social Entrepreneurship and Not-for-Profit Sector Enterprise 3 credits
Core Curriculum 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 credits
The purpose of this course is to enable potential entrepreneurs and managers to learn about leading. There are times when individuals are thrust into leadership positions, as entrepreneurs or managers, and have very little time to learn how to lead. Entrepreneurs and managers engage with customers, vendors, professional advisors and employees from their first day in the role. This course will be focused on the development of the skills necessary to be an effective leader. Course topics will include personal accountability, empowerment and delegation, team-building, goal setting, and negotiating. The presentation of each topic will include both a conceptual framework and active learning for skill development. This course is appropriate to any student planning to start a business or work in a managerial role. The list of topics and focus on skill development also makes the course very appropriate
for those students considering a career in human resources management. Prerequisites: MGT 101 and junior standing. 

Fall only

**ENT 414 Franchising and Entrepreneurship** 3 credits
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 credits
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 credits
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 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, and/or study abroad in Korean credits.

**ABR 496 Contemporary Business and Culture in Korea** 3 credits
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. Fall only
ENVIRONMENTAL SCIENCE

Director: Sara R. Morris, PhD
Faculty: Katie Costanzo, Robert Grebenok, Barbara Hanson, Jonathan O’Brien, Steven Szczepankiewicz

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 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.

For a more detailed description of the faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/enviro-science/index.dot

Learning Goals and Objectives
For learning goals please go to http://www.canisius.edu/enviro-science/learning-goals-objectives/

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

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).

Major course requirements

<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</td>
</tr>
</tbody>
</table>

Inferential Statistics and Computers | 4
MAT 111 or MAT 109-110 | Calculus | 4
| Calculus with Review I and II | 4-4
BIO 320 | Field Ecology | 4
BIO 305/305L | Microbiology: An Environmental Perspective and Lab | 4
BIO 360 | Environmental Health | 3
CHM 232 | Analytical Environmental Chemistry | 4
ENV 100 | Introduction to Environmental Science Seminar | 1
ENV 200 | Introductory Hydrology and Lab | 4
ENV 352 | Environmental Science Seminar II | 1
ENV 498-499 | Environmental Science Internship I and II | 3/3
GEOL 120 | Introductory Geology and Lab | 4

**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 360 | Environmental Health | 3
BIO 365 | Vertebrate Zoology and Ecology | 4
BIO 366 | Ornithology | 4
BIO 370 | Plant Morphology | 4
BIO 371 | Behavioral Ecology | 3
BIO 375 | Community Ecology | 4
CHM 301 | Classical Physical Chemistry | 4
SCI 360 | Scientific Modeling | 3

**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, 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.

**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: 2013 – 2015

ENV 100 Introduction to Environmental Science Seminar 1 credit
Introduction to the field. Career information included. Required in freshman or sophomore year. Spring 2015 only

GEOL 120 Introductory Geology 4 credits
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 2013 only

ENV 200 Introductory Hydrology 4 credits
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 2014 only

ENV 352 Environmental Science Seminar II 1 credit
Students attend scientific talks and present information relevant to their internship experiences. Career preparations also included. Offered fall 2013, and every spring thereafter

ENV 401 Independent Research 3 credits
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 498-499 Environmental Science Internship I and II 3 credits
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, PhD

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.

Environmental Studies majors can select a specialization track made up of five courses
Specialization Tracks include Environmental Justice, Environmental Conservation and Administration, Sustainable Economics, Environmental Literacy and Public Health. Students can specialize in one area, or select a combination of electives from different tracks that best meet their interests. Each student will select four electives and an internship.

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 498). Internship opportunities will range from local and regional opportunities to international opportunities through partnerships with well-established environmental organizations.

For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/enviro-studies/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/enviro-studies/learning-goals-objectives/

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

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>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>Environmental 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 310/311</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>
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</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>EVST 235</td>
<td>Environmental Policy and Green Theory</td>
<td>3</td>
</tr>
<tr>
<td>EVST 259</td>
<td>Environmental History of the United States</td>
<td>3</td>
</tr>
<tr>
<td>EVST 275</td>
<td>Global Environmental History</td>
<td></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>
</tbody>
</table>

### 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 275</td>
<td>Global Environmental History</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>

### 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>EVST 275</td>
<td>Global Environmental History</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>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>EVST 275</td>
<td>Global Environmental History</td>
<td>3</td>
</tr>
<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 498. Additionally, students are encouraged to pursue community based learning opportunities as they pertain to their interests and course selection.

**Additional Course Considerations:**

**Recommended Course Semester Schedule for Major Course Requirements:**

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>EVST 110: Science of Environmental Problems I</td>
</tr>
<tr>
<td></td>
<td>ECO 101: Principles of Macroeconomics</td>
</tr>
<tr>
<td>Sophomore</td>
<td>SOC 342/PSC 217/ANT 351: Social Research Methods</td>
</tr>
<tr>
<td></td>
<td>RST 342/PHI 244: Environmental Ethics</td>
</tr>
<tr>
<td>Junior</td>
<td>ECO 310: Introduction to Geographical Information Systems</td>
</tr>
<tr>
<td></td>
<td>Track Option Elective</td>
</tr>
<tr>
<td>Senior</td>
<td>EVST 498: Environmental Internship</td>
</tr>
</tbody>
</table>

**Spring**

<table>
<thead>
<tr>
<th></th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>EVST 111: Science of Environmental Problems II</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Sophomore</td>
<td>SOC 234: Environment and Society</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Junior</td>
<td>Track Option Elective</td>
</tr>
<tr>
<td>Senior</td>
<td>Track Option Elective</td>
</tr>
<tr>
<td></td>
<td>EVST 400: Capstone in Environmental Studies</td>
</tr>
<tr>
<td></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.
Environmental Studies Courses: 2013-2015

**EVST 110/111 Science of Environmental Problems I and II** 3 credits
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 credits
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.

**SOC 234 Environment and Society** 3 credits
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 credits
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 credits
Basic, non-statistical treatment of current techniques and methodologies which characterize political science research.

**RST 342 Theological Ethics and Environmental Justice** 3 credits
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 credits
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 credits
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 credits
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 400 Environmental Studies Capstone** 3 credits
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 498 Environmental Internship** 3 credits
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**  
3 credits
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**  
3 credits
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**  
3 credits
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**  
3 credits
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**  
3 credits
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**  
3 credits
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**  
3 credits
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**  
3 credits
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**  
3 credits
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.
EVST 259 Environmental History of the United States 3 credits
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

EVST 275 Global Environmental History 3 credits
This course examines global environmental policy in relation to structural and historical realities of environmental change. Students will focus on the origins of global environmental problems in relation to policy and understand the development of environmental problems on a macro-level analytical scale. Topics to be discussed include pre and post industrialization and environmental policy, globalization, environmental activism, climate change, and perspectives of international historical roots of policy and change.

Environmental Literacy and Public Health
BIO 116 Disease: Myth and Reality 3 credits
Exploration of causation, treatment and prevention of illness. Objective: to increase awareness and understanding of health and disease. Field 6

BIO 135 Environmental Biology 3 credits
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 3 credits
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 3 credits
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.

PSC 242 International Organizations 3 credits
International and transnational. Intergovernmental and non-governmental. Regional and global. Content areas: political, economic and humanitarian. Advanced Writing Intensive

Sustainable Economics
ENT 101 Experiential Entrepreneurship: Creativity, Innovation, Opportunity, and Idea Generation 3 credits
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.
ENT 314 Social Entrepreneurship and Not-for-Profit Sector Enterprise 3 credits
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 organization, 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. Justice

ISB 302 System Dynamics 3 credits
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 440 Global Supply Chain Management 3 credits
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. Global Awareness

MGT 479 Current Topics in Global Supply Chain Management 3 credits
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, PhD

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 politics and business. What happens in Europe matters for the United States.

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 a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/euro-studies/index.dot

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.

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/euro-studies/learning-goals-objectives/

Advisement
All students should be advised by the Program Director. 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/.

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 150 Comparative Government and Politics or Field 4 course on European history (1 course - 3 credits)

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 approved courses from any field- 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 216/217 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, fine arts 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 216/217 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 and PSC 355 (European Union) after that.

Students may participate in an annual international, intercollegiate simulation of the European Union, known as EuroSim, which is related to PSC 355. 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/euro-studies/index.dot](http://www.canisius.edu/euro-studies/index.dot). Students may also enjoy an international living experience in the Campion residence hall.

**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>FRC 215, GER 215 or SPA 215</td>
<td>FRC 217, GER 216 or SPA 217</td>
</tr>
<tr>
<td></td>
<td>PSC 150A or Field 4 Course on European History</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>Foreign Language, Literature and Culture Major Electives</td>
<td>Foreign Language, Literature and Culture Major Electives</td>
</tr>
<tr>
<td></td>
<td>History and Politics Major Elective</td>
<td>History and Politics Major Elective</td>
</tr>
<tr>
<td>Junior</td>
<td>European Studies Major Elective</td>
<td>History and Politics Major Elective</td>
</tr>
<tr>
<td>Senior</td>
<td>European Studies Major Elective</td>
<td></td>
</tr>
</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 study abroad programs in Europe, 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
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 abroad, for a second or third major, the core
curriculum 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.
Chair: Richard Falkenstein, PhD
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, and a minor in studio art. 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 areas involved.

Art History
Director: Claire Kovacs, PhD

Introduction
For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/art-history/index.dot

For Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/art-history/learning-goals-objectives/

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 program 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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>Required Courses</th>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAH 101</td>
<td>Cave Paintings, the Colosseum &amp; Cathedrals</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>FAH 102</td>
<td>Altarpieces, Academies &amp; the Avant-Garde</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Ancient and/or medieval art: one course</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renaissance and/or Baroque art: one course</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Art since 1800: one course</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Western or Non Period-Based Topic: one course</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One 300-level Art History course</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAH 450</td>
<td>Senior Seminar</td>
<td>3</td>
<td></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. In addition to the FAH courses, the following courses may be used as electives towards the art history major: COM 374, COM 375, FAS 110, FAS 120, FAS 130, FAS 150, PHI 397, RST 314. Other studio courses will be considered, upon approval of the Art History Program Director and the course instructor. Students may apply a maximum of two of these extra-departmental courses, as electives, to the art history major; one course if the student is double-majoring.
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, WNYBAC and Big Orbit Gallery.

Additional Course Considerations
All art history students are strongly 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.

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>FAH 101</td>
<td>FAH 102</td>
</tr>
<tr>
<td>Sophomore</td>
<td>Course in Renaissance and/or Baroque art</td>
<td>Course in Ancient and/or medieval art</td>
</tr>
<tr>
<td></td>
<td>Art History Elective</td>
<td>Art History Elective</td>
</tr>
<tr>
<td>Junior</td>
<td>Non-Western or Non-Period Based Art History Course*</td>
<td>Course in Art Since 1800*</td>
</tr>
<tr>
<td></td>
<td>Museum Internship or Art History Elective</td>
<td>Art History Elective</td>
</tr>
<tr>
<td>Senior</td>
<td>300 Level Art History Course*</td>
<td>Senior Seminar*</td>
</tr>
</tbody>
</table>

* - 300 Level Art History Courses and Senior Seminar are only offered in even years. Students graduating in odd years must take these courses in their junior year, and take their Non-Western or Non-Period Based Art History Course and a Course in Art Since 1800 in their senior year.

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. Dual majors are required to complete two art history electives rather than four, for a total of ten rather than twelve courses to complete the Art History major. Most dual major combinations with art history can be completed within the minimum 120 credit hour degree requirement. 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. The minor in art history requires six courses, some of which may also fulfill requirements in the core curriculum or the student’s major. Most art history minors can be easily completed within the minimum 120 credit hour degree requirement. Students must complete the appropriate minor request form.

Requirements for the Art History Minor

<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>
The following courses may also be used as electives towards the art history major:

<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>FAS 110</td>
<td>Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>FAS 120</td>
<td>Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>FAS 130</td>
<td>Three-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>FAS 150</td>
<td>Color</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, as approved by the Art History Program Director.

**Art History Courses: 2013-2015**

Courses offered on a 4-year rotation. Please see Art History Program Director for course rotation schedule.

**FAH 101 Cave Paintings, the Colosseum & Cathedrals** 3 credits
Introduction to visual and cultural analysis of major works of art from prehistory through the Middle Ages. Covers prehistoric through Gothic art. (Field 3, Global Awareness) Fall, Spring, Summer

**FAH 102 Altarpieces, Academies & the Avant-Garde** 3 credits
Introduction to visual and cultural analysis of major works of Western art from the Renaissance through the contemporary moment. (Field 3, Global Awareness) Fall, Spring, Summer

**FAH 103 Survey of Pre-Columbian and Native American Art** 3 credits
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. (Field 3, Diversity) Fall

**FAH 107 Introduction to African and Asian Art** 3 credits
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) Fall

**FAH 109 History of Architecture** 3 credits
Visual and cultural analysis of major monuments of global architecture from antiquity to the present. (Field 3, Global Awareness) Fall

**FAH 110 History of Photography** 3 credits
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) Fall

**FAH 159 Gender and Art** 3 credits
Introduction to selected 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) Fall

**FAH 210 Ancient Egyptian and Near Eastern Art** 3 credits
(Accepted for Classics major and 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** 3 credits
(Accepted for Classics major and minor credit) Visual and cultural analysis of the painting, sculpture and architecture of Greece and Rome. (Field 3, Global Awareness) Spring

**FAH 224 Medieval Art** 3 credits
Visual analysis, cultural analysis, and interpretation of major works of Early Christian, Byzantine, Islamic, Carolingian, Ottonian, Romanesque and Gothic periods. (Field 3, Global Awareness) Spring

**FAH 245 Renaissance Art** 3 credits
Visual, cultural, and iconographic analysis of painting, sculpture, architecture and art theory in Europe from the fourteenth through the sixteenth centuries. (Field 3, Global Awareness) Fall
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAH 248</td>
<td>Baroque Art</td>
<td>3</td>
<td>Visual, cultural and iconographic analysis of painting, sculpture and architecture during the 17th and 18th centuries in France, Italy, England, Spain and the Netherlands. (Field 3, Global Awareness) Fall</td>
</tr>
<tr>
<td>FAH 261</td>
<td>Monet and the Age of Impressionism</td>
<td>3</td>
<td>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) Spring</td>
</tr>
<tr>
<td>FAH 262</td>
<td>Modern Art</td>
<td>3</td>
<td>Visual and cultural analysis of major works from Western Europe and the United States, from the late 19th century through 1945. (Field 3, Global Awareness) Spring</td>
</tr>
<tr>
<td>FAH 265</td>
<td>Contemporary Art</td>
<td>3</td>
<td>Visual and cultural analysis of major works from the United States and Western Europe, from 1945 to the present. (Field 3, Global Awareness) Spring</td>
</tr>
<tr>
<td>FAH 266</td>
<td>Modern Architecture</td>
<td>3</td>
<td>Introduction to the architectural history of the modern world, focusing on major works in western architecture from the Industrial Revolution through Post Modernism. (Field 3, Global Awareness) Spring</td>
</tr>
<tr>
<td>FAH 267</td>
<td>Frank Lloyd Wright</td>
<td>3</td>
<td>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. (Field 3) Summer</td>
</tr>
<tr>
<td>FAH 271</td>
<td>Art in Buffalo</td>
<td>3</td>
<td>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. (Field 3) Summer</td>
</tr>
<tr>
<td>FAH 350</td>
<td>Topics in Art History</td>
<td>3</td>
<td>Varying topics in art. Course will run as a seminar. Major or minor status or permission of the instructor. (Intensive Writing) Fall</td>
</tr>
<tr>
<td>FAH 352</td>
<td>Museum Studies</td>
<td>3</td>
<td>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. (Intensive Writing) Fall</td>
</tr>
<tr>
<td>FAH 450</td>
<td>Senior Seminar</td>
<td>3</td>
<td>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. (Oral Communication) Spring</td>
</tr>
<tr>
<td>FAH 460</td>
<td>Museum Internship</td>
<td>3</td>
<td>Research, curatorial and administrative internship at selected Buffalo area art galleries. Junior and senior majors and minors or permission of internship director. Fall, Spring, Summer</td>
</tr>
<tr>
<td>FAH 480</td>
<td>Art, Beauty, and Terror in the 20th Century</td>
<td>3</td>
<td>Core Capstone. Spring</td>
</tr>
<tr>
<td>FAH 499</td>
<td>Independent Study in Art History</td>
<td>3</td>
<td>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.</td>
</tr>
</tbody>
</table>
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.

For a more detailed description of the Music Program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/music/index.dot

For Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/music/learning-goals-objectives/

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. The advisor will work closely with majors 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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>
<thead>
<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 255</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>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 216</td>
<td>Medieval and Renaissance Music</td>
</tr>
<tr>
<td>FAM 217</td>
<td>Music of the Baroque Period</td>
</tr>
<tr>
<td>FAM 218</td>
<td>Music of the Classical Period</td>
</tr>
<tr>
<td>FAM 219</td>
<td>19th Century Music</td>
</tr>
<tr>
<td>FAM 220</td>
<td>Art Music from 1900 to the Present</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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 181</td>
<td>Chorale</td>
<td>1</td>
</tr>
<tr>
<td>FAM 182</td>
<td>Jazz Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>FAM 184</td>
<td>Chamber Orchestra</td>
<td>1</td>
</tr>
<tr>
<td>FAM 185</td>
<td>Concert Band</td>
<td>1</td>
</tr>
</tbody>
</table>

or for zero (0) credit:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 171</td>
<td>Chorale</td>
<td>0</td>
</tr>
<tr>
<td>FAM 172</td>
<td>Jazz Ensemble</td>
<td>0</td>
</tr>
<tr>
<td>FAM 174</td>
<td>Chamber Orchestra</td>
<td>0</td>
</tr>
<tr>
<td>FAM 175</td>
<td>Concert Band</td>
<td>0</td>
</tr>
</tbody>
</table>

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
- DMA 310       Digital Audio/Music Production (see note on page 226)

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:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 112</td>
<td>The World of Opera</td>
<td>3</td>
</tr>
<tr>
<td>FAM 123</td>
<td>World Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 124</td>
<td>America’s Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 212</td>
<td>Canisius and the BPO Experience</td>
<td>3</td>
</tr>
<tr>
<td>FAM 213</td>
<td>Women in Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 214</td>
<td>Music in Film</td>
<td>4</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 Baroque Period</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>
<tr>
<td>FAM 221</td>
<td>Opera Workshop</td>
<td>3</td>
</tr>
<tr>
<td>FAM 222</td>
<td>Opera Workshop II</td>
<td>3</td>
</tr>
<tr>
<td>FAM 224</td>
<td>Afro-Centric Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 250</td>
<td>Music for Children</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></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FAM 119 (3 credits)</td>
<td>FAM 240/240L (4 credits)</td>
</tr>
<tr>
<td></td>
<td>FAM 230/230L (4 credits)</td>
<td>Music History Course</td>
</tr>
<tr>
<td></td>
<td>FAM 225 (2 credits)</td>
<td>FAM 225 (2 credits)</td>
</tr>
<tr>
<td></td>
<td>Music Ensemble</td>
<td>Music Ensemble</td>
</tr>
<tr>
<td>Sophomore</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FAM 330/330L (4 credits)</td>
<td>FAM 340/340L (4 credits)</td>
</tr>
<tr>
<td></td>
<td>FAM 210 (3 credits)</td>
<td>Music Sequence Course</td>
</tr>
<tr>
<td></td>
<td>FAM 225 (2 credits)</td>
<td>FAM 225 (2 credits)</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 credits)</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 School of Education website for requirements.

### 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 credits)
(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 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 123</td>
<td>World Musics</td>
<td>3</td>
</tr>
<tr>
<td>FAM 124</td>
<td>America's Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 212</td>
<td>Canisius and the BPO Experience</td>
<td>3</td>
</tr>
<tr>
<td>FAM 213</td>
<td>Women in Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 214</td>
<td>Music in Film</td>
<td>3</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 Baroque Period</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>
<tr>
<td>FAM 224</td>
<td>Afro-Centric Music</td>
<td>3</td>
</tr>
</tbody>
</table>

Total of six credits consisting of any combination of FAM
courses, music ensembles, music lessons, DMA 309 Music
Technology (3 credits), DMA 310 Digital Audio/Music
Performance (3 credits), HON 323 Opera (3 credits) and
HON 324 Symphony (3 credits).

Note: DMA 309 and DMA 310 are offered in alternate
years.
FINE ARTS – 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. The website also has links to video and audio clips of student ensembles and music major recitals.

For Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/music/learning-goals-objectives/

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. The advisor will work closely with majors 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 119</td>
<td>Masterpieces of Music</td>
</tr>
<tr>
<td>FAM 210</td>
<td>Keyboard Musicianship</td>
</tr>
<tr>
<td>FAM 230/230L</td>
<td>Music Theory I and Lab</td>
</tr>
<tr>
<td>FAM 240/240L</td>
<td>Music Theory II and Lab</td>
</tr>
<tr>
<td>FAM 330/330L</td>
<td>Music Theory III and Lab</td>
</tr>
<tr>
<td>FAM 340/340L</td>
<td>Music Theory IV and Lab</td>
</tr>
<tr>
<td>FAM 450</td>
<td>Senior Seminar</td>
</tr>
<tr>
<td>FAM 255</td>
<td>Music Performance: eight semesters</td>
</tr>
<tr>
<td>FAM Music History Course (choose one of the following)</td>
<td></td>
</tr>
<tr>
<td>FAM 216</td>
<td>Medieval and Renaissance Music</td>
</tr>
<tr>
<td>FAM 217</td>
<td>Music of the Baroque Period</td>
</tr>
<tr>
<td>FAM 218</td>
<td>Music of the Classical Period</td>
</tr>
<tr>
<td>FAM 219</td>
<td>19th Century Music</td>
</tr>
<tr>
<td>FAM 220</td>
<td>Art Music from 1900 to the Present</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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 181</td>
<td>Chorale</td>
<td>1</td>
</tr>
<tr>
<td>FAM 182</td>
<td>Jazz Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>FAM 184</td>
<td>Chamber Orchestra</td>
<td>1</td>
</tr>
<tr>
<td>FAM 185</td>
<td>Concert Band</td>
<td>1</td>
</tr>
</tbody>
</table>

or for zero (0) credit:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 171</td>
<td>Chorale</td>
<td>0</td>
</tr>
<tr>
<td>FAM 172</td>
<td>Jazz Ensemble</td>
<td>0</td>
</tr>
<tr>
<td>FAM 174</td>
<td>Chamber Orchestra</td>
<td>0</td>
</tr>
<tr>
<td>FAM 175</td>
<td>Concert Band</td>
<td>0</td>
</tr>
</tbody>
</table>

Students may opt for zero credit to avoid exceeding 18 credits in a semester. (0 - 8 credits)

Music Electives can be chosen from the following courses (choose one):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 112</td>
<td>The World of Opera</td>
<td>3</td>
</tr>
<tr>
<td>FAM 123</td>
<td>World Musics (3 credits)</td>
<td>3</td>
</tr>
<tr>
<td>FAM 124</td>
<td>America’s Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 212</td>
<td>Canisius and the BPO Experience</td>
<td>3</td>
</tr>
<tr>
<td>FAM 213</td>
<td>Women in Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 214</td>
<td>Music in Film</td>
<td>3</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 Baroque Period</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>
<tr>
<td>FAM 221</td>
<td>Opera Workshop</td>
<td>3</td>
</tr>
<tr>
<td>FAM 222</td>
<td>Opera Workshop II</td>
<td>3</td>
</tr>
<tr>
<td>FAM 224</td>
<td>Afro-Centric Music</td>
<td>3</td>
</tr>
<tr>
<td>FAM 250</td>
<td>Music for Children</td>
<td>3</td>
</tr>
<tr>
<td>FAM 255</td>
<td>Diction for Singers</td>
<td>3</td>
</tr>
</tbody>
</table>

**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**

**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></td>
<td>FAM 119 (3 credits)</td>
</tr>
<tr>
<td>Freshman</td>
<td></td>
<td>FAM 230/230L (4 credits)</td>
</tr>
<tr>
<td></td>
<td>FAM 225 (2 credits)</td>
<td>FAM 225 (2 credits)</td>
</tr>
<tr>
<td></td>
<td>FAM Ensemble</td>
<td>Music Ensemble</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FAM 330/330L (4 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td></td>
<td>FAM 210 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>FAM 225 (2 credits)</td>
<td>Music Ensemble</td>
</tr>
<tr>
<td></td>
<td>Music Ensemble</td>
<td></td>
</tr>
</tbody>
</table>
Dual Majors
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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.

For a more detailed description of the Music Program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/music/index.dot

For Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/music/learning-goals-objectives/

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
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<table>
<thead>
<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 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></td>
</tr>
<tr>
<td>FAM 255</td>
<td>Music Performance: four semesters</td>
<td>8</td>
</tr>
<tr>
<td>FAM Music History Course (choose one of the following):</td>
<td></td>
<td></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 Baroque Period</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>
<tr>
<td>DMA Course (choose one of the following):</td>
<td></td>
<td></td>
</tr>
<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:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 181</td>
<td>Chorale</td>
<td>1</td>
</tr>
<tr>
<td>FAM 182</td>
<td>Jazz Ensemble</td>
<td>1</td>
</tr>
<tr>
<td>FAM 184</td>
<td>Chamber Orchestra</td>
<td>1</td>
</tr>
<tr>
<td>FAM 185</td>
<td>Concert Band</td>
<td>1</td>
</tr>
</tbody>
</table>

or for zero (0) credit:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAM 171</td>
<td>Chorale</td>
<td>0</td>
</tr>
<tr>
<td>FAM 172</td>
<td>Jazz Ensemble</td>
<td>0</td>
</tr>
<tr>
<td>FAM 174</td>
<td>Chamber Orchestra</td>
<td>0</td>
</tr>
<tr>
<td>FAM 175</td>
<td>Concert Band</td>
<td>0</td>
</tr>
</tbody>
</table>

Students may opt for zero credit to avoid exceeding 18 credits in a semester. (0 - 8 credits)

Business Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 101</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ECO 255</td>
<td>Business Stats I</td>
<td>3</td>
</tr>
<tr>
<td>MGT 101</td>
<td>Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 201</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>FIN 201</td>
<td>Business Finance</td>
<td>3</td>
</tr>
</tbody>
</table>

Business Elective (choose one of the following):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ECO 102</td>
<td>Principles of Microeconomics</td>
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<tr>
<td>MGT 360</td>
<td>Organizational Behavior</td>
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<td>MGT 364</td>
<td>Human Resources Management</td>
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<td>MKT 320</td>
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<td>MKT 351</td>
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<td>MKT 352</td>
<td>Professional Sales</td>
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</tbody>
</table>

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:

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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>FAM 230/230L (4 credits)</td>
<td>FAM 119 (3 credits)</td>
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<tr>
<td></td>
<td>FAM 225 (2 credits)</td>
<td>FAM 240/240L (4 credits)</td>
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<td>Music Ensemble</td>
<td>FAM 225 (2 credits)</td>
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<td>ECO 101 (3 credits)</td>
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<td>MKT 101 (3 credits)</td>
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<td>FAM 330/330L (4 credits)</td>
<td>FAM 340/340L (4 credits)</td>
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<td>FAM 210 (3 credits)</td>
<td>Music History Course</td>
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<td>FAM 225 (2 credits)</td>
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<td>Music Ensemble</td>
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<td>ACC 201 (3 credits)</td>
<td>MKT 201 (3 credits)</td>
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<td>Junior</td>
<td>FAM 360 (3 credits)</td>
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<td>Music Ensemble</td>
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<td></td>
<td>ECO 225 (3 credits)</td>
<td>DMA 309 or 310 (3 credits) (see note below)</td>
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<td>FIN 201 (3 credits)</td>
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<td>Senior</td>
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<td>Music Ensemble</td>
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<tr>
<td></td>
<td>Business Elective</td>
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</tbody>
</table>

Note: DMA 309 and 310 are offered in alternate years.
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.

Fine Arts Courses: 2013-2015
(Music)

FAM 112 The World of Opera 3 credits
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 3 credits
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 3 credits
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, Global Awareness)

FAM 123 World Musics 3 credits
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, Global Awareness) Spring

FAM 124 America's Music 3 credits
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, Diversity)

FAM 125 Music Performance 1 credit
Half-hour private lessons, designed for all levels of experience, are offered in piano, organ, harp, guitar, voice, strings, woodwinds, brass, strings, percussion, conducting, and improvisation.

FAM 171 Chorale 0 credits
A mixed-voice singing group that performs repertoire in both the classical and popular styles. (Same as FAM 181 except for "O" credit.)

FAM 172 Jazz Ensemble 0 credits
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 "O" credit)

FAM 174 Chamber Orchestra 0 credits
Chamber 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 "O" credit)
FAM 175 Concert Band 0 credits
Campus-wide instrumental ensemble performing a wide variety of standard concert band literature. (Same as FAM 185 except for "0" credit.)

FAM 181 Chorale 1 credit
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 1 credit
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 1 credit
Chamber 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 1 credit
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 3 credits
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 3 credits
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, Global Awareness, Oral Communication)

FAM 213 Women in Music 3 credits
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, Diversity)

FAM 214 Music in Film 3 credits
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 3 credits
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, Global Awareness)

FAM 217 Music of the Baroque Period 3 credits
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, Global Awareness)

FAM 218 Music of the Classical Period 3 credits
A study of European art music 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, Global Awareness)

FAM 219 19th Century Music 3 credits
Great composers of the Romantic period, including their lives, selected works, musical style and influence. (Field 3, Global Awareness)

FAM 220 Art Music from 1900 to the Present 3 credits

FAM 221 Opera Workshop 3 credits
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)
FAM 222 Opera Workshop II 3 credits
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)

FAM 224 Afro-Centric Music 3 credits
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, Global Awareness) Fall, Summer

FAM 225 Music Performance 2 credits
Hour-length private lessons, designed for the experienced musician, are offered in piano, organ, harp, guitar, voice, strings, woodwinds, brass, strings, percussion, conducting, and improvisation.

FAM 230 Theory I 3 credits
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

FAM 230L Theory I Lab 1 credit
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

FAM 240 Theory II: Fundamentals of Four-Part Writing 3 credits
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

FAM 240L Theory II Lab 1 credit
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

FAM 250 Music for Children 3 credits
Course provides the backgrounds, models and skills necessary to create musical experiences for the pre-school and elementary-age child.

FAM 255 Diction for Singers 3 credits
The study of correct pronunciation for singing in English and foreign languages using the International Phonetic Alphabet.

FAM 330 Theory III 3 credits
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

FAM 330L Theory III Lab 1 credit
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

FAM 340 Theory IV 3 credits
Musical styles, forms and techniques of the 20th century, including impressionism, atonality, serialization, 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

FAM 340L Theory IV Lab 1 credit
Advanced lab instruction in sight-singing and ear-training. Includes computer-assisted instruction. Course to be taken concurrently with FAM 340 Theory IV. Spring

FAM 350 Basic Conducting 3 credits
Development of students’ basic conducting skills of beat, pattern and gesture, leadership of musical activities and musicianship including applied ear training and score analysis.
FAM 360 Music Business I 3 credits
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.

FAM 361 Music Business II 3 credits
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.

FAM 390 Sounding Society 3 credits
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)

FAM 450 Senior Seminar 3 credits
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. (Oral Communication)

FAM 498 Internship 3 credits
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
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.
FINE ARTS – STUDIO ART MINOR

Dirctor: Christine M. Walsh, PhD

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 a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/studio-art/index.dot

For Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/studio-art/learning-goals/

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 Major Core Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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.

Minor Courses

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<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<td>FAS 110</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>Three-Dimensional Design</td>
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<tr>
<td>FAS 131</td>
<td>Sculpture I</td>
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<td>FAS 140</td>
<td>Introduction to Still Photography</td>
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<tr>
<td>FAS 141</td>
<td>Digital Photography</td>
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<td>FAS 142</td>
<td>Travel Photography</td>
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<td>FAS 150</td>
<td>Color</td>
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<td>FAS 160</td>
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<td>FAS 161</td>
<td>Experimental Printmaking Techniques</td>
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<td>FAS 162</td>
<td>Monotype Techniques</td>
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<td>FAS 170</td>
<td>Painting I</td>
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<td>FAS 220</td>
<td>Drawing II</td>
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<td>FAS 222</td>
<td>Figure Drawing I</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>
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<td>FAS 270</td>
<td>Painting II</td>
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<tr>
<td>FAS 271</td>
<td>Landscape Painting</td>
<td>3</td>
</tr>
<tr>
<td>FAS 499</td>
<td>Independent Study in Studio Art</td>
<td>3</td>
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</table>
Studio Art Courses: 2013-2015

FAS 110 Two-Dimensional Design 3 credits
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 3 credits
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 3 credits
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 3 credits
Emphasis on traditional techniques. Assignments cover specific materials (plaster, wood, styrofoam, metal, paper) and particular techniques (armature construction, wood working, riveting, mold making, paper mache). (Field 3)
Prerequisite: 3D Design or portfolio review by instructor.

FAS 140 Introduction to Still Photography 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
Course emphasizes the basic process of clay modeling and mold making in plaster. Beginning with hand-built sculptural forms, student’s progress to realistic clay modeling that will be completed by making a mold and casting in plaster. (Field 3)

FAS 240 Color Photography 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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.
Introduction
Dance classes at Canisius College are open to students of all levels of experience. Students may earn college credit by taking courses in Pilates® and dance appreciation.

Dance Courses
FAD 105 Pilates® 3 credits
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 120 Dance Appreciation 3 credits
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.

Neglia Conservatory of Ballet
Opportunities exist for students to take lessons in ballet and modern dance at the studios of the Neglia Conservatory of Ballet. Formed in 1994 by Sergio Neglia and Heidi Halt, the conservatory 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 visit www.negliaballet.org.
HEALTH AND WELLNESS

Chair: Peter Koehneke

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 National Strength and Conditioning Association, American College of Sports Medicine, National Academy of Sports Medicine and American Council on Exercise will be available following completion of the degree. 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.

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. 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, physician’s 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.

For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/health-wellness/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/health-wellness/learning-goals/

Qualifications
Students must achieve a C or above in the following courses: BIO 114 and lab, BIO 115 and lab, ATH 170, HED 205, and KIN 235 and also maintain a 2.3 GPA in their major and a 2.3 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, Physician’s Assistant, etc.) should seek advisement through the Canisius College Pre-Med director in addition to the major advisor.

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

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>ATH 170</td>
<td>Emergency Care</td>
<td>3</td>
</tr>
<tr>
<td>ATH 398</td>
<td>Statistics and Research Design</td>
<td>3</td>
</tr>
<tr>
<td>BIO 114/L</td>
<td>Human Biology: An Introduction</td>
<td>4</td>
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<tr>
<td></td>
<td>to Anatomy and Physiology</td>
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<tr>
<td>BIO 115/L</td>
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<td>Physiology</td>
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</tr>
<tr>
<td>HED 115</td>
<td>Basic Nutrition</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>HED 337</td>
<td>Exercise Principles</td>
<td>3</td>
</tr>
</tbody>
</table>
HED 361  Psychology of Sport and Mental Health  3
HED 425  Evolution of Disease and Illness  3
KIN 235  Kinesiology  3
KIN 336/L  Physiology of Exercise and lab  4
KIN 350  Organization and Administration of Health and Wellness  3
KIN 498  Internship in Health and Wellness  3
PSY 101  Introduction to Psychology I  3
PSY 102  Introduction to Psychology II  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>ATH 170 (3 credits)</td>
<td>BIO 115 and Lab (4 credits)</td>
</tr>
<tr>
<td></td>
<td>BIO 114 and Lab (4 credits)</td>
<td>ENG 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>FYS 101 (3 credits)</td>
<td>HED 115 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Field 3 or 4 (3 credits)</td>
<td>Field 3 or 4 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Elective (3 credits)</td>
<td>Elective (3 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>HED 220 (3 credits)</td>
<td>HED 205 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>KIN 235 (3 credits)</td>
<td>HED 425 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>PSY 101 (3 credits)</td>
<td>PHI 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>RST 101 (3 credits)</td>
<td>PSY 102 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Elective (3 credits)</td>
<td>Elective (3 credits)</td>
</tr>
<tr>
<td>Junior</td>
<td>KIN 336/L (4 credits)</td>
<td>ATH 398 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Field 1 or 2 (3 credits)</td>
<td>HED 337 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Attribute (3 credits)</td>
<td>HED 361 (3 credits)</td>
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<tr>
<td></td>
<td>Attribute (3 credits)</td>
<td>Field 1 or 2 (3 credits)</td>
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<tr>
<td></td>
<td>Elective (3 credits)</td>
<td>Elective (3 credits)</td>
</tr>
<tr>
<td>Senior</td>
<td>KIN 350 (3 credits)</td>
<td>KIN 498 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Core Capstone (3 credits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elective (3 credits)</td>
<td>Elective (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Elective (3 credits)</td>
<td>Elective (3 credits)</td>
</tr>
</tbody>
</table>

**Major Electives**
Health and Wellness majors should consult their advisor for major electives.

**Major Experiences**
All students in the health and wellness major must meet and continue to meet the professional standards of the program. No one who jeopardizes the health or well-being of a client/patient, classmate or him or herself will continue as a student in the program. All students must possess the necessary physical attributes and exhibit qualities of good judgment and emotional stability.

The Health and Wellness 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 assessment handbook outlines the enforcement of this policy. In all cases, the final appeal may be made to the Department of Kinesiology chair.

**Additional Course Considerations**
Health and Wellness majors should consult their advisor for additional course considerations.
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.

The Strength and Conditioning minor is common minor for health and wellness students. The minor provides students with preparation for the fields of strength and conditioning, wellness, and for related graduate work. It also helps students prepare for specialty certifications through the National Strength and Conditioning Association, the American College of Sports Medicine and the National Academy of Sports Medicine. Strength and conditioning courses have specific pre-requisites, which are stated in the course descriptions.

Admission to the Strength and Conditioning 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 KIN 235. Each course must be completed with a grade of C (2.3) or higher. The applicant must attain a minimum C (2.3) 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 Strength and Conditioning minor at Canisius College must complete a Change of Major/Minor form. Application for the minor must be completed following enrollment in KIN 235.

Strength and Conditioning Minor Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 114</td>
<td>Human Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 115</td>
<td>Musculoskeletal Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>KIN 235</td>
<td>Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KIN 336</td>
<td>Physiology of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>HED 337</td>
<td>Exercise Principles</td>
<td>3</td>
</tr>
<tr>
<td>ATH 373</td>
<td>Nutritional Issues for Athletic Trainers</td>
<td>3</td>
</tr>
<tr>
<td>HED 115</td>
<td>Basic Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>PED 365</td>
<td>Principles and Philosophy of Coaching</td>
<td>3</td>
</tr>
<tr>
<td>KIN 420</td>
<td>Strength and Conditioning Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Dr. Karl Kozlowski or Dr. Chuck Pelitera serve as advisors for the Strength and Conditioning minor program in the Department of Kinesiology.

Health and Wellness Courses: 2013 - 2015

ATH 170 Emergency Care and Introduction to Athletic Training 3 credits
Recognition and immediate care of common illnesses and injuries. Content meets National Safety Council requirements for Standard First Aid and CPR. Fall, Spring

ATH 398 Statistics and Research Design for Athletic Trainers 3 credits
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: KIN 235 with a grade of C or above. Spring
HED 115 Basic Nutrition  3 credits
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 credits
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 credits
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  3 credits
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 and HED 205 with a grade of C or above. Fall, Spring

HED 425 Evolution of Disease and Illness  3 credits
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

KIN 235 Kinesiology  3 credits
Scientific study of human movement, emphasizing the basic principles of musculoskeletal anatomy, neuromuscular physiology and biomechanics. Prerequisite: BIO 115 and lab with a grade of C or above. Fall, Spring

KIN 336 Physiology of Exercise  3 credits
Effects of physical activity upon the functioning human body. Restrictions on levels of physical activity by normal metabolic limitations. Lab required (KIN 336L) for Athletic Training majors. Prerequisite: BIO 115 and lab and KIN 235 with a minimum grade of C. Fall, Spring

KIN 336L Physiology of Exercise Lab  1 credit
Laboratory experiences in physiology of exercise. Lab required (HHP 336L) for Athletic Training and Health and Wellness majors. Prerequisite: Concurrent registration in KIN 336. Fall, Spring

KIN 350 Organization and Administration of Health and Wellness  3 credits
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. Fall

KIN 498 Internship in Health and Wellness  6 credits
Field-based experience in a health and wellness related field. Requires a minimum of 240 clock hours over twelve weeks. Prerequisites: HED 115, HED 220, PSY 101, PSY 102, KIN 336/L, HED 337, and HED 425.; Instructor Signature, application. Summer, Fall, Spring
Chair: David R. Devereux, PhD

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. For a more detailed description of our program, faculty, and academic and co-curricular opportunities please go to our website at http://www.canisius.edu/history/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/history/learning-goals-objectives/

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

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 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 299)
- A course designated as a major seminar
- 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.
Major Experiences
The history department offers a departmental honors program consisting of three advanced seminars: HIS 401 Historical Methodology, HIS 411 Senior Honors Thesis, and a History Seminar at the 400 level. These courses are designed to develop the research, writing, and analytical skills necessary for graduate and professional school. Students who complete these three courses with a 3.25 average and a 3.00 average in all their history courses graduate with honors in history. The History Honors program is appropriate for students majoring in history as well as Social Studies Education. It is compatible with the All-College Honors Program as well as the Core Curriculum. History majors also pursue a variety of off-campus experiences. Canisius offers study abroad programs in Europe, Asia, Latin America, and Australia; any of these programs can be combined with the history major. The department offers a variety of opportunities for academic travel. In recent years students and faculty members have combined travel with study of the Holocaust, the American Civil Rights Movement, and Native American History. History students also undertake internships which offer the opportunity to explore opportunities outside academia, particularly in the exciting field of public history. A variety of extracurricular and co-curricular activities are organized by the History Club. Qualified students are invited to join Phi Alpha Theta, the national honors society in history.

Additional Course Considerations
Students majoring in history are strongly encouraged to study either an ancient or modern foreign language. Foreign language study is essential for those who plan to study history at the graduate level; at the undergraduate level, it plays a vital role in achieving the Core goal of global awareness as well as the history program's objective of developing historical knowledge which is characterized by geographical and cultural breadth.

Dual Majors
History is multifaceted; its students find connections with nearly every other discipline. Our students pursue dual majors in a wide variety of fields including Anthropology, Communications, English, European Studies, International Relations, Mathematics, Modern Languages, Philosophy, Political Science, Psychology, and Urban Studies. History majors also pursue Pre-Law and Pre-Medical programs.

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.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLG 208</td>
<td>Greek Historians: Sources for Athenian History</td>
<td>3</td>
<td>Selected Greek historical authors, genres, or themes. (Field 4)</td>
<td>Fall/Spring</td>
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<tr>
<td>CLG 308</td>
<td>Readings in Greek History: Sources for Athenian History</td>
<td>3</td>
<td>Selected Greek historical authors, genres, or themes. (Field 4)</td>
<td>Fall/Spring</td>
</tr>
<tr>
<td>CLS 103</td>
<td>Greek History</td>
<td>3</td>
<td>Social, political, and intellectual history of the Greeks from the end of the Bronze Age to the Hellenistic period. (Global Awareness Attribute, Field 4)</td>
<td>Fall</td>
</tr>
<tr>
<td>CLS 104</td>
<td>Roman History</td>
<td>3</td>
<td>Social, political, and intellectual history of Rome from the foundation of the city to late antiquity. (Global Awareness Attribute, Field 4)</td>
<td>Spring</td>
</tr>
<tr>
<td>CLS 300</td>
<td>Roman Law and Society</td>
<td>3</td>
<td>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)</td>
<td>Fall 2014, Fall 2014, or Spring 2015</td>
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<tr>
<td>CLS 301</td>
<td>The Age of Cicero</td>
<td>3</td>
<td>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)</td>
<td>Fall 2014 or Spring 2015</td>
</tr>
<tr>
<td>CLS 308</td>
<td>Pagans and Christians</td>
<td>3</td>
<td>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)</td>
<td>Spring 2014</td>
</tr>
<tr>
<td>CLS 311</td>
<td>Alexander the Great</td>
<td>3</td>
<td>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)</td>
<td>Fall 2014</td>
</tr>
<tr>
<td>CLS 312</td>
<td>The Greek Enlightenment</td>
<td>3</td>
<td>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)</td>
<td>Spring 2015</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)</td>
<td>Spring and/or Fall</td>
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<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)</td>
<td>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)</td>
<td>Spring and/or Fall</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)</td>
<td>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)</td>
<td>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)</td>
<td>Fall and/or Spring</td>
</tr>
</tbody>
</table>
HIS 124 History of the United States: 1877 to the Present

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

HIS 125 America's Story I: The Early Years

This course introduces the major events, figures and themes of American history form the Colonial period to Reconstruction with an emphasis on discussion and presentation of material. Not open to students taking or who have received credit for HIS 123. (Field 4, Diversity attribute, Oral Communication) Fall

HIS 126 America's Story II: The Later Years

The American Story is a course in American history that covers the late 19th century into the late 20th century as the US evolved into a major industrial and international power. This course satisfies the oral communication attribute. (Field 4, Diversity and Oral Communication attributes) Spring

HIS 131 Latin American History to 1830

Pre-Columbian Indian civilizations. Conquest and colonization. Economy, society, and the Church. Eighteenth century reforms and independence. (Field 4, Global attribute) Fall

HIS 132 Latin American History since 1830

Overview of economy and society. Upheavals and revolutions in Argentina, Brazil, Colombia, Cuba, Chile and Mexico (Field 4, Global attribute) Spring

HIS 202 History of Science

Using case studies examines the history of science from the Scientific Revolution in the 16th and 17th centuries through the present. The primary emphasis is on science in society. (Field 4) Fall 2013

HIS 211 Women in the Western World

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

HIS 212 Men and Ideas in History

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) Fall and/or Spring

HIS 213 Twentieth Century Europe

Major political, economic, social and intellectual currents in Europe since 1900. (Field 4, Global attribute) Fall and/or Spring

HIS 220 The History of Food

Explores the evolving role of food in western societies from the middle ages to the present. Topics will include the medieval fascination with spices, Europe's adoption of "New World" foods like potatoes and tomatoes, the role of food shortages and rationing in wartime, and the recent emergence of a diverse international "foodie culture." By investigating how our diets have changed over time, we will explore social, cultural, political and economic developments. In addition to reading assignments, class discussions, and written work, the course will include tastings and opportunities to experience the history and culture of food in the Buffalo-area. Fall 2013

HIS 226 History of Ireland

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

HIS 227 The Irish Story

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 gaeltacht. Course is primarily discussion based; includes in-class debates and oral presentations as well as significant reading assignments and written work including midterm and final examinations. (Field 4, Global and Oral Communications attributes) Not open to students who have taken HIS 226. Spring
HIS 229 The Violent Century in Films 3 credits
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

HIS 230 The Holocaust in Historical Perspective 3 credits
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

HIS 231/GER 236 The Holocaust in History and Literature 3 credits
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 who have had previous coursework in either the history or literature of the Holocaust. (Field 4)

HIS 234 The Atlantic World: Contact, Colonization, and Commerce 3 credits
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 credits
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) Fall 2013

HIS 236 From Washington to Lincoln: The Making of American Democracy 3 credits
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, Diversity attribute)

HIS 237 The Making of Modern America 1865-1920 3 credits
This course offers a survey of the major themes of one of the most dynamic periods in American History. Among the topics covered are Reconstruction, urbanization, industrialization, mass migration, the closing of the western frontier, Progressive Reform and the Great War and its aftermath. We will interrogate a variety of written and visual sources to better understand the major conflicts of the period and how they were resolved. (Field 4, Diversity Attribute)

HIS 240 Women in American History, Colonial Times to 1880 3 credits
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 credits
This course explores the historical experiences of American women between 1880 and the present with attention to how the intersections of class, race, ethnicity 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 credits
Few institutions rival the family in the power it exerts on American social and cultural life. This course explores patterns in American families from 1800 to the present with special attention to the impact of class, race, ethnicity, and sexual orientation. It is organized around the major themes in the American experience including slavery, urbanization, industrialization, migration, and war. (Field 4, Diversity attribute)
HIS 251 Sports in America 3 credits
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 credits
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 credits
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 credits
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 261 The City in American History 3 credits
This course is a survey of the development of the city in America from its colonial origins through the early twentieth century. (Field 4)

HIS 263 Wars of Latin America 3 credits
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) Fall 2013

HIS 280 The Making of Modern Africa 3 credits
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) Fall 2013

HIS 299: “Historian's Craft” 3 credits
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. (Writing Intensive Attribute)

HIS 300 Historical Geography 3 credits
Examines the interaction between the historical process and human, physical and cultural geography. Required for dual major in history and social studies education. Spring 2014

HIS 302 A Life in the Colonial Atlantic World 3 credits
Investigates the story of the colonial Atlantic world through the life and experiences of one of America's founding fathers, such as the philosopher and 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 credits
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 raced identities as a result of such contact.

HIS 306 The American Religious Experience 3 credits
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)
HIS 309 World War I 3 credits
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 credits
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 Reform Europe 3 credits
The Reformation from Luther to the 30 Years War. (Field 1)

HIS 319 The Enlightenment 3 credits
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 credits
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 credits
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)

HIS 332 Medieval and Early Modern England 3 credits
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 credits
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 credits
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 credits
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 credits

HIS 337 The History of Globalization 3 credits
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 credits
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 credits
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 Global Cold War 3 credits
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 credits
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 The Soviet Union and After 3 credits
This course examines the history of the Cold War between 1945 and 1991. It focuses on the attempts of the Soviet Union and the United States to extend their influence and models of development into Asia, Africa, Latin America, and Europe through armed interventions, covert operations, espionage, and propaganda. Some of the events and topics covered in the course include the origins of the Cold War, the Korean, Vietnamese, and Afghan Wars, the Cuban Revolution, the Arms Race, Détente, decolonization, and the fall of the Soviet Union. Fall 2013

HIS 346 The Age of European Fascism, 1919-1945 3 credits
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 credits
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 credits
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) Fall 2013

HIS 350 Modern Eastern Europe 3 credits
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 credits

HIS 354 Imperial Russia 3 credits
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 355 Chinese Culture and Civilization before 1900 3 credits
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 credits
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. Fall 2013

HIS 357 The Old South 3 credits
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 credits
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 credits
Development of modern Japan from Restoration of 1868 to the present.
HIS 364 Technology in America 3 credits
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 365 U.S.–Latin American Relations since 1898 3 credits

HIS 370 Murder & Madness in Modern America 3 credits
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. Fall 2013

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 natures 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 3 credits
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 3 credits
This course explores the history of New York State from its colonial origins through the twentieth century in the context of major themes in American history. Special attention paid to slavery, ante-bellum reform movements, New York City, progressivism, immigration. Throughout we will study the people – famous and infamous, rich, poor, and middling – who built the Empire State.

HIS 383 The Gilded Age and the Progressive Era 3 credits
This course examines topics in the political, economic and social transformation of America between 1877 and 1920. During these tumultuous decades, the United States entered a period of sustained economic and industrial growth, creating new wealth, jobs, and generally a higher standard of living for many Americans. Nevertheless, the social, political, and economic inequalities raised significant questions about democracy in America.

HIS 384 The Roaring Twenties 3 credits
This course examines the extraordinary decade of the 1920s in America, which saw the “noble experiment” of Prohibition, the hedonism of “flaming youth,” the changing role of women; the automobile revolution; and the reactions of white supremacists, Christian fundamentalists, writers, and the “New Negro.” It was also a time of escapism, following a generation of reform and the horror of the Great War. Many Americans now delighted in gold-fish swallowing, flag-pole sitting, bathtub gin and Al Capone, larger-than-life athletic contests, and movie-watching of vamps like Clara Bow. There was never a decade like it before or since.

HIS 386 The Civil War Era 3 credits
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. Fall 2013

HIS 387 Representations of the Holocaust in Film and Literature, Art and Music 3 credits
For many historians, the defining moment of the twentieth century is the Holocaust — the systematic and deliberate extermination of an estimated ten to twelve million people, of whom six millions were Jews. This senior capstone
course explores representations of the Holocaust in literature and film since the end of World War II. Texts include memoirs and reflections of those who survived the Holocaust, literary and poetic representations of the Holocaust, in part by survivors and in part by writers who viewed the Holocaust from a distance and cinematic representations of the Holocaust. The course will conclude with a careful reconsideration of the moral dimensions of the Holocaust. (Field 3, Ethics attribute) Fall 2013

HIS 390 Civil Rights Movement 3 credits
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 3 credits
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 3 credits
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 396 Politics and Society in American Film 3 credits
This course explores the history of film, the quintessentially democratic art, in the United States with special attention to the origins of the moving pictures, Hollywood and its Golden Age, and the assault against the movies by the House Un-American Activities Committee. We also examine how the movies represented some of the major social and political conflicts in America life. Themes include immigration and ethnicity, gender roles, racial conflict, urban life, labor, and American individualism.

HIS 399 U.S. Foreign Relations since 1898 3 credits
The rise of the United States as a world power since the Spanish-American War of 1898. The struggle against Germany in Europe. The Cold War against the Soviet Union and Communist China. U.S. military interventions and CIA operations in Latin America, Asia, and the Middle East.

HIS 401 Historical Methodology 3 credits
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. Fall

HIS 411 Seniors Honors Thesis 3 credits
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 3 credits
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. (History Seminar)

HIS 421 Nature and the Arts of Angling, Restoration, and Contemplation 3 credits
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)
HIS 440 Seminar on Genocide and Human Rights in the 20th Century 3 credits
This course explores the high incidence of genocide in the 20th century and the response of the international community to the problem of genocide. It focuses on five discrete instances of genocide beginning with the massacre of the Hereros and Namaqua in German South-West Africa from 1904-07, the Armenian Genocide in Turkey during World War I, the Jewish Holocaust in World War II, the genocide accompanying the break-up of Yugoslavia in the 1980s, and ending with the genocidal attack of the Hutu on the Tutsi in Rwanda in the 1990s. It also examines the efforts of international community to address the problem of genocide and concentrates in particular on the affirmation of the doctrine of human rights in the period after World War II.

HIS 450 America and the Holocaust 3 credits
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)

HIS 460 The Life and Times of Theodore Roosevelt 3 credits
Explores 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) Fall 2013

HIS 468 Reservation Experience 3 credits
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 487 Representations of the Holocaust in Film and Literature 3 credits
Senior Capstone course that explores the representations of the holocaust in literature and film since the end of World War Two. (Core Capstone; seniors only, not open to students who have taken HIS 387)

HIS 498 Internship 3 credits
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 3 credits
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.

PSC 111 Western Political Tradition II 3 credits
Development of Western political tradition from Machiavelli to present, emphasizing development of liberal, conservative and socialist traditions. (Field 4, Justice Attribute) Fall

RST 325 Early Christianity 3 credits
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

RST 327 Modern Global Christianity 3 credits
Historical study of the life, thought, and worship of Christians, both Protestant and Catholic, from the Reformation to the present. Field 1
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**

1. Core Curriculum Requirements: All students complete Core Curriculum requirements as part of their overall Canisius Education. These requirements can be found at [http://www.canisius.edu/academics/core](http://www.canisius.edu/academics/core)

2. Major course requirements (19 courses)

<table>
<thead>
<tr>
<th>Subject</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>two 200 level courses plus two 300 - 400 level courses in a major literary genre</td>
</tr>
<tr>
<td>History</td>
<td>two 300/400-level courses</td>
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<tr>
<td>Philosophy</td>
<td>four 200/400-level courses</td>
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<tr>
<td>Religious Studies</td>
<td>two 300/400-level courses</td>
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<tr>
<td>Modern Language</td>
<td>two courses in Modern Language or Literature in Translation and/or Civilization</td>
</tr>
<tr>
<td>Humanities</td>
<td>two courses to be selected from Fine Arts, History, Music, Religious Studies, Philosophy 300 level</td>
</tr>
<tr>
<td>Concentration</td>
<td>Three additional 300/400-level courses in one of the following departments: Fine Arts, English, History, Modern Language, Music, Religious Studies, Philosophy</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 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)**

1. Core Curriculum Requirements: All students complete Core Curriculum requirements as part of their overall Canisius Education. These requirements can be found at [http://www.canisius.edu/academics/core](http://www.canisius.edu/academics/core)

2. Course requirements (6 courses)

<table>
<thead>
<tr>
<th>Track</th>
<th>Courses</th>
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<tbody>
<tr>
<td>Humanities Track</td>
<td>(6 courses)</td>
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<tr>
<td>English</td>
<td>two 200 level courses</td>
</tr>
<tr>
<td>Religious Studies</td>
<td>two courses</td>
</tr>
<tr>
<td>Humanities</td>
<td>two courses, to be selected from Fine Arts, English, History, Modern Language, Music, Religious Studies, Philosophy 300 level</td>
</tr>
<tr>
<td>Business Track</td>
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<tr>
<td>Art and Literature</td>
<td>two courses</td>
</tr>
<tr>
<td>Religious Studies</td>
<td>two courses</td>
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<tr>
<td>Business Electives</td>
<td>two courses</td>
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</tbody>
</table>

3. 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 dean in the College of Arts and Sciences.
**Director: Coral Snodgrass, PhD**

**Introduction**
For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/international-business/index.dot

**Goals**
For learning goals and objectives please go to http://www.canisius.edu/international-business/learning-goals-objectives/

**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 Curriculum**
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

**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>IBUS 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>or ECO 460</td>
<td>International Trade</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>

**Major Electives**
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.

**Additional Course Considerations**
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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>MAT 105 and MAT 106 or MAT 115</td>
<td>Linear Algebra and Calculus for the Non-Sciences or Calculus for Business I</td>
</tr>
<tr>
<td>ACC 201</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>ACC 202</td>
<td>Managerial Accounting</td>
</tr>
<tr>
<td>ECO 101</td>
<td>Principles of Macroeconomics</td>
</tr>
<tr>
<td>ECO 102</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>ECO 255</td>
<td>Business Statistics I</td>
</tr>
<tr>
<td>ECO 256</td>
<td>Business Statistics II</td>
</tr>
<tr>
<td>FIN 201</td>
<td>Introduction to Finance</td>
</tr>
<tr>
<td>ISB 101</td>
<td>Management Technology</td>
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<tr>
<td>MGT 101</td>
<td>Introduction to Management</td>
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<td>Year</td>
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<tr>
<td>Freshman</td>
<td>FYS 101</td>
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<td>MAT 105 or MAT 115 or MAT 111</td>
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<td></td>
<td>RST 101</td>
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<td></td>
<td>ECO 101 MACRO (Social Sciences Field)</td>
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<td>Modern Language 215</td>
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<td>ACC 201</td>
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<td></td>
<td>Field of Knowledge</td>
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<tr>
<td></td>
<td>ECO 255 STATS 1 (Mathematics Field)</td>
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<td>ISB 101</td>
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</tbody>
</table>

**Recommended Schedule:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>FYS 101</td>
<td>ENG 101</td>
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<tr>
<td></td>
<td>MAT 105 or MAT 115 or MAT 111</td>
<td>MAT 106 or free elective if Mat. 111</td>
</tr>
<tr>
<td></td>
<td>RST 101</td>
<td>PHI 101</td>
</tr>
<tr>
<td></td>
<td>ECO 101 MACRO (Social Sciences Field)</td>
<td>ECO 102 MICRO</td>
</tr>
<tr>
<td></td>
<td>Modern Language 215</td>
<td>Modern Language 216</td>
</tr>
<tr>
<td>Sophomore</td>
<td>MKT 201</td>
<td>FIN 201</td>
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<tr>
<td></td>
<td>ACC 201</td>
<td>ACC 202</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge</td>
<td>Field of Knowledge</td>
</tr>
<tr>
<td></td>
<td>ECO 255 STATS 1 (Mathematics Field)</td>
<td>ECO 256 STATS 2</td>
</tr>
<tr>
<td></td>
<td>ISB 101</td>
<td>MGT 101</td>
</tr>
</tbody>
</table>

**International Business majors:**

- IBUS 301 Fundamentals of International Business
- MGT 472 Comparative Management Systems
- MKT 475 International Marketing
- FIN 460 or ECO 460 International Finance or International Trade
- International Business Electives (3 courses)
- Electives (2 or 3 courses)
- Restricted Electives (must be liberal arts) 4 courses

**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.
IBUS Core Courses: 2013-2015

**IBUS 301 Fundamentals of International Business** 3 credits
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 credits
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. Prerequisites: MGT 101 or permission of Instructor.

**MKT 475 International Marketing** 3 credits
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. Prerequisites: MKT 201 or permission of Instructor.

**FIN 460 International Finance** 3 credits
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.

**ECO 460 International Trade** 3 credits
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.

**Approved IBUS Electives include the following:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 460</td>
<td>International Trade</td>
<td>3</td>
</tr>
<tr>
<td>ENT 312</td>
<td>International Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>MGT 380</td>
<td>International Business Seminar</td>
<td>3</td>
</tr>
<tr>
<td>MGT 440</td>
<td>Global Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 474</td>
<td>(MKT 474) Doing Business in Canada</td>
<td>3</td>
</tr>
<tr>
<td>MGT 475</td>
<td>Doing Business in Latin America</td>
<td>3</td>
</tr>
<tr>
<td>MGT 476</td>
<td>Doing Business in Mexico</td>
<td>3</td>
</tr>
<tr>
<td>MGT 477</td>
<td>Transnational Management in Gateway Regions</td>
<td>3</td>
</tr>
<tr>
<td>MGT 480</td>
<td>International Law in Business Transactions</td>
<td>3</td>
</tr>
<tr>
<td>MKT 478</td>
<td>Global Logistics</td>
<td>3</td>
</tr>
</tbody>
</table>
International Relations

Director: Jonathan DiCicco, PhD

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/international-rel/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/international-rel/learning-goals-objectives/

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

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, which at Canisius College typically requires successful completion at least one 300-level foreign language course. 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: (minimum 17 courses)
Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Choose one of the three regional history</td>
<td></td>
</tr>
<tr>
<td></td>
<td>course groupings</td>
<td>6</td>
</tr>
<tr>
<td>Group 1</td>
<td></td>
<td></td>
</tr>
<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 1815</td>
<td>3</td>
</tr>
<tr>
<td>Group 2</td>
<td></td>
<td></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>Group 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIS 131</td>
<td>Latin American History to 1800</td>
<td>3</td>
</tr>
<tr>
<td>HIS 132</td>
<td>Latin American History since 1800</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></td>
<td>Introduction to Comparative Politics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>and Government</td>
<td></td>
</tr>
<tr>
<td>HIS 300</td>
<td>Historical Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIS 399</td>
<td>History of U.S. Foreign Relations</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSC 245</td>
<td>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</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>business course</td>
<td></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: successful completion of ML 215-216/217 (6 credits) and a 300-level course in a Modern Foreign Language (3 credits)

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 215-216/217 plus at least one course at the 300 level or above. If students are not placed at the 215-216/217 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:

Courses: 2013-2015

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 460</td>
<td>International Trade</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 263</td>
<td>Wars of Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HIS 280</td>
<td>The Making of Modern Africa</td>
<td>3</td>
</tr>
<tr>
<td>HIS 309</td>
<td>World War I</td>
<td>3</td>
</tr>
<tr>
<td>HIS 335</td>
<td>Britain in the Era of Total War</td>
<td>3</td>
</tr>
<tr>
<td>HIS 336</td>
<td>Modern Mexico</td>
<td>3</td>
</tr>
<tr>
<td>HIS 337</td>
<td>History of Globalization</td>
<td>3</td>
</tr>
<tr>
<td>HIS 338</td>
<td>Britain’s Empire</td>
<td>3</td>
</tr>
<tr>
<td>HIS 339</td>
<td>Nazi Germany, World War II, and the Holocaust</td>
<td>3</td>
</tr>
<tr>
<td>HIS 341</td>
<td>Europe: Decade of War 1936-48</td>
<td>3</td>
</tr>
<tr>
<td>HIS 342</td>
<td>Global History of the Cold War</td>
<td>3</td>
</tr>
<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>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------------</td>
<td>---------</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 352</td>
<td>The Cuban Revolution</td>
<td>3</td>
</tr>
<tr>
<td>HIS 356</td>
<td>Twentieth-Century China</td>
<td>3</td>
</tr>
<tr>
<td>HIS 359</td>
<td>History of Modern Japan 1868 to the Present</td>
<td>3</td>
</tr>
<tr>
<td>HIS 365</td>
<td>U.S.-Latin American Relations since 1898</td>
<td>3</td>
</tr>
<tr>
<td>HIS 380</td>
<td>America and the Cold War</td>
<td>3</td>
</tr>
<tr>
<td>HIS 394</td>
<td>Contemporary Middle East</td>
<td>3</td>
</tr>
<tr>
<td>HIS 399</td>
<td>History of US Foreign Relations</td>
<td>3</td>
</tr>
<tr>
<td>HIS 440</td>
<td>Genocide and Human Rights in the Twentieth Century</td>
<td>3</td>
</tr>
<tr>
<td>HON 220</td>
<td>War and Society in Modern Europe</td>
<td>3</td>
</tr>
<tr>
<td>HON 223</td>
<td>Revolutions in Latin America</td>
<td>3</td>
</tr>
<tr>
<td>HON 225</td>
<td>Empires and Their Aftermath</td>
<td>3</td>
</tr>
<tr>
<td>HON 231</td>
<td>War and Peace After 9/11</td>
<td>3</td>
</tr>
<tr>
<td>HON 247</td>
<td>Islam: Religion, History and Culture</td>
<td>3</td>
</tr>
<tr>
<td>IBUS 301</td>
<td>Fundamentals of International Business</td>
<td>3</td>
</tr>
<tr>
<td>MGT 380</td>
<td>International Business Seminar</td>
<td>3</td>
</tr>
<tr>
<td>MGT 440</td>
<td>Global Supply-Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 472</td>
<td>Comparative Management Systems</td>
<td>3</td>
</tr>
<tr>
<td>MGT 475</td>
<td>Doing Business in Latin America</td>
<td>3</td>
</tr>
<tr>
<td>MGT 476</td>
<td>Doing Business in Mexico</td>
<td>3</td>
</tr>
<tr>
<td>MGT 477</td>
<td>Transitional Management in Gateway Regions</td>
<td>3</td>
</tr>
<tr>
<td>MKT 474</td>
<td>Doing Business in Canada</td>
<td>3</td>
</tr>
<tr>
<td>MKT 475</td>
<td>International Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MKT 478</td>
<td>Global Logistics and Transportation</td>
<td>3</td>
</tr>
<tr>
<td>PHI 262</td>
<td>Philosophy of International Law</td>
<td>3</td>
</tr>
<tr>
<td>PSC 241</td>
<td>Human Rights and Globalization</td>
<td>3</td>
</tr>
<tr>
<td>PSC 242</td>
<td>International Organizations</td>
<td>3</td>
</tr>
<tr>
<td>PSC 244</td>
<td>War: Causes and Consequences</td>
<td>3</td>
</tr>
<tr>
<td>PSC 245</td>
<td>American Foreign Policy</td>
<td>3</td>
</tr>
<tr>
<td>PSC 250</td>
<td>Politics in Latin America</td>
<td>3</td>
</tr>
<tr>
<td>PSC 343</td>
<td>Aid and Development</td>
<td>3</td>
</tr>
<tr>
<td>PSC 345</td>
<td>Transnational Crime after 9/11</td>
<td>3</td>
</tr>
<tr>
<td>PSC 346</td>
<td>National Security Council</td>
<td>3</td>
</tr>
<tr>
<td>PSC 355</td>
<td>European Union</td>
<td>3</td>
</tr>
<tr>
<td>PSC 360</td>
<td>Political Economy of the Developing World</td>
<td>3</td>
</tr>
<tr>
<td>PSC 370</td>
<td>Domestic Conflicts and Peace</td>
<td>3</td>
</tr>
<tr>
<td>PSC 445</td>
<td>Seminar in European Politics</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major International 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 studying at a foreign university. The Director of the International Relations Program works closely with the Director of International Partnerships and Study Abroad 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; Pontifical Catholic University of Rio de Janeiro and the Universidad Federal Do Rio Grande do Sul (UFRGS) in Porto Alegre, Brazil; La Casa in San Salvador, El Salvador; the Catholic University of Lille, the IÉSEG School of Management of Lille and Paris, and the Ecole de Management of Strasbourg in France; the University of Dortmund, the Catholic University of Eichstaett, and the Berlin School of Economics and Law in Germany; the National University of Ireland in Galway; Lorenzo de’Medici in Florence and Rome in Italy; Sophia University in Japan; the Universidad del Pacifico in Lima, Peru; the University of Oviedo, the Universidad Pontificia Comillas in Madrid, and the Institut Quimic de Sarrià (IQS) of Barcelona in Spain; Sogang University in Seoul, South Korea; 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, Jordan, 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 nine courses at Canisius College. Exceptions to this rule may be approved by the International Relations Program Advisory Council.

Under some circumstances a short-term study abroad experience may be desirable. Recent examples of opportunities available include programs in Argentina, Canada (Québec), Costa Rica, Cuba, France, Puerto Rico, and Spain, among others. Majors interested in these experiences should inquire with the Department of Modern Languages, Literatures, and Cultures (or other sponsoring programs) for more information. Students also may inquire with the Study Abroad Office for summer programs at The Catholic University of Lille, France; IESEG, Paris, France; the Berlin School of Economics and Law, the Catholic University of Eichstaett, and the Technical University of Dortmund in Germany; the National University of Ireland, Galway; Lorenzo de’ Medici in Florence and Rome, Italy; the Universidad de Oviedo and the Universidad Pontificia Comillas in Spain; and the Sacred Heart University in Puerto Rico.

All International Relations majors and minors planning international educational experiences, whether short-term or traditional Study Abroad, must consult in advance with the Study Abroad office, the Director of the International Relations Program, the Chair or Director of all relevant academic programs, and the student’s Associate/Assistant Dean to discuss whether courses completed abroad may satisfy academic requirements at Canisius College. Language credit may be awarded but this requires prior approval from the Department of Modern Languages, Literatures and Culture.

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 (including at least 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, please go to http://www.canisius.edu/international-rel/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>PSC 140</td>
<td>PSC 150</td>
</tr>
<tr>
<td></td>
<td>HIS 107 or HIS 109 or HIS 131</td>
<td>HIS 108 or HIS 110 or HIS 132</td>
</tr>
<tr>
<td></td>
<td>Modern Language at appropriate level</td>
<td>Modern Language at appropriate level</td>
</tr>
<tr>
<td></td>
<td>ECO 101</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>PHI 101</td>
<td>IR Major Elective</td>
</tr>
<tr>
<td></td>
<td>Modern Language 300-level</td>
<td>IR Major Elective</td>
</tr>
<tr>
<td></td>
<td>HIS 399 or PSC 245</td>
<td>IR Major Elective</td>
</tr>
<tr>
<td>Junior</td>
<td>HIS 300</td>
<td>IR Major Elective</td>
</tr>
<tr>
<td></td>
<td>IR Major Elective or 300-400 level Business</td>
<td>IR Major Elective or 300-400 level Business</td>
</tr>
</tbody>
</table>
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, Latin American Studies, and Sociology/Anthropology. 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 intermediate competence in a modern foreign language. Generally this proficiency is demonstrated by successful completion of ML 215.

Major Courses needed for IR Minor

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>Choose one of the three regional history course groupings</td>
<td>6</td>
</tr>
<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 1815</td>
<td>3</td>
</tr>
<tr>
<td>Group 2</td>
<td></td>
<td></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>Group 3</td>
<td></td>
<td></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>
</tbody>
</table>

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: World Cultures Courses
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:
## 2013-2015 World Cultures Courses

| Course | Title                                                                 | Credits |
|--------|                                                                      |---------|
| FRC 433 | Survey of French and Francophone Literature I (In French)            | 3       |
| FRC 434 | Survey of French and Francophone Literature II (In French)           | 3       |
| FRC 437 | Francophone History and Culture in Film I (In French)                 | 3       |
| FRC 439 | Francophone History and Culture in Film II (In French)                | 3       |
| FRC 451 | French Seminar and Special Topics                                     | 3       |
| FRC 453 | War and Memory (In French)                                            | 3       |
| GER 451 | German Seminar and Special Topics                                     | 3       |
| GER 453 | German Literature Since 1945 (In German)                              | 3       |
| GER 455 | The Weimar Republic: Culture and Literature (In German)               | 3       |
| GER 461 | Germany Before Unification (In German)                                | 3       |
| GER 462 | Germany Today (In German)                                             | 3       |
| GER 472 | Contemporary German Film (In German)                                 | 3       |
| GER 473 | German Literature and Film (In German)                               | 3       |
| HIS 226 | History of Ireland                                                    | 3       |
| HIS 227 | The Irish Story                                                       | 3       |
| HIS 331 | The British Monarchy                                                  | 3       |
| HIS 344 | Imperial Russia                                                       | 3       |
| HIS 355 | Chinese Culture and Civilization before 1900                         | 3       |
| HIS 358 | Traditional Japan                                                     | 3       |
| HIS 387 | Representations of the Holocaust in Literature, Film, Music, and Art | 3       |
| HIS 487 | Representations of the Holocaust in Literature and Film               | 3       |
| HON 219 | African Ethics & Christianity                                          | 3       |
| HON 248 | Religions of the East                                                 | 3       |
| HON 357 | Global Pentecostalism                                                 | 3       |
| PHI 271 | Philosophy of Human Rights                                            | 3       |
| PHI 286 | Latin American Philosophy                                             | 3       |
| RST 220 | Introduction to Eastern Religions                                     | 3       |
| RST 222 | African Religions                                                     | 3       |
| RST 224 | Islam: Tradition and Revival                                          | 3       |
| RST 228 | Introduction to Mahayana Buddhism                                    | 3       |
| RST 327 | Modern Global Christianity                                            | 3       |
| RST 331 | Religious China                                                       | 3       |
| RST 362 | Fundamentalism                                                        | 3       |
| RST 421 | Hinduism                                                              | 3       |
| SPA 404 | Issues in the Spanish-Speaking World (In Spanish)                     | 3       |
| SPA 420 | Spanish Contemporary Essay (In Spanish)                               | 3       |
| SPA 439 | The Plantation Islands (In Spanish)                                   | 3       |
| SPA 436 | Detective Fiction: Murderous Seduction (In Spanish)                   | 3       |
| SPA 453 | Almodóvar and La Movida: The Films of Pedro Almodóvar and After       | 3       |
| SPA 455 | Spanish Short Fiction (In Spanish)                                    | 3       |
| SPA 456 | Cuban Cinema of the Revolution (In Spanish)                           | 3       |
| SPA 459 | Sexuality as Political Discourse in Latin America and Spain (In Spanish) | 3     |
| SPA 460 | Lorca and his Époque                                                  | 3       |
| SPA 463 | Magic Realism: Latin America and the Boom (In Spanish)                | 3       |
Journalism

**Director:** Robert Kaiser

**Introduction**
The Communication Studies Department’s major in journalism integrates deep, socially responsible reporting and writing with appropriate digital media. Students seeking a Bachelor of Science degree in journalism tell true stories across print, broadcast, online and mobile platforms. In keeping with the trend toward media convergence, they think visually, use social media to report and promote stories and design multimedia publications.

For additional information on the journalism major please go to http://www.canisius.edu/journalism/index.dot

**Learning Goals and Objectives**
For learning goals and objectives please go to http://www.canisius.edu/journalism/learning-goals-objectives/

**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 Curriculum**
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

**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>JRN 200</td>
<td>Multimedia Storytelling I</td>
<td>3</td>
</tr>
<tr>
<td>JRN 201</td>
<td>Multimedia Storytelling II</td>
<td>3</td>
</tr>
<tr>
<td>COM 203</td>
<td>Writing for the Public Media (Writing Intensive Attribute)</td>
<td>3</td>
</tr>
<tr>
<td>JRN 301</td>
<td>News Gathering/Reporting I</td>
<td>3</td>
</tr>
<tr>
<td>JRN 302</td>
<td>News Gathering/Reporting II</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>
</tr>
<tr>
<td>COM 351</td>
<td>Media Ethics (Ethics Attribute)</td>
<td>3</td>
</tr>
<tr>
<td>JRN 490</td>
<td>Capstone</td>
<td>3</td>
</tr>
</tbody>
</table>

**Major Electives**
Five elective courses from those below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRN 302</td>
<td>News Gathering/Reporting II</td>
<td>3</td>
</tr>
<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>
</tr>
<tr>
<td>JRN 342</td>
<td>Narrative Journalism</td>
<td>3</td>
</tr>
<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>
<tr>
<td>JRN 380</td>
<td>Special Topics in Journalism</td>
<td>3</td>
</tr>
<tr>
<td>JRN 450</td>
<td>Entrepreneurial Journalism</td>
<td>3</td>
</tr>
<tr>
<td>JRN 491/492/493/494</td>
<td>Video Institute I, II, III, IV</td>
<td>3</td>
</tr>
<tr>
<td>COM 205</td>
<td>Mass Communication and Society (Field 5- Social Sciences)</td>
<td>3</td>
</tr>
<tr>
<td>COM 325</td>
<td>Media Literacy</td>
<td>3</td>
</tr>
<tr>
<td>COM 361</td>
<td>Introduction to Television Production</td>
<td>3</td>
</tr>
</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.

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>JRN 200 (3)</td>
<td>COM 203-A* (3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JRN 201 (3)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>JRN 301 (3)</td>
<td>JRN 302 (3)</td>
</tr>
<tr>
<td></td>
<td>Elective</td>
<td>Elective</td>
</tr>
<tr>
<td>Junior</td>
<td>JRN 310**, (3)</td>
<td>COM 351 (3)</td>
</tr>
<tr>
<td></td>
<td>JRN 311**, (3)</td>
<td>Elective</td>
</tr>
<tr>
<td>Senior</td>
<td>Elective</td>
<td>JRN 490 (3)</td>
</tr>
</tbody>
</table>

*Journalism majors should take Section A of this course

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 curriculum 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: 2013-2015

Journalism Major Required Courses

JRN 200 Multimedia Storytelling I 3 credits
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. Co-requisite: COM 203-A or permission of instructor

COM 203 A Writing for the Public Media 3 credits
Intensive writing assignments employing message-design principles provide opportunities to prepare news, features, press releases, advertising copy and opinion pieces. (Writing Intensive Attribute) Co-requisite: JRN 200 or permission of instructor

JRN 201 Multimedia Storytelling II 3 credits
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. Prerequisite: JRN 200, COM 203-A or permission of instructor

JRN 301 News Gathering/Reporting I 3 credits
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, crowd sourcing) 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. Prerequisite: COM 203-A, JRN 200 or permission of instructor

JRN 302 News Gathering/Reporting II 3 credits
Advanced study and practice of all aspects of journalism addressed in News Gathering/Reporting I. Prerequisite: COM 203-A, JRN 200, JRN 201, JRN 301 or permission of instructor

JRN 310 Journalism I 3 credits
Focuses on the initial stages of multimedia story production. Students conceptualize deep, cross-platform stories, laying the groundwork for focused, meaningful journalism that goes beyond merely conveying the facts to making sense of them. This course is to be taken in sequence with JRN 311. Prerequisites: COM 203-A, JRN 200, JRN 201, JRN 301 or permission of instructor

JRN 311 Journalism II 3 credits
Focuses on the final stages of deep multimedia story production. Students deepen and enrich already focused story concepts with an appropriate mix of digital media and publish their stories in an online magazine of the program. This course is to be taken in sequence with JRN 310. Prerequisites: COM 203-A, JRN 200, JRN 201, JRN 301, JRN 310 or permission of instructor

COM 351 Media Ethics 3 credits
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 credits
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. Prerequisites: COM 203-A, JRN 200, JRN 201, JRN 301, JRN 302, COM 351, JRN 310, JRN 311 or permission of instructor
Elective Courses:

**JRN 322 Feature/Magazine Writing** 3 credits
Profiles and other human-interest features developed for newspapers, magazines, broadcast. Freelance writing is introduced.

**JRN 336 Sports Journalism** 3 credits
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 credits
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, reporting, researching and writing long-form journalism while working on a literary nonfiction project of their own.

**JRN 363 Journalistic Editing** 3 credits
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 layout pages using pagination software.

**JRN 369 Television Features** 3 credits
Design, write and produce special feature reports, multiple-part series, investigative stories and mini-documentaries. Emphasis on field work.
Latin American Studies

Director: M. Fernanda Astiz, PhD

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/latin-american/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/latin-american/learning-goals-objectives/

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 http://www.canisius.edu/academics/core
• 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 217 or its equivalent;
• The Program Director can 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 allow a lower level of coursework in Portuguese to fulfill this requirement (e.g., if combined with a study abroad in Brazil).
• Study Abroad Requirement: an approved short term or semester-long program in Latin America or the Caribbean;
• 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; students must choose to take one of each of the following two academic disciplines:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS 131</td>
<td>Latin American History to 1800</td>
</tr>
<tr>
<td>HIS 132</td>
<td>Latin American History since 1800</td>
</tr>
<tr>
<td>PSC 150</td>
<td>Introduction to Comparative Politics and Government</td>
</tr>
<tr>
<td>PSC 250</td>
<td>Politics in Latin America</td>
</tr>
</tbody>
</table>

The third course must be taken from any of the following academic departments/disciplines: Business, Education, History, Political Science and Honors.
Language, Literature, and Culture – 3 courses
• Must be taken at Canisius from at least two of the following academic departments/disciplines: MLLC, RST, PHI, FAH, FAM, and Honors.

Major Electives – 3 courses
• May be taken in any discipline and/or 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;
• Will be used for assessment of student learning in the major.

B. The Minor
General Requirement:
• Modern Language Requirement: At least a C in SPA 217.

Six Required Courses
Social Science & History – 3 courses
• Must be taken from at least two of the following academic departments/disciplines: Business, Education, History, Political Science and Honors.
• Language, Literature, and Culture – 3 courses.
• Must be taken from at least two of the following academic departments/disciplines: MLLC, RST, PHI, FAH, FAM, and Honors.

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.
Chair: Gordon W. Meyer, PhD

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 focuses on accomplishing organizational objectives through the coordination of people and other resources, and involves such activities 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 a 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 complex and changing environments. 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 and a variety of academic minors. With 11 full-time faculty, the department is one of the largest in the Richard J. Wehle School of Business. The department also offers a wide variety of co-curricular programs including student chapters of professional organizations, internships and research opportunities. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/management/index.dot

Management Major
The Management major provides students with a balanced education to prepare them for a variety of important organizational roles. The curriculum includes basic coursework in quantitative analytical methods, operations management, behavioral science and human resource management 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.

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/management/learning-goals-objectives/

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 to discuss career expectations, choose their major electives, develop their entire academic program and plan their co-curricular academic experiences.

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

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 Course Requirements: (20 or 21 courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 105 and MAT 106 or MAT 111 or MAT 115</td>
<td>Finite Mathematics, Calculus for the Non-Sciences, Calculus I, Calculus for Business I</td>
<td>3, 3, 4, 4</td>
</tr>
<tr>
<td>Free Elective</td>
<td>ACC 201 Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
<td>ACC 202 Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
<td>ECO 101 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
<td>ECO 102 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
<td>ECO 225 Business Statistics I</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
<td>ECO 256 Business Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
<td>FIN 201 Introduction to Finance</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
<td>ISB 101 Management Technology</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
<td>MGT 101 Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
<td>MGT 370 Managerial Environment</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
<td>MGT 446 Managerial Policy/Strategy</td>
<td>3</td>
</tr>
<tr>
<td>Free Elective</td>
<td>MKT 201 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>Management major:</td>
<td>MGT 335 Management Science</td>
<td>3</td>
</tr>
<tr>
<td>Management major:</td>
<td>MGT 336 Production/Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>Management major:</td>
<td>MGT 360 Organizational Behavior</td>
<td>3</td>
</tr>
<tr>
<td>Management major:</td>
<td>MGT 364 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 not for credit).

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.

Dual Majors including Management
The department also offers a variety of dual majors including those in Marketing and Management and in Management and a modern language. For more information about these programs, students should consult their department advisor.

Minor in Industrial/Organizational Psychology
This interdisciplinary program, which is open to management majors, combines management and psychology courses. See your advisor or the information under Psychology in the college catalog 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 arrangement with both workplace and faculty supervision. Many are paid. Students completing 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 a very 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 Management 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 credits)</td>
<td>ENG 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>MAT 105 (3 credits) or MAT 111 (4 credits) or MAT 115 (4 credits)</td>
<td>MAT 106 (3 credits) or Free Elective if MAT 115/111</td>
</tr>
<tr>
<td></td>
<td>RST 101 (3 credits)</td>
<td>PHI 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ECO 101 (3 credits) (Field of Knowledge Social Science)</td>
<td>ECO 102 MICRO (3 credits)</td>
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<td></td>
<td>ISB 101 (3 credits)</td>
<td>MGT 101 (3 credits)</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Sophomore</th>
<th>MKT 201 (3 credits)</th>
<th>FIN 201 (3 credits)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>ACC 201 (3 credits)</td>
<td>ACC 202 (3 credits)</td>
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<tr>
<td></td>
<td>Field of Knowledge</td>
<td>Field of Knowledge</td>
</tr>
<tr>
<td></td>
<td>ECO 255 (3 credits) (Field of Knowledge Math)</td>
<td>ECO 256 STATS 2 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Business International Requirements (Two semester sequence required)</td>
<td>Business International Requirements (Two semester sequences required)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Junior</th>
<th>MGT 335 (3 credits)</th>
<th>MGT Elective</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MGT 336 (3 credits)</td>
<td>MGT 364 Human Resources (3 credits) (Spring Only)</td>
</tr>
<tr>
<td></td>
<td>MGT 360 (3 credits) (Fall only)</td>
<td>Arts and Sciences Elective</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge</td>
<td>Field of Knowledge</td>
</tr>
<tr>
<td></td>
<td>Field of Knowledge (PHI, Ethics attribute)</td>
<td>Arts and Sciences Elective</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Senior</th>
<th>MGT 370 (3 credits)</th>
<th>MGT 446 (3 credits)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MGT Elective</td>
<td>MGT Elective</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td></td>
<td>Arts and Sciences Elective</td>
<td>Arts and Sciences Elective</td>
</tr>
<tr>
<td></td>
<td>Core Capstone</td>
<td>Free Elective</td>
</tr>
</tbody>
</table>

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1. Two semesters of foreign 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:

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 beyond the normal 120 credit hours to complete. 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.

Non-business majors must take MGT 101 Introduction to Management and ECO 255 Business Statistics prior to beginning some of the minors.

Global Logistics and Supply Chain Management (GLSCM) Minor
Effective Supply Chain Management requires the integrated management of the set of value-added activities from product development through material procurement from vendors and manufacturing and distribution of the good to the final customer. Global Logistics is one of the sectors designated by the State of New York as critical to the economic development of Western New York.

MGT 335 or MGT 336 are prerequisites for many of the elective courses and should be completed by the end of the junior year.

<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 or MGT 325</td>
<td>Production/Operations Management (Management Majors)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 440 or MKT 478</td>
<td>Global Supply Chain Management</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</td>
<td>Doing Business in Latin America</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 Logistics and Supply Chain Management</td>
<td>3</td>
</tr>
</tbody>
</table>
MGT 492 | Internship in Global Logistics and Supply Chain Management | 3
ACC 307 | Management Accounting | 3
ACC 452 | Enterprise Systems | 3

Students in the GLSCM minor are expected to become members of the Canisius Chapter of APICS – The Association of Operations Management.

The Human Resource Management Minor
Organizations and employees both benefit when Human Resource Management (HRM) functions are carried out professionally. There is a need for individuals who know how to match what people can bring to the organization with organizational requirements, incentives, and culture. Human Resource Management professionals work with employees to help them develop their potential. They also are responsible for monitoring and adjusting workplace policies and practices to make sure they are fair and transparent.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses – Complete the following three courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGT 360</td>
<td>Organizational Behavior (Fall only)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 364</td>
<td>Human Resource Management (Spring only)</td>
<td>3</td>
</tr>
<tr>
<td>ENT 411</td>
<td>Entrepreneurial and Management Leadership Skills (Fall only)</td>
<td>3</td>
</tr>
</tbody>
</table>

Minor Elective Courses – Complete three of the following (at least one in COM and one in PSY):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 204</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>COM 302</td>
<td>Small Group Communication (Fall only)</td>
<td>3</td>
</tr>
<tr>
<td>COM 318</td>
<td>Organizational Communication (Fall only)</td>
<td></td>
</tr>
<tr>
<td>COM 319</td>
<td>Training and Development (Spring only)</td>
<td>3</td>
</tr>
<tr>
<td>MGT 307</td>
<td>U.S. Business History (not offered every academic year)</td>
<td>3</td>
</tr>
</tbody>
</table>

MGT 367 | Labor and Employee Relations (not offered every academic year) | 3
MGT 464 | Current Topics in Human Resource Management (not offered every academic year) | 3
MGT 493 | Internship in Human Resource Management | 3
PSY 329 | Leadership and Motivation (Spring only) | 3
PSY 395 | Assessment in the Behavioral Sciences (Fall only) | 3

Students in the Human Resource Management minor are expected to become members of the Canisius Chapter of the Society for Human Resource Management (SHRM) and/or student members of the Buffalo Chapter of the Labor Employment Relations Association (LERA).

International Management Minor
In light of the internationalization of today’s business environment, this minor enables students to acquire knowledge and competence in the practice of management on the global stage.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses – Complete the following two courses:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IBUS 301</td>
<td>Fundamentals of International Business</td>
<td>3</td>
</tr>
<tr>
<td>MGT 472</td>
<td>Comparative Management Systems</td>
<td>3</td>
</tr>
</tbody>
</table>

Minor Elective Courses – Complete three of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECO 460</td>
<td>International Trade</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>IBUS 495</td>
<td>Internship in International Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 438</td>
<td>Entry Strategies for Emerging Markets</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.

**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 Operations Management (APICS). APICS certification should significantly improve a student’s employment prospects.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 440</td>
<td>Global Supply Chain Management</td>
<td>3</td>
</tr>
<tr>
<td>MGT 475</td>
<td>Doing Business in Latin America</td>
<td>3</td>
</tr>
<tr>
<td>MGT 476</td>
<td>Doing Business in Mexico</td>
<td>3</td>
</tr>
<tr>
<td>MKT 478</td>
<td>Global Logistics</td>
<td>3</td>
</tr>
</tbody>
</table>

Required Courses – Complete the following three courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT 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 336</td>
<td>Production/Operations Management (Management Majors)</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGT 325</td>
<td>Operations Analysis for Business (Non-management Majors)</td>
<td>3</td>
</tr>
</tbody>
</table>

Elective Courses – Complete three of the following:

<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>

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>
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</thead>
<tbody>
<tr>
<td>MKT 101</td>
<td>Introduction to Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 201</td>
<td>Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>MGT 325</td>
<td>Operations Analysis for Business (has ECO 255 Business Statistics I prerequisite)</td>
<td>3</td>
</tr>
<tr>
<td>PHI 242</td>
<td>Ethical Issues in Business</td>
<td>3</td>
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<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGT 370</td>
<td>Managerial Environment (with permission of instructor)</td>
<td>3</td>
</tr>
</tbody>
</table>

MKT 335 Management Science and MGT 336 Production/Operations Management are prerequisites 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 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 Management department chair) (6 credits)

TOTAL (6 courses) (18 credits)

Management Courses: 2013- 2015

Required Courses For Management and/or Other Business Majors

MGT 101 Introduction to Management 3 credits
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 credits
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: ECO 255, or other acceptable statistics courses. This is NOT a MGT elective. Fall and Spring

MGT 335 Management Science 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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: Senior status and MGT 101. Fall and Spring

MGT 446 Managerial Policy/Strategy 3 credits
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 3 credits
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 relation, 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. Elective. Occasional Fall or Spring
MGT 334 Strategic Sourcing  3 credits
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. Occasional Fall or Spring

MGT 350 Strategic Sustainable Development  3 credits
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. Elective. Occasional Fall or Spring

MGT 367 Employee and Labor Relations  3 credits
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. Occasional Spring or Fall

MGT 380 International Business Seminar  3 credits
This course offers short-term seminars in Europe or China, either in the winter between the fall and spring semesters or in the summer. Winter trips are typically two-and-one-half weeks and summer trips are typically three weeks. The seminars give exposure to the international business environment and to business practices outside of the USA. There are readings, discussions, and a substantial paper required. Prerequisites: Open to upper-level business majors and to others with instructor approval. Depending on the specific seminar the costs range from approximately $4500.00 to $7500.00 in addition to normal tuition for the 3 credit hour course. Elective. Fall, Spring or Summer

MGT 430 Sustainability and Supply Chains  3 credits
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. Occasional Fall or Spring

MGT 434 Technology Management  3 credits
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  3 credits
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  3 credits
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 438 Entry Strategies in Emerging Markets  3 credits
This course examines global corporate entrepreneurship and the process through which established companies identify, launch, and manage the entry of existing products into geographic markets where the companies do not currently compete. We will also look at "emerging giants" — entrepreneurial firms in emerging markets that have grown to become multinationals. The course examines the differences between emerging markets and mature markets, as well as differences among emerging markets. The objective is to understand how these issues affect business opportunities in different emerging markets and why these efforts often fail. Prerequisite: ECO 101 & 102, MGT 101. May be used as ENT, MGT or IBUS elective.
MGT 439 Operations Planning and Control 3 credits
Series of topics designed to target the professional certification examinations in supply chain management conducted by APICS –The Association of Operations Managements. Prerequisite: MGT 336. Elective. Fall or Spring

MGT 440 Global Supply Chain Management 3 credits
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 3 credits
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. Occasional Fall or Spring

MGT 472 Comparative Management Systems 3 credits
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 474 Doing Business in Canada 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 492 Internship in Global Supply Chain Management 3 credits
Elective. Fall and Spring

MGT 493 Internship in Human Resource Management 3 credits
Elective. Fall and Spring
MGT 494 Internship in Technology/Operations Management 3 credits
Elective. Fall and Spring

MGT 495 Internship in International Management 3 credits
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 3 credits
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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ENT 311</td>
<td>Entrepreneurship and Family Business (Fall only)</td>
<td>3</td>
</tr>
<tr>
<td>ENT 401</td>
<td>Small Business Management and Entrepreneurship (Fall only)</td>
<td>3</td>
</tr>
<tr>
<td>ENT 402</td>
<td>New Venture Creation (Spring only)</td>
<td>3</td>
</tr>
<tr>
<td>ENT 411</td>
<td>Entrepreneurial and Managerial Leadership Skills Development (Fall only)</td>
<td>3</td>
</tr>
<tr>
<td>ENT 414</td>
<td>Franchising and Entrepreneurship</td>
<td>3</td>
</tr>
<tr>
<td>ISB 302</td>
<td>Sustainability and System Dynamics</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>
Chair: Edward J. Garrity, PhD

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/marketing/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/marketing/learning-goals-Objectives/

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 Requirement
All students complete Core Curriculum requirements as part of their overall Canisius education. These Requirements can be found at http://www.canisius.edu/academics/core/

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

Major Course Requirements: (20 or 21 Courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 105 and MAT 106 or MAT 111 or MAT 115 and Free Elective</td>
<td>Finite Mathematics or Calculus for the Non-Sciences or Calculus I or Calculus for Business I</td>
<td>3 or 3 or 4 or 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 Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102</td>
<td>Principles of Macroeconomics</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</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>MKT 320</td>
<td>Consumer Behavior</td>
<td>3</td>
</tr>
<tr>
<td>MKT 331</td>
<td>Fundamentals of Marketing Research</td>
<td>3</td>
</tr>
<tr>
<td>MKT 401</td>
<td>Cases in Marketing Management</td>
<td>3</td>
</tr>
<tr>
<td>MKT 375</td>
<td>International Marketing</td>
<td>3</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.

Major Experiences

The curriculum for marketing majors is designed to give students a breadth of knowledge in a variety of business functions as well as a depth of understanding in traditional marketing areas. Marketing electives can be used by students to pursue specific topics based on their interests or career aspirations. All students are strongly encouraged to become involved in the Canisius College American Marketing Association (CCAMA) beginning in their freshman year. This organization offers important extracurricular programs designed to connect students with the business community and help them develop a greater understanding of how marketing concepts are applied in the business world. Participation in this organization is an essential part of your preparation for professional life. Connect with CCAMA on Facebook: http://tiny.cc/ccama

Additional Course Considerations

Internships qualifying for three hours of academic credit are available to upper-division students majoring in 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.
### Recommended Semester Schedule for Marketing Major

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Freshman</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FYS 101 (3 credits)</td>
<td>ENG 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>MAT 105 (3 credits)</td>
<td>MAT 106 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>or MAT 115 (4 credits)</td>
<td>MAT 115/111</td>
</tr>
<tr>
<td></td>
<td>or MAT 111 (4 credits)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RST 101 (3 credits)</td>
<td>PHI 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ECO 101 MACRO (3 credits)</td>
<td>ECO 102 MICRO (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ISB 101 (3 credits)</td>
<td>MGT 101 (3 credits)</td>
</tr>
<tr>
<td><strong>Sophomore</strong></td>
<td>MKT 201 (3 credits)</td>
<td>FIN 201 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ACC 201 (3 credits)</td>
<td>ACC 202 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>History Field 4</td>
<td>Arts Field 3</td>
</tr>
<tr>
<td></td>
<td>ECO 255 (3 credits)</td>
<td>ECO 256 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Business International Requirement</td>
<td>Business International Requirement (2 semester sequence required)</td>
</tr>
<tr>
<td></td>
<td>(Two semesters of language or approved regional studies)*</td>
<td></td>
</tr>
<tr>
<td><strong>Junior</strong></td>
<td>MKT 320 (3 credits)</td>
<td>MKT 331 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>MGT 325 (3 credits)</td>
<td>MGT 375 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Religious Studies Field 1</td>
<td>MGT 370 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Science Field 6</td>
<td>Philosophy Field 2 (Ethics required)</td>
</tr>
<tr>
<td></td>
<td>A and S Elective</td>
<td>A and S Elective</td>
</tr>
</tbody>
</table>

*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
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 information systems or 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.

### Marketing/Information Systems dual Major
Department of Marketing & Information Systems
Class of 2011 and Beyond

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Freshman</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>FYS 101 Freshman Year Seminar</td>
<td>ENG 101 English Seminar I</td>
</tr>
<tr>
<td></td>
<td>MAT 105 or MAT 115 or MAT 111</td>
<td>MAT 106 or Arts and Science Elective if MAT 115/111</td>
</tr>
<tr>
<td></td>
<td>RST 101 Intro to Religious Studies</td>
<td>PHI 101 Intro to Philosophy</td>
</tr>
<tr>
<td></td>
<td>ECO 101 Principles of Macroeconomic (field 5)</td>
<td>ECO 102 Principles of Microeconomics</td>
</tr>
<tr>
<td></td>
<td>ISB 101 Management Technology</td>
<td>MGT 101 Introduction to Management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Senior</th>
<th>MKT 401 (3 credits)</th>
<th>MGT 446 (3 credits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT Elective</td>
<td>MGT Elective</td>
<td></td>
</tr>
<tr>
<td>A and S Elective</td>
<td>Free Elective</td>
<td></td>
</tr>
<tr>
<td>Core Capstone</td>
<td>Free Elective</td>
<td></td>
</tr>
<tr>
<td>A and S Elective</td>
<td>Free Elective</td>
<td></td>
</tr>
</tbody>
</table>
### Sophomore
- **MKT 201**: Principles of Marketing
- **FIN 201**: Introduction to Finance
- **ACC 201**: Financial Accounting
- **ISB 205**: Management Software (ISB 101)
- **ECO 255**: Business Statistics I
- **Business International Requirement**: (Language or Approved Regional Studies)
- **Summer Session, A & S elective**

### Junior
- **MKT 320**: Consumer Behavior
- **MKT 331**: Market Research
- **MGT 325**: Operations Analysis
- **MKT 375**: International Marketing
- **ISB 340**: Data Management
- **Natural Science Field of Knowledge 6**
- **Religious Studies Field of Knowledge 1**
- **Summer Session, A & S elective**

### Senior
- **MKT 401**: Marketing Cases
- **MKT/ISB Elective**
- **Arts Field of Knowledge 3**
- **MGT 446**: Managerial Policy/Strategy
- **MGT 370**: Managerial Environment
- **ISB 475**: Systems Analysis and Design
- **ISB 350**: Networking (ISB 205)
- **A&S Elective**

### Attributes

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Can be fulfilled using a variety of courses including Field of Knowledge courses and electives with attribute designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Justice</td>
<td>A&amp;S course or ISB 302</td>
</tr>
<tr>
<td>Ethics</td>
<td>Field of Knowledge 2 suggested</td>
</tr>
<tr>
<td>Diversity</td>
<td></td>
</tr>
<tr>
<td>Global Awareness</td>
<td>MGT 375 will satisfy this requirement.</td>
</tr>
<tr>
<td>Advanced Writing Intensive</td>
<td>Must be at the 200-level or above</td>
</tr>
<tr>
<td>Oral Communication Skills</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** All students must complete a total of 60 hours of Arts and Science courses. We strongly recommend that all students run a Griff Audit to check for this and any other additional requirements.

**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 Associate Dean.

**Ethics required of all students; **Dual majors are encouraged to take ISB 205 first.
### Marketing Courses: 2013 - 2015

**Required Courses For Marketing Majors**

**MKT 201 Principles of Marketing** 3 credits  
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** 3 credits  
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.  
*Spring*

**MKT 331 Fundamentals of Marketing Research** 3 credits  
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 375 International Marketing** (formerly MKT 475) 3 credits  
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. Global Awareness attribute.  
*Spring*

**MKT 401 Cases in Marketing Management** 3 credits  
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.

**MKT 351 Sales Management** 3 credits  
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** 3 credits  
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** 3 credits  
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 Foundation** 3 credits  
Explore the power of social media as a marketing tool. This course will help students learn about a variety of social media strategies and tactics. Discover how companies use Facebook, Twitter, Blogs, Social Gaming and other social media tools to build relationships with customers and engage target audiences. *(counts as MKT and ISB elective for dual majors)* Prerequisites: MKT 201. Elective

**MKT 396 Promotion / Advertising** 3 credits  
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 397 Search Marketing: SEO & PPC 3 credits
Search Engine Marketing (SEM) has become one of the most important marketing strategies for business organizations. SEM involves a variety of techniques designed to increase a company’s visibility on popular search engines like Google, Yahoo, and Bing. The course will cover Search Engine Optimization (SEO) strategies involving website development and web analytics as well as Pay-Per-Click (PPC) strategies using advertising programs like Google Adwords. As companies increasingly compete to drive customers to their websites, the skills covered in the course are becoming essential for modern marketing professionals and web designers. Prerequisites: MKT 201 (may be used as a MKT or ISB elective)

MKT 445 Marketing Strategy Game 3 credits
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

Digital Marketing (MKT 450): This course aims to provide students with insight on how modern industry is adopting new emerging media and technologies as marketing tools. In this course, many innovative and evolutionary technologies/media will be introduced, such as blogs, mobile media, in-game advertising, virtual reality, hologram, touchscreen, social media, information kiosk in retail setting, including evolved formats of traditional media (e.g., 3-D TV, HD radio, digital outdoor media). This course includes e-buyer behavior, theoretical understandings, and case studies describing how diverse new media/technologies are adopted in business. In addition, this course will deal with ethical issues that can be found in the adoption of these diverse emerging media from the perspectives of both consumers and practitioners. The ultimate goal of this course is to familiarize students with the vocabulary/concepts, to teach practical knowledge from actual examples of technological adoptions, and finally to provide students with more future-oriented perspectives in understanding marketing strategies. (counts as MKT and ISB elective for dual majors) Prerequisite: MKT 201.

MKT 471 Doing Business in Emerging Markets 3 credits
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. Prerequisite: MKT 201. Elective

MKT 472 Doing Business in Asia 3 credits
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 3 credits
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 375. Elective

MKT 478 Global Logistics 3 credits
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 3 credits
See MGT 496 for description.

MKT 497 FIT Internship 15 credits
For students in the Fashion Institute of Technology program. Prerequisite: Approval of chair or FIT coordinator.
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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/info-systems/index.dot

LEARNING GOALS AND OBJECTIVES

For learning goals and objectives please go to http://www.canisius.edu/info-systems/learning-goals-objectives/

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 CURRICULUM

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

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>ISB 205</td>
<td>Management Software</td>
<td>3</td>
</tr>
<tr>
<td>ISB 211</td>
<td>Visual Programming for Business</td>
<td>3</td>
</tr>
<tr>
<td>ISB 340</td>
<td>Data Management</td>
<td>3</td>
</tr>
<tr>
<td>ISB 350</td>
<td>Networking</td>
<td>3</td>
</tr>
<tr>
<td>ISB 455</td>
<td>ECommerce</td>
<td>3</td>
</tr>
<tr>
<td>ISB 475</td>
<td>Systems Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>ISB 302</td>
<td>Sustainability &amp; System Dynamics</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 480</td>
<td>IT Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>
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

<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>FYS 101 (3)</td>
<td>ENG 101 (3)</td>
<td></td>
</tr>
<tr>
<td>MAT 105 (3) or MAT 111 (4) or MAT 115 (4)</td>
<td>MAT 106 (3) or Free Elective if MAT 111 or MAT 115 taken</td>
<td></td>
</tr>
<tr>
<td>RST 101 (3) or ISB 101 (3)</td>
<td>ECO 102 (3)</td>
<td></td>
</tr>
<tr>
<td>ECO 101 Macro (3) (Social Sciences field)</td>
<td>ISB 101 (3) or RST 101 (3)</td>
<td></td>
</tr>
<tr>
<td>Business International Requirement¹</td>
<td>Business International Requirement²</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>ISB 205 (3)</td>
<td>ISB 211 (3)</td>
</tr>
<tr>
<td>ACC 201 (3)</td>
<td>ACC 202 (3)</td>
<td></td>
</tr>
<tr>
<td>ECO 255 Stats 1 (3)</td>
<td>ECO 256 Stats 2 (3)</td>
<td></td>
</tr>
<tr>
<td>Field of Knowledge</td>
<td>MGT 101 (3)</td>
<td></td>
</tr>
<tr>
<td>PHI 101 (3)</td>
<td>Field of Knowledge</td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>ISB 340 (3)</td>
<td>ISB Elective</td>
</tr>
<tr>
<td>FIN 201 (3)</td>
<td>A and S Elective</td>
<td></td>
</tr>
<tr>
<td>MKT 201 (3)</td>
<td>MGT 325 (3)</td>
<td></td>
</tr>
<tr>
<td>Field of Knowledge</td>
<td>A and S Elective</td>
<td>MGT 370</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.
The IS Minor consists of five courses as follows:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB 205 or ISB 211 and ISB 340</td>
<td>Management Software</td>
</tr>
<tr>
<td>ISB 205</td>
<td>Visual Programming for Business</td>
</tr>
<tr>
<td>ISB 340</td>
<td>Data Management</td>
</tr>
</tbody>
</table>

Select 3 of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB 302</td>
<td>Sustainability &amp; System Dynamics</td>
</tr>
<tr>
<td>ISB 350</td>
<td>Networking</td>
</tr>
<tr>
<td>ISB 455</td>
<td>ECommerce</td>
</tr>
<tr>
<td>ISB 460</td>
<td>Computer Forensics</td>
</tr>
<tr>
<td>ISB 470</td>
<td>Cyber Security</td>
</tr>
<tr>
<td>ISB 480</td>
<td>IT Project Management</td>
</tr>
</tbody>
</table>

The Inter-Disciplinary Minor in Computer Forensics consists of six courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRJ 227</td>
<td>Criminal Justice I</td>
</tr>
<tr>
<td>CRJ 228</td>
<td>Criminal Justice II</td>
</tr>
<tr>
<td>ISB 350</td>
<td>Networking</td>
</tr>
<tr>
<td>ISB 460</td>
<td>Computer Forensics</td>
</tr>
<tr>
<td>ISB 470</td>
<td>Cyber Security</td>
</tr>
</tbody>
</table>

An ethics course:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 370 or CRJ 482</td>
<td>Managerial Environment or Criminal Justice Ethics (SOC 482)</td>
</tr>
</tbody>
</table>

Information System Courses: 2013 - 2015

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB 101</td>
<td>Management Technology</td>
<td>3</td>
</tr>
<tr>
<td>ISB 205</td>
<td>Management Software</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB 211</td>
<td>Visual Programming for Business</td>
<td>3</td>
</tr>
<tr>
<td>ISB 340</td>
<td>Data Management</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB 302</td>
<td>Sustainability &amp; System Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ISB 350</td>
<td>Networking</td>
<td>3</td>
</tr>
</tbody>
</table>

An introduction to systems thinking and system dynamics. Uses tools and computer models to help solve interdisciplinary problems including issues of environmental, human and economic sustainability. Using computer-based models or virtual worlds, one can then test the consequences of actions before making actual decisions. Field 5 of Core Curriculum, and justice attribute. Spring, Fall or Summer

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB 340</td>
<td>Data Management</td>
<td>3</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB 350</td>
<td>Networking</td>
<td>3</td>
</tr>
</tbody>
</table>

Digital (data) and voice networks; network hardware, software and protocols. Wired and wireless communication. Prerequisite: ISB 101 or equivalent. Fall

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB 455</td>
<td>ECommerce</td>
<td>3</td>
</tr>
</tbody>
</table>

Fundamentals of E-commerce applications and technologies. Interactive website and or consumer shopping e-commerce design and development. Prerequisite: ISB 340. Spring

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISB 460</td>
<td>Computer Forensics</td>
<td>3</td>
</tr>
</tbody>
</table>

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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
Fall and Spring

ISB 499 Independent Study 3 credits
Fall and Spring
Co-Chairs: Dietrich W. Kuhlmann, PhD; Christine Kinsey, PhD

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/mathematics/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/mathematics/learning-goals-objectives/

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

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>MAT 111</td>
<td>Calculus I</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 222</td>
<td>Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>or MAT 351</td>
<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</td>
<td>4</td>
</tr>
<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 each</td>
</tr>
<tr>
<td>4 additional courses chosen from 300 or 400-level mathematics courses or PHY 335-336</td>
<td>12-16 credits</td>
<td></td>
</tr>
<tr>
<td>One of the following (3 credits)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 312</td>
<td>Topics in Algebra</td>
<td>3</td>
</tr>
<tr>
<td>MAT 322</td>
<td>Topics in Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MAT 352</td>
<td>Probability and Statistics II</td>
<td>3</td>
</tr>
<tr>
<td>Option B (Mathematics with a concentration in another area)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAT 111</td>
<td>Calculus I</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 222</td>
<td>Differential Equation</td>
<td>4</td>
</tr>
<tr>
<td>or MAT 351</td>
<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</td>
<td>4</td>
</tr>
<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 each</td>
</tr>
</tbody>
</table>
2 additional courses chosen from 300 or 400-level mathematics courses or PHY 335-336

One of the following (3 credits)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 312</td>
<td>3</td>
</tr>
<tr>
<td>MAT 322</td>
<td>3</td>
</tr>
<tr>
<td>MAT 352</td>
<td>3</td>
</tr>
</tbody>
</table>

Option C (Statistics)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 111</td>
<td>4</td>
</tr>
<tr>
<td>MAT 112</td>
<td>4</td>
</tr>
<tr>
<td>MAT 211</td>
<td>4</td>
</tr>
<tr>
<td>MAT 219</td>
<td>4</td>
</tr>
<tr>
<td>MAT 222</td>
<td>4</td>
</tr>
<tr>
<td>MAT 230</td>
<td>4</td>
</tr>
<tr>
<td>MAT 321</td>
<td>4</td>
</tr>
<tr>
<td>MAT 322</td>
<td>3</td>
</tr>
<tr>
<td>MAT 311</td>
<td>4</td>
</tr>
<tr>
<td>MAT 351</td>
<td>3</td>
</tr>
<tr>
<td>MAT 352</td>
<td>3</td>
</tr>
<tr>
<td>MAT 380-381-480</td>
<td>1 each</td>
</tr>
</tbody>
</table>

Three of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 341 Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MAT 353 Regression Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MAT 354 Experimental Design and Statistical Computing</td>
<td>3 3</td>
</tr>
<tr>
<td>MAT 365 Logistic Regression</td>
<td>3</td>
</tr>
<tr>
<td>MAT 370 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 (3-3)
Option B: PHY 223-224 General Physics (4-4) or two economics courses (3-3), 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 (3-3)

**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 Courses**

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Option A-B-C</td>
<td>Option A-B-C</td>
</tr>
<tr>
<td>Freshman</td>
<td>Option A-B-C</td>
<td>MAT 112 (4)</td>
</tr>
<tr>
<td></td>
<td>MAT 111 (4)</td>
<td>PHY 223 (4) or ECO course (3)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>Option A-B-C</td>
<td>Option A-B</td>
</tr>
<tr>
<td></td>
<td>MAT 211 (4)</td>
<td>MAT 219 (4)</td>
</tr>
<tr>
<td></td>
<td>MAT 230 (4)</td>
<td>MAT 222 (4) or MAT 351 (3)</td>
</tr>
<tr>
<td></td>
<td>PHY 224 (4) or ECO course (3)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MAT 380-381-480</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MAT 351 (3)</td>
<td>MAT 351 (3)</td>
</tr>
<tr>
<td></td>
<td>Option C</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MAT 219 (4)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MAT 351 (3)</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. Popular double majors with mathematics are economics, computer science, education, and physics, but we have also had students double major in math and music, English, political science, philosophy, Spanish, psychology, pre-medicine, and other fields. Before a student declares a dual major, it is important to meet with the appropriate academic departments for advisement. Many 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.

### Mathematics Minor: (7 courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 111</td>
<td>Calculus I or MAT 115 Calculus for Business</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>
<tr>
<td></td>
<td>Restricted electives: two courses from any one of the following tracks:</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Probability and Statistics</strong></td>
<td></td>
</tr>
<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>3</td>
</tr>
<tr>
<td>MAT 335</td>
<td>Mathematical Analysis for Physicists I</td>
<td>3</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>
<tr>
<td>MAT 342</td>
<td>Graph Theory</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</td>
<td>4</td>
</tr>
<tr>
<td>MAT 312</td>
<td>Topics in Algebra</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</td>
<td>4</td>
</tr>
<tr>
<td>MAT 322</td>
<td>Topics in Analysis</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>Geometry</td>
<td>3</td>
</tr>
</tbody>
</table>

### Mathematic Courses: 2013 - 2015

**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 & 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 & Spring

**MAT 109-110 Calculus with Review I and II**  
4-4 credits  
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, 115 or 117. (Field 7) MAT 109 Fall; MAT 110 Spring

**MAT 111 Calculus I**  
4 credits  
For science and mathematics majors. Functions of 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 & Spring

**MAT 112 Calculus II**  
4 credits  
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 & Spring

**MAT 115 Calculus for Business**  
4 credits  
First of two semesters of mathematics for business students. Differentiation/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**  
3 credits  
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**  
3 credits  
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 & Spring

**MAT 141 Inferential Statistics and Computers for Science**  
4 credits  
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
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAT 150</td>
<td>Mathematics and Politics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>MAT 181</td>
<td>Symmetry</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>MAT 191</td>
<td>Introduction to Discrete Mathematics</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>MAT 211</td>
<td>Calculus III</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>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 &amp; Spring.</td>
<td></td>
</tr>
<tr>
<td>MAT 219</td>
<td>Linear Algebra</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>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 &amp; Spring.</td>
<td></td>
</tr>
<tr>
<td>MAT 222</td>
<td>Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Introduction to the theory and applications of ordinary differential equations. Prerequisite: MAT 211 with minimum grade of C -. Spring.</td>
<td></td>
</tr>
<tr>
<td>MAT 230</td>
<td>Logic, Set Theory, and Proofs</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>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 &amp; Spring.</td>
<td></td>
</tr>
<tr>
<td>MAT 301</td>
<td>History of Mathematics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>MAT 311</td>
<td>Abstract Algebra</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Introduction to the basic structures of abstract algebra; groups, rings, fields. Prerequisites: MAT 230 and MAT 219 with minimum grades of C -. Fall.</td>
<td></td>
</tr>
<tr>
<td>MAT 312</td>
<td>Topics in Algebra</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Continuation of MAT 311. Selected topics from rings, integral domains, field extensions and Galois theory. Prerequisite: MAT 311. Spring 2015.</td>
<td></td>
</tr>
<tr>
<td>MAT 313</td>
<td>Number Theory</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Divisibility, prime numbers, numerical functions, congruencies, quadratic reciprocity, Diophantine equations. Prerequisite: MAT 311 or permission of instructor. On demand.</td>
<td></td>
</tr>
<tr>
<td>MAT 321</td>
<td>Real Analysis</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td>MAT 322</td>
<td>Topics in Analysis</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Continuation of MAT 321. Selected topics from functions of one or several variables. Prerequisite: MAT 321 with minimum grade of C -. Spring 2014.</td>
<td></td>
</tr>
<tr>
<td>MAT 331</td>
<td>Geometry</td>
<td>3</td>
</tr>
<tr>
<td>MAT 341</td>
<td>Numerical Analysis</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
</tbody>
</table>
MAT 342 (CSC 342) Graph Theory 3 credits
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 3-3 credits
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 3 credits
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. Fall 2013

MAT 354 Experimental Design and Statistical Computing 3 credits
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 2014

MAT 355 Logistic Regression 3 credits
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 3 credits
Prerequisite: MAT 352 or permission of instructor. Spring 2014

MAT 380-381-480 Mathematics Seminar 1 credit each
Mathematics seminar for majors. To be taken for three semesters. Prerequisite: Junior standing

MAT 411 Topology 3 credits
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. On demand

MAT 416 Differential Geometry 3 credits
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 3 credits
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. On demand

MAT 498 Internship in Mathematics 1-3 credits
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 3 credits
Prerequisite: Consent of instructor and chair. On demand
MEDICAL LABORATORY SCIENCE

Director: Allyson D. Backstrom, PhD

Introduction
Medical laboratory scientists perform tests to help diagnose and treat disease and maintain wellness. Medical laboratory data is the basis of up to 80 percent of all medical diagnoses. Advances in technology and prescription medical treatment, the mapping of the human genome, and the aging of America's population all contribute to the growing national demand for clinical lab professionals. 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 cross matching 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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/medical-lab/index.dot

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 an 11-month hospital based clinical internship. During the clinical year, the student studies such areas in the clinical laboratory as hematology, clinical chemistry, immunology, microbiology, histology and immunohematology.

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 PhD’s, pathologists, clinical laboratory scientists, and others recognized for their experience in the various sub-specialties of laboratory medicine.

The program is a rigorous one, with very modest flexibility. The course offerings reflect the solid background in the sciences required for the internship experience. During the student’s junior year, application is made to accredited hospital schools of medical technology. The burden of acceptance into a hospital program rests with the students. Canisius currently affiliates with the Rochester General Hospital School of Medical Technology (Rochester, NY) and WCA Hospital School of Medical Technology (Jamestown, NY).

To be successful in the profession, you must be licensed by the New York State Office of the Professionals. To learn more information about the licensure program please go to http://www.op.nysed.gov/

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/medical-lab/learning-goals-objectives/

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

Major Course Requirements (21 courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 114-114L</td>
<td>Human Biology: Intro to Anatomy &amp; Physiology + Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 115-115L</td>
<td>Musculoskeletal Anatomy + Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 111-111L</td>
<td>Introductory Biology I + Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 112-112L</td>
<td>Introductory Biology II + Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 211-211L</td>
<td>Biochemistry &amp; Cell Biology I + Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 212-212L</td>
<td>Biochemistry &amp; Cell Biology II + Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 307-307L</td>
<td>Microbiology + Lab</td>
<td>4</td>
</tr>
<tr>
<td>BIO 426</td>
<td>Immunochemistry</td>
<td>3</td>
</tr>
<tr>
<td>CHM 111-111L</td>
<td>General Chemistry I + Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHM 112-112L</td>
<td>General Chemistry II + Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHM 227-227L</td>
<td>Organic Chemistry I + Lab</td>
<td>4</td>
</tr>
<tr>
<td>CHM 228-228L</td>
<td>Organic Chemistry II + Lab</td>
<td>4</td>
</tr>
<tr>
<td>MAT 141</td>
<td>Inferential Statistics and Computers for Science</td>
<td>4</td>
</tr>
<tr>
<td>Course</td>
<td>Title</td>
<td>Credits</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>Science Elective</td>
<td>One upper level science course approved by Director</td>
<td>3-4</td>
</tr>
<tr>
<td>Business/Computer Science Elective</td>
<td>One course approved by Director</td>
<td>3</td>
</tr>
<tr>
<td>MDT 280-281</td>
<td>Seminar: Sophomore Level</td>
<td>2</td>
</tr>
<tr>
<td>MDT 380-381</td>
<td>Seminar: Junior Level</td>
<td>2</td>
</tr>
<tr>
<td>MDT 400-401</td>
<td>Hospital Rotation</td>
<td>30</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 PROGRAM (ROTC)

Full-Time Faculty: Lieutenant Colonel William J. Carr; Rebecca M. Sparacino, Lieutenant Colonel (Retired); Major Paul Henry; Captain Ryan Wilson; Captain Justin Yellico; Peter Schank, First Lieutenant, NYARNG; David Oliver, Command Sergeant Major, NYARNG; Master Sergeant William Hight; James Sudyn, Master Sergeant (Retired); Sergeant First Class Todd Ligas; Sergeant First Class Barth Payne; Gerard Sobchak, Staff Sergeant (Retired); Sarah E. McMahon and Sylvia Thomas

The Military Science & Leadership (MLS) Program augments the college learning experience. The cornerstone of the MLS program is the development of leaders. Individual courses support the identification, assessment, and leadership development of young men and women. The goal of the MLS Program is to train confident and competent leaders of character for commissioning as officers in the United States Army, Army Reserve or Army National Guard. Every student taking MLS will learn superior organizational, leadership and managerial skills that will prepare them to lead in public service, business, military, and community organizations. This program is open to students of all majors and there is no requirement for previous military service or experience.

The traditional MLS 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), plus a Leadership History Course (3 credits); for which there is a military obligation.

The Basic Course refers to the first and second year of the MSL 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 want to improve their leadership. Instructors develop their students’ physical, mental and critical thinking skills through team building and collective hands-on problem solving case studies. A number of popular and challenging extra-curricular activities are available for students who take these courses. Students may take up to twelve Basic Course credits without 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 Leader Training Course (MLS 210) at Ft. Knox, KY. Students, with prior military service, may also receive placement credit directly into the Advanced Course with approval from the Department Chair. 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 credit free elective:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLS 101</td>
<td>3</td>
</tr>
<tr>
<td>MLS 111L (Fall Semester)</td>
<td>0</td>
</tr>
<tr>
<td>MLS 102</td>
<td>3</td>
</tr>
<tr>
<td>MLS 112L (Spring Semester)</td>
<td>0</td>
</tr>
<tr>
<td>MLS 201</td>
<td>3</td>
</tr>
<tr>
<td>MLS 211L (Fall Semester)</td>
<td>0</td>
</tr>
<tr>
<td>MLS 202</td>
<td>3</td>
</tr>
<tr>
<td>MLS 212L (Spring Semester)</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: Students must present Medical Documentation signed by their doctor in order to participate in the lab portion. The required form is available at the Army ROTC department at Canisius College.

The Advance Course is comprised of MLS 301/311L, MLS 302/312L, MLS 401/411L and MLS 402/412L and MLS 480. 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 credit elective:

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLS 301</td>
<td>3</td>
</tr>
<tr>
<td>MLS 311L</td>
<td>0</td>
</tr>
<tr>
<td>MLS 302</td>
<td>3</td>
</tr>
<tr>
<td>MLS 312L</td>
<td>0</td>
</tr>
<tr>
<td>MLS 401</td>
<td>3</td>
</tr>
<tr>
<td>MLS 411L</td>
<td>0</td>
</tr>
<tr>
<td>MLS 402</td>
<td>3</td>
</tr>
<tr>
<td>MLS 412L</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: Students are required to sign up and participate in Lab during the Advance Course even though they do not receive credit for the lab.

Successful completion of the ROTC program also requires a one-semester course in military history that is offered through the ROTC Department.

Military Science Summer Credit
During the summer, students may receive 3.0 credits for completing MLS 210 – Leader’s 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, 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’s 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: 2013-2015

**MLS 101 – Fall – Introduction to Leadership I**  3 credits
Course focuses on individual leadership skills and functioning as an effective member of a team. Optional: Leadership Lab; three one-hour physical fitness sessions; weekend military exercises. 1¼ hour- twice a week.

**MLS 102 – Spring – Introduction to Leadership II**  3 credits
Course continues leadership development through an introduction to problem solving and effective decision-making techniques. Optional: Leadership Lab; three one-hour physical fitness sessions; weekend military exercises. 1¼ hour- twice a week.

**MLS 201 – Fall-Self & Team Development I** - 3 credits
Course focuses principally on leadership, providing an extensive examination of the unique purpose, roles and obligations of leaders. This course involves exercises in communication; goal setting and public speaking. Optional: leadership labs, three one-hour physical fitness sessions, weekend military exercises. 1¼ hour- twice a week.

**MLS 202 – Spring – Self & Team Development II**  3 credits
Course focuses on motivational techniques, organizational ethics, values and counseling as part of a team. The course involves basic military tactics, small unit operations planning and map reading. Optional: leadership labs, three one-hour physical fitness sessions, weekend military exercises. 1¼ hour- twice a week.

**MLS 111L/112L/211L/212L – Basic Course Leadership Laboratory**  0 credits
Students are given opportunities to lead their peers in hands-on training in basic military skills such as land navigation, rifle marksmanship, tactics, drill and ceremony, first aid training and survival swimming. Prerequisite: Concurrent Enrollment in MLS 101, 102, 201 or 202. All students will be required to provide medical documentation that they are fit to participate in a normal college physical education course.
MLS 210 – Summer Course – Leader’s Training  
Course  
3 credits  
A summer leadership internship held at Fort Knox, Kentucky. Students are paid and expenses are covered. Completion allows a student to compete for a Two Year Army ROTC scholarship and entrance into the Advance Course-five weeks.

MLS 301 – Fall – Unit Organization and Tactical Operations I  
3 credits  
Small unit operations and advanced tactics. Extensive use of situational leadership exercises, group problem solving; in depth formulation of oral and written operational plans and orders, military geography and orienteering. Three hours per week. Prerequisite: Approval of department chair; concurrent registration in MLS 311L.

MLS 302 – Spring – Unit Organization and Tactical Operations II  
3 credits  
Course focus is on application of military leadership theory. Instruction includes delivering briefings and issuing operation orders; advanced military skill training and small unit operations are emphasized. Prerequisite: Approval of department chair; concurrent registration in MLS 312L.

MLS 311L/312L Advanced leadership Lab  
0 credits  
Cadets apply basic military skills in small peer learning exercises and small unit training operations. Leadership positions are rotated to solve problems in tactics, land navigation, logistics and crisis reaction. Required for MSL 301/302 students.

MLS 310 – Summer Course – Leader Development and Assessment Course  
3 credits  
A five week training experience at Fort Lewis, WA designed to develop and evaluate leadership ability. The challenges are demanding, both mentally and physically. In addition to proving their leadership ability, cadets must meet established standards in physical fitness and demonstrate proficiency in military skills.

MLS 401 – Fall – Advanced Leadership Studies  
3 credits  
This course studies leadership skills required of Army Officers and prepares cadets to lead the cadet battalion during the school year. Emphasis on staff organization and function, the Army’s training management system, counseling methods and leadership. Prerequisites: MSL 301, MSL 302 and MSL 310; concurrent registration in MSL 411L.

MLS 402 – Spring – Military Law, Ethics and the Military Profession  
3 credits  
This course is the final preparation to fulfill the requirements for commissioning as a US Army Officer. Course emphasis is on establishing command climates, the military legal system, laws of war, administrative and logistical management and transition from cadet to lieutenant. Prerequisite: MSL 401; concurrent registration in MSL 412L.

MLS 411L/412L – Senior Leadership Laboratory  
0 credits  
Under cadre supervision, seniors plan, conduct and evaluate training for the underclass leadership labs. Seniors provide instruction, coaching and mentoring to underclass cadets, and conduct command and staff activities needed to run the cadet battalion. Required for MLS 401/402.

MLS 480 – Military History  
3 credits  
Explore the evolution of the United States Army from its origins in the Revolutionary War all the way through current operations in Iraq/ Afghanistan as well as the Global War on Terrorism. We will discuss in depth the effects the growth of our nation had on the development of a Professional Army. We will also explore the effects politics and international policy has on determining military strategies. We will explore evolving tactics and the role technology plays in military operations. We also touch on the effects that different cultures/ethnic groups have on both past and present military operations.

MLS 199/299/399/499 - Independent Study - 3 credits  
Students study selected military topics under the supervision of a cadre member. Prerequisite: Permission of the Professor of Military Science.

Chair: Margaret K. Stefanski, PhD
MODERN LANGUAGES, LITERATURES AND CULTURES

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, and import-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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/modern-languages/index.dot

Learning Goals and Objectives
For French learning goals and objectives please go to http://www.canisius.edu/modern-languages/french/learning-goals-objectives/
For German learning goals and objectives please go to http://www.canisius.edu/modern-languages/german/learning-goals-objectives/
For Spanish learning goals and objectives please go to http://www.canisius.edu/modern-languages/spanish/learning-goals-objectives/

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

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 twelve courses in a primary language and four courses in a second language. The requirements are two Intermediate FRC/GER/SPA 200-level courses; Topics in Conversation I and II FRC/GER/SPA 323-324; Substance and Style FRC/SP 332, GER 331-332; and seven SPA/FRC electives, or six GER electives. If starting at 300-level or its equivalent, two additional electives must be completed.

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 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. Study abroad required for both target languages (see Study Abroad Requirements below).

Dual majors in languages and other disciplines are required to complete 10 language courses at 200-level and above.

Dual majors in languages and EDAD are required to complete 12 language courses at 200-level and above. The requirements are two Intermediate FRC/GER/SPA 200-level courses; Topics in Conversation I and II FRC/GER/SPA 323-324; Substance and Style FRC/SPA 332, GER 331-332; and five SPA/FRC electives, or four German electives (two additional electives for Language/EDAD majors.

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.

Dual majors in two languages are required to study abroad for both target languages.

Credits for short programs abroad are determined by the number of contact hours. As a general rule, students complete the 200-level 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. Students must complete at least one course in the major upon return to Canisius College.

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.

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:
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>FRC/GER/SPA 215</td>
<td>FRC/SPA 217, GER 216</td>
</tr>
<tr>
<td>Sophomore</td>
<td>FRC/GER/SPA 323</td>
<td>FRC/GER/SPA 324 and/or GER 331</td>
</tr>
<tr>
<td>Junior</td>
<td>Study Abroad</td>
<td>FRC/GER/SPA Elective</td>
</tr>
<tr>
<td>Senior</td>
<td>FRC/GER/SPA Elective</td>
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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 requirements are two FRC/GER/SPA 200-level courses, Topics in Conversation I and II FRC/GER/SPA 323-324, and/or Substance and Style FRC/SPA 332, GER 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 pre-approval.

Modern Languages, Literatures and Cultures Courses: 2013-2015

ARBC 103-104 Introductory Arabic 6 credits
Reading, writing, listening and speaking. Introduction to Arabic culture. Course aim is for almost exclusive use of Arabic in class. 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 6 credits
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. Prerequisites for ARBC 115: C or better in ARBC 104. ARBC 115 Fall, ARBC 116 Spring

ARBC 215-216 Intermediate Arabic 6 credits
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 3 credits
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  3 credits
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  3 credits
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  3 credits
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)

CHI 103-104 Introductory Chinese  6 credits
Reading, writing, listening and speaking. Introduction to Chinese culture. Course aim is for almost exclusive use of Chinese in class. Prerequisite for CHI 104: C or better in CHI 103 or permission of chair. CHI 103 Fall, CHI 104 Spring

CHI 115-116 Advanced-Introductory Chinese  6 credits
Continued development in writing, listening, speaking and especially reading Chinese literary and cultural material. Comprehensive grammar review. Continued aim of almost exclusive use of Chinese in class. Prerequisites for CHI 115: C or better in CHI 104. CHI 115 Fall, CHI 116 Spring

FRC 103-104 Introductory French  6 credits
Reading, writing, listening and speaking. Introduction to French and francophone cultures. 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 Fall and Spring

FRC 215-217 Intermediate French  6 credits
These 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 Francophone cultures. FRC 217 focuses on French Composition. Exclusive use of French in class. Prerequisites for FRC 215: C or better in FRC 104 or two or three years of high school French. Prerequisite for FRC 217: C or better in FRC 215 or permission of chair. FRC 215 Fall, FRC 217 Spring

FRC 300 Intermediate Internship in France  3 credits
Comparative study of a designated aspect of popular culture in France. For students who have not yet completed FRC 217. Prerequisite: Permission of chair.

FRC 323 Topics in Conversation I  3 credits
Contemporary communication skills emphasized in general exploration of contemporary culture of the Francophone world. Exclusive use of French in class. Phonetics included. Prerequisite: C or better in FRC 217 Fall. Oral Communication Attribute.

FRC 324 Topics in Conversation II  3 credits
A continuation of FRC 323. Exclusive use of French in class. Prerequisite: C or better in FRC 323 or permission of chair. Spring. Oral Communication Attribute.

FRC 332 Substance and Style: Effective Writing in French II  3 credits
Distinguishing and producing effective writing of different types: essay, narrative, description, self-portrait, report, curriculum vitae, and correspondence. Exclusive use of French in class. Prerequisite: C or better in FRC 217 or permission of chair. Spring

FRC 351 Junior French Seminar and Special Topics  3 credits
Intensive analysis of selected literary, cultural, and historical works. Research paper required. Exclusive use of French in class. Prerequisite: C or better in FRC 324 and FRC 332 or permission of chair.
FRC 400 Advanced Internship in France 3 credits
Comparative study of a designated aspect of culture in France. For students who have already completed FRC 332/324. Prerequisite: Permission of chair.

FRC 433-434 Survey of French and Francophone Literature I/II 6 credits
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 3 credits
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.

FRC 439 French and Francophone History and Culture Through Film II 3 credits
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. Spring. Field 3-Arts, Global Awareness Attribute.

FRC 441-442 Advanced French for Business I/II 6 credits
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 3 credits
Exploration of the history, culture, and literature of the varied Francophone 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. Field 3-Arts, Global Awareness Attribute.

FRC 451 French Seminar and Special Topics 3 credits
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 3 credits
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 Roi), 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 3 credits
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 454 Héritages Francophones 3 credits
The goal of this course is to examine the Francophone cultures in the United States and Canada. The communities to be explored include descendants of Acadians in the St. John Valley of Maine and the maritime provinces of Canada; the Cajun populations of Louisiana; the Haitian community in Miami; and the immigrants from Africa, Asia, and Europe. The focus on these communities will naturally include an examination of the countries or the areas of origin of these various groups. Field 3-Arts, Diversity Attribute.

FRC 499 Independent Study 3 credits
Prerequisite: Permission of chair.

GER 103-104 Introductory German 6 credits
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 215-216 Intermediate German 6 credits
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 104 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 3 credits
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 3 credits
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 311 Substance and Style: Effective Writing in German I 3 credits
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 3 credits
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 6 credits
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 3 credits
Qualified students are placed in jobs or service programs where they will use and perfect language skills. Prerequisite: Permission of chair.

GER 451 Nobel Laureates for Literature 3 credits
A thorough study of German Nobel Laureates for Literature, their writing style, topics of immediate and distant concern. Authors studied include Thomas Mann, Hermann Hesse, Elias Canetti, Günter Grass, and Heinrich Böll. Prerequisite: C or better in GER 216 and GER 332 or permission of chair.

GER 453 German Literature since 1945 3 credits
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 455 The Weimar Republic: Culture and Literature 3 credits
A close look at "roaring twenties" in Weimar Berlin and Germany, their cultural significance and place in the history of Germany between World War I and the "3rd Reich". All aspects of the cultural progression are studied – from architecture to film, from literature to music. Prerequisite: C or better in GER 324 and GER 332 or permission of chair.

GER 456 Timm, Koeppen, Sebald, Becker and Heym 3 credits
Selected readings from five of the most prominent post-WWII German writers. Comparison and critical analysis of literary representations of Jewish life in West- and East-German literature. Prerequisite: C or better in GER 324 and GER 332 or permission of chair.

GER 461 Germany before Re-Unification 3 credits
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 3 credits
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 3 credits
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 466 Cinematic Representation of the Holocaust 3 credits
Recent film productions from Germany on first, second, and third generation survivors of the Holocaust are studied as exemplary instances of Germany’s coping with its horrible past. All aspects of Holocaust representations are highlighted – from celebrating the dead to questions of psychological coping with the past, from questions of evil to instances of hope. Prerequisite: C or better in GER 324 and GER 332 or permission of chair.

GER 472 Contemporary German Film 3 credits
Concentration on the period of Autorenfilm and highlighting some of its most prominent directors: Rainer Werner Fassbinder, Werner Herzog, Alexander Kluge, Edgar Reitz, Volker 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 German Literature and Film 3 credits
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

GER 478 Jewish Philosophers of German Ancestry 3 credits
An In-depth look at thoughts and ideas of some of the most prominent Jewish philosophers in Germany from Moses Mendelssohn to Hans Jonas. Questions of interest include “religion and reason”, an “ethics for the future”, questions on “evil and redemption”, etc. This course is for the philosophically trained student.

ITA 103-104 Introductory Italian 6 credits
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  6 credits
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  6 credits
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  6 credits
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  6 credits
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 Fall and Spring

SPA 215-217 Intermediate Spanish  6 credits
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. SPA 217 focuses on Spanish Composition. Exclusive use of Spanish in class. Prerequisite for SPA 215: C or better in SPA 104 or two or three years of high school Spanish. Prerequisite for SPA 217: C or better in SPA 215 or permission of chair. SPA 215 Fall, SPA 217 Spring

SPA 323 Topics in Conversation I: Peninsular Culture and Civilization  3 credits
Contemporary communication skills emphasized in general exploration of contemporary culture of Spain. Exclusive use of Spanish in class. Fall. Prerequisite: C or better in SPA 217. Oral Communication Attribute.

SPA 324 Topics in Conversation II: Latin American Culture and Civilization  3 credits
Contemporary communication skills emphasized in general exploration of contemporary culture of Latin America. Exclusive use of Spanish in class. Prerequisite: C or better in SPA 217. Spring. Oral Communication Attribute.

SPA 332 Substance and Style: Effective Writing in Spanish  3 credits
Distinguishing and producing effective writing of different types: description, narration, argumentation, and academic essay. Exclusive use of Spanish in class. Prerequisite: C or better in SPA 217. Spring

POL 103 -104 Introductory Polish  6 credits
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

SPA 400 Spanish Internship  3 credits
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  3 credits
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 332 or permission of chair.

SPA 403 Spanish for Medical Professions  3 credits
Offered exclusively in Costa Rica during the summer for 5 weeks. In conjunction with an internship for an additional 3 credits. Prerequisite: Grade of C or better in at least one 300 level course, or permission of chair

SPA 404 Issues in the Spanish-speaking world  3 credits
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 332 or permission of chair.
SPA 405 Spanish Literary Myths: Don Quixote, Don Juan and Carmen  3 credits
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 332 or permission of chair. Field 3-Arts, Global Awareness Attribute.

SPA 420 Spanish Contemporary Essay  3 credits
An examination of cultural themes (identities, stereotypes, customs and traditions, daily life) in the essayist work of the best contemporary Spanish writers: Lucía Extebarria, 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 332 or permission of chair.

SPA 433 La Telenovela: The Soap Opera in Latin America  3 credits
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 332 or permission of chair.

SPA 436 Detective Fiction Murderous Seduction  3 credits
We will explore the detective novel in Latin American interpretations of the genre with García Márquez, Vargas Llosa, and Conteris, 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 332 or permission of chair.

SPA 439 The Plantation Islands  3 credits
A study of 20th Century novels, films, and essays from the Caribbean which depict the experience of the plantation. We will discuss the sociopolitical 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 332 or permission of chair.

SPA 450 Spanish through the Media  3 credits
This course will give you the opportunity to engage with the Spanish-speaking media and to explore current issues relevant to Spain, while building up your vocabulary and your overall command of the language. The course content will be divided thematically into five modules: los nacionalismos de España, el desempleo, La emigración y la inmigración, la familia española en el siglo XXI, and el papel de la mujer en la sociedad contemporánea. Prerequisite: C or better in two of the following courses: SPA 323, SPA 324, SPA 332 or permission of chair.

SPA 453 Who’s Afraid of Franco? Almodóvar and La Movida: The Films of Pedro Almodóvar and After  3 credits
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 sociopolitical 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 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 332 or permission of chair. Optional actual one-week walk along the Camino to be offered in the spring.

SPA 455 Spanish Short Fiction 3 credits
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 332 or permission of chair. Field 3-Arts, Global Awareness Attribute.

SPA 456: Cuban Cinema of the Revolution: The Films of Tomás Gutierrez Alea and Juan Carlos Tabío. 3 credits
This course explores how the personal narrative of film is politically charged 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 332 or permission of chair.

SPA 459 The Body Erotic/The Body Politic: Sexuality as Political Discourse in Latin America and Spain 3 credits
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 332 or permission of chair.

SPA 460 Lorca and his époque 3 credits
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 332 or permission of chair. Field 3-Arts.

SPA 463 Magic Realism: Latin America and the Boom 3 credits
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 332 or permission of chair.

SPA 499 Independent Study 3 credits
Prerequisite: Permission of chair.
Introduction
Philosophy probes into some of the deepest questions of human life. What is the nature of reality? What is truth? What is happiness? What is justice? The philosophy curriculum explores these – and many other – fundamental questions and helps students to formulate reasonable answers to these questions.

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. For more information on the Philosophy department, please visit our website at http://www.canisius.edu/philosophy/index.dot

Student Learning Goals
Upon successfully completing a program of philosophy instruction, each philosophy graduate will have:

- Acquired a broad knowledge of major figures, branches, and terminologies in western philosophy.
- Acquired a broad knowledge of major figures, branches, and terminologies in western philosophy.
- Become information literate as this applies to philosophical study and research.

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/philosophy/learning-goals-objectives/

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

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 curriculum combines 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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI 225</td>
<td>Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHI 301</td>
<td>Ancient Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 302</td>
<td>Medieval Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 303 or PHI 304</td>
<td>Modern Philosophy (1 Course) At least one from the following: Early Modern Philosophy 19th Century Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 305 or PHI 306</td>
<td>Contemporary Philosophy (1 Course) And at least one more from the following: Contemporary Continental Philosophy Contemporary Analytic Philosophy</td>
<td>3</td>
</tr>
</tbody>
</table>

Hypatian Scholars Philosophy Curriculum
This curriculum prepares scholars for advanced study in disciplines other than philosophy and consists of 10 courses (30 cr hrs) beyond PHI 101.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI 225</td>
<td>Logic</td>
<td>3</td>
</tr>
<tr>
<td>PHI 301</td>
<td>Ancient Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 302</td>
<td>Medieval Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 303 or PHI 304</td>
<td>Modern Philosophy (1 Course) At least one from the following: Early Modern Philosophy 19th Century Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 305 or PHI 306</td>
<td>Contemporary Philosophy (1 Course) And at least one more from the following: Contemporary Continental Philosophy Contemporary Analytic Philosophy</td>
<td>3</td>
</tr>
</tbody>
</table>

*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 266, PHI 268, 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 five (5) courses at middle and upper levels of study that might complement another major or provide personal intellectual satisfaction.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>One course from among PHI 301, 302</td>
<td>3</td>
</tr>
<tr>
<td>One course from among PHI 303, 304, 305, 306</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy Elective</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy Elective</td>
<td>3</td>
</tr>
<tr>
<td>Philosophy Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

<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>PHI 101</td>
<td>RST 101</td>
</tr>
<tr>
<td></td>
<td>Core Field 3</td>
<td>PHI 225 Logic (Core Field 2)</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>Core Field 4</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td>Sophomore</td>
<td>PHI History Component</td>
<td>PHI History Component</td>
</tr>
<tr>
<td></td>
<td>PHI Ethics Theory</td>
<td>PHI Applied Ethics</td>
</tr>
<tr>
<td></td>
<td>Core Field 1</td>
<td>Core Field 5</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td>Junior</td>
<td>PHI 300 Elective</td>
<td>PHI Elective</td>
</tr>
<tr>
<td></td>
<td>PHI Elective</td>
<td>PHI 400 Elective</td>
</tr>
<tr>
<td></td>
<td>Core Field 6</td>
<td>Core Field 7</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td>Senior</td>
<td>PHI Elective</td>
<td>PHI Elective</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>PHI 451</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td>Free Elective</td>
</tr>
<tr>
<td></td>
<td>Core Capstone</td>
<td>Free Elective</td>
</tr>
</tbody>
</table>
Dual Majors
Students who wish to expand their educational opportunities may decide to declare a second 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, a student must complete the appropriate dual major request form and secure the signature of each department chair and the appropriate Associate Dean.

Supplemental Study
The Philosophy faculty encourages each philosophy major to supplement his/her course of study by taking advantage of the large number of free electives available. We recommend that students advance their study of classical and modern languages, and to complement their history of philosophy sequence with appropriate history courses. There is a wide arrange of fine liberal arts courses in the various departments of the College of Arts and Sciences. Philosophy requires a breadth of knowledge in many disciplines.

Philosophy Courses: 2013-2015

PHI 101: Introduction to Philosophy 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
A survey of principal traditions in moral reasoning with attention to moral principles inclusive of utility, deontology and virtue, and their applications to contemporary social realities.
PHI 242 – Ethical Issues in Business 3 credits
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 3 credits
A study of important moral issues in relation to current concerns in medicine, medical technology, and the life sciences.

PHI 244 – Environmental Ethics 3 credits
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 3 credits
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 3 credits
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 3 credits
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 251 – Love, Friendship and Moral Life 3 credits
A philosophical study of the relationships among love, friendship and a moral life that treats individuals in families and society.

PHI 252 – Happiness, Virtue and the Good Life 3 credits
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 255 – Philosophy of Law 3 credits
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 262 – Philosophy of International Law 3 credits
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 266 – Philosophy of the Family 3 credits
A study of traditional and modern notions of the family with attention to challenges to the family in contemporary society.

PHI 267 – Catholic Social Thought 3 credits
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 268 – Catholic and Jewish Bioethics 3 credits
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 271 – Philosophy of Human Rights 3 credits
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 272 – Gender and Philosophy 3 credits
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 273 – Race and Philosophy 3 credits
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 274 – Social and Political Philosophy 3 credits
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 281 – World Wisdom: Global Traditions 3 credits
A comparative study of philosophical traditions ranging from locations such as ancient Greece, Africa, Asia and the Americas.

PHI 285 – African American Philosophy 3 credits
A study of philosophical trends within the American experience with attention to the contributions of prominent African American philosophers and social activists.

PHI 286 – Latin American Philosophy 3 credits
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 291 – Philosophy of Art and Beauty 3 credits
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 philosophical 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 thesis experiences.

Series In History Of Philosophy
Series I
PHI 301 – Ancient Philosophy 3 credits
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 credits
An examination of principal trends in Medieval philosophy from St. Augustine in the fifth century to Renaissance philosophical explorations.

Series II
PHI 303 – Early Modern Philosophy 3 credits
An in-depth examination of major thinkers in the modern western philosophical tradition from Descartes to Kant, from the Renaissance to the Enlightenment.

PHI 304 – Nineteenth Century Philosophy 3 credits
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 credits
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 postmodernism.

PHI 306 – Contemporary Analytic Philosophy 3 credits
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 credits
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 credits
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 credits
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 credits
An exploration of classical Chinese philosophical traditions with special emphasis on the Confucian and Daoist traditions.

PHI 318 – Indian Philosophy 3 credits
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 credits
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 credits
An examination of principal philosophies of nature and being and various philosophic approaches to knowledge and understanding.

PHI 322 – Philosophy of Science 3 credits
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 credits
Advanced study of formal systems of logic, constructing artificial languages with a syntax, semantics and deduction system.

PHI 345 – Justice and the Environment 3 credits
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 credits
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 credits
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 credits
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 credits
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 credits
Explores metaphysical, ethical, political and social issues concerning sex/ gender identity.

PHI 376 – Marx and Marxism 3 credits
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 credits
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 credits
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 credits
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 credits
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 credits
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 credits
A study of principal trends in American thinking with special focus on the pragmatic philosophers.

PHI 395 – Problems in Aesthetics 3 credits
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 credits
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 credits
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 credits
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
PHI 400 level courses engage students in using their analytic skills to synthesize, evaluate and critique philosophic discourse; especially to grasp the logical-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.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHI 401</td>
<td>Seminar on Ancient Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 402</td>
<td>Seminar on Medieval Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 403</td>
<td>Seminar on Modern Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 404</td>
<td>Seminar on Contemporary Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 405</td>
<td>Seminar on Topics in Metaphysics</td>
<td>3</td>
</tr>
<tr>
<td>PHI 406</td>
<td>Seminar on Topics in Epistemology</td>
<td>3</td>
</tr>
<tr>
<td>PHI 407</td>
<td>Seminar on Topics in Ethics</td>
<td>3</td>
</tr>
<tr>
<td>PHI 408</td>
<td>Seminar on Topics in Aesthetics</td>
<td>3</td>
</tr>
<tr>
<td>PHI 409</td>
<td>Seminar on Topics in Social and Political Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PHI 451</td>
<td>Senior Thesis – A Philosophy capstone experience</td>
<td>3</td>
</tr>
</tbody>
</table>

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 credits
Personally designed with a member of the Philosophy Department. Topics and terms mutually determined by student and mentor. Tutorial.
PHYSICAL EDUCATION

Interim Chair: Peter M. Koehneke

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 over 200 hours of practicum experiences in multiple courses (PED 311, HED 325, PED 371 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 semester long 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.

For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/phys-ed/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/phys-ed/physical-education/pe-learning-goals/

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

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

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>PED 203</td>
<td>Net, Target, and Fitness Activities</td>
<td>3</td>
</tr>
<tr>
<td>PED 204</td>
<td>Invasion Games</td>
<td>3</td>
</tr>
<tr>
<td>PED 207</td>
<td>Dance and Gymnastics</td>
<td>3</td>
</tr>
<tr>
<td>PED 305</td>
<td>Outdoor Curriculum and Cooperative Activities</td>
<td>3</td>
</tr>
<tr>
<td>PED 311</td>
<td>Movement Education and Elementary Activities</td>
<td>3</td>
</tr>
<tr>
<td>PED 351</td>
<td>Coaching Theory and Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PED 354</td>
<td>Adapted Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>PED 355</td>
<td>Disability Sports</td>
<td>3</td>
</tr>
<tr>
<td>PED 360</td>
<td>Human Growth and Motor Development</td>
<td>3</td>
</tr>
<tr>
<td>PED 371</td>
<td>Assessment in Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>KIN 235</td>
<td>Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 114/L</td>
<td>Human Biology: An Introduction to Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 115/L</td>
<td>Musculoskeletal Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>HED 205</td>
<td>Wellness and Fitness</td>
<td>3</td>
</tr>
<tr>
<td>HED 321</td>
<td>Lifeguard, CPR, First Aid, WSI</td>
<td>3</td>
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<tr>
<td>HED 337</td>
<td>Exercise Principles and Applications</td>
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<td>HED 361</td>
<td>Psychology of Sport and Mental Health</td>
<td>3</td>
</tr>
<tr>
<td>EDU 122</td>
<td>Technology in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU 250</td>
<td>Foundations of Education</td>
<td>3</td>
</tr>
<tr>
<td>PED 372</td>
<td>Seminar in Kinesiology</td>
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<tr>
<td>PED 380</td>
<td>Concepts in Teaching Sport Skills</td>
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<td>PED 441</td>
<td>Teaching Methods of Physical Education</td>
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<tr>
<td>PED 493</td>
<td>Student Teaching</td>
<td>12</td>
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<td>PED 494</td>
<td>Capstone Seminar for Teachers</td>
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<tr>
<td>EDU 495</td>
<td>Child Abuse Seminar</td>
<td>0</td>
</tr>
<tr>
<td>EDU 496</td>
<td>Violence Prevention Workshop</td>
<td>0</td>
</tr>
</tbody>
</table>

## Major Electives

Physical Education majors should consult their advisor for major electives.

## Major Experiences

All students in the physical education major must meet and continue to meet the professional standards of the program. No one who jeopardizes the health or well-being of a student, classmate or him or herself will continue as a student in the program. All students must possess the necessary physical attributes and exhibit qualities of good judgment and emotional stability. The physical education 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 assessment handbook outlines the enforcement of this policy. In all cases, the final appeal may be made to the Department of Kinesiology chair.

## Additional Course Considerations

HED 321 Lifeguard, CPR, First Aid requires a special course fee that is related to certification requirements. 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 371 require 30 hour field experiences. Transportation needed. Physical Education majors should consult their advisor for additional course considerations. Students must also achieve and maintain personal fitness by passing a physical fitness test.
### 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><strong>Field of Knowledge Course (3 credits)</strong></td>
<td><strong>Field of Knowledge Course (3 credits)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>EDU 122 (3 credits)</strong></td>
<td><strong>PED 203 (3 credits)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>BIO 114 and Lab (4 credits)</strong></td>
<td><strong>BIO 115 and Lab (4 credits)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>PED 204 (3 credits)</strong></td>
<td><strong>PED 207 (3 credits)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>RST 101 (3 credits)</strong> or PHI 101 (3 credits)</td>
<td><strong>RST 101 (3 credits)</strong> or PHI 101 (3 credits)</td>
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<tr>
<td></td>
<td><strong>Field of Knowledge Course (3 credits)</strong></td>
<td><strong>PED 351 or KIN 235 (3 credits)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>PED 354 or HED 361 (3 credits)</strong></td>
<td><strong>HED 337 (3 credits)</strong> or <strong>HED 205 (3 credits)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>KIN 235 or PED 351 (3 credits)</strong></td>
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</tr>
<tr>
<td></td>
<td><strong>HED 205 (3 credits)</strong> or <strong>HED 337 (3 credits)</strong></td>
<td><strong>HED 361 (3 credits)</strong> or <strong>PED 354 (3 credits)</strong></td>
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<td><strong>Elective (3 credits)</strong></td>
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<td></td>
<td><strong>PED 355 (3 credits)</strong></td>
<td><strong>PED 371 (3 credits)</strong></td>
</tr>
<tr>
<td></td>
<td><strong>HED 321 (3 credits)</strong></td>
<td><strong>PED 372 (3 credits)</strong></td>
</tr>
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<td></td>
<td><strong>PED 311 (3 credits)</strong></td>
<td><strong>EDU 250 (3 credits)</strong></td>
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<tr>
<td>Senior</td>
<td>Field of Knowledge Course (3 credits)</td>
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<td></td>
<td>PED 305 (3 credits)</td>
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<td></td>
<td>PED 441 (3 credits)</td>
<td>EDU 495 (0 credits)</td>
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<td></td>
<td>PED 380 (3 credits)</td>
<td>EDU 496 (0 credits)</td>
</tr>
<tr>
<td></td>
<td>PED 360 (3 credits)</td>
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</tr>
<tr>
<td></td>
<td>PED 494 (3 credits)</td>
<td></td>
</tr>
</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.

The Strength and Conditioning minor is common minor for physical education students. The minor provides students with preparation for the fields of strength and conditioning, wellness, and for related graduate work. It also helps students prepare for specialty certifications through the American College of Sports Medicine, the National Strength and Conditioning Association and the National Academy of Sports Medicine. Strength and conditioning
courses have specific pre-requisites, which are stated in the course descriptions.

Admission to the Strength and Conditioning 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 KIN 235. Each course must be completed with a grade of C (2.3) or higher. The applicant must attain a minimum C (2.3) 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 Strength and Conditioning minor at Canisius College must complete a Change of Major/Minor form. Application for the minor must be completed following enrollment in KIN 235.

**Strength and Conditioning Minor Courses:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 114</td>
<td>Human Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 115</td>
<td>Musculoskeletal Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>KIN 235</td>
<td>Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KIN 336</td>
<td>Physiology of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>HED 337</td>
<td>Exercise Principles</td>
<td>3</td>
</tr>
<tr>
<td>ATH 373</td>
<td>Nutritional Issues for Athletic Trainers</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or Basic Nutrition</td>
<td></td>
</tr>
<tr>
<td>HED 115</td>
<td>Principles and Philosophy of Coaching</td>
<td>3</td>
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<tr>
<td>PED 365</td>
<td>Principles and Philosophy of Coaching</td>
<td>3</td>
</tr>
<tr>
<td>KIN 420</td>
<td>Strength and Conditioning Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note:** Dr. Karl Kozlowski or Dr. Chuck Pelitera serve as advisors for the Strength and Conditioning minor program in the Department of Kinesiology.
Interim Chair: Peter M. Koehneke

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.

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/Health Teacher Certification Option complete a total of 150 hours of practicum experiences in three different courses (PED 311, PED 371, PED 441 and HED 325).

This program of instruction incorporates the standards established for physical education and health at the local school district level, the New York State learning standards for health and physical education, the guidelines set forth by the National Association for Sport and Physical Education (NASPE) and the curriculum standards outlined for health education and health certification by the American Association for Health Education (AAHE). 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 or her advisor.

For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/phys-ed/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/phys-ed/dual-program/dual-learning-goals/

Qualifications
Academic Criteria for Endorsement and Completion of Program:
• Cumulative GPA of 2.5 or higher
• Grades of C or higher in major courses
• Satisfactory performance in field placements
• Successful portfolio review

Advisement
All Physical Education/Health 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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>PED 203</td>
<td>Net, Target, and Fitness Activities</td>
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<tr>
<td>PED 204</td>
<td>Invasion Games</td>
<td>3</td>
</tr>
<tr>
<td>PED 207</td>
<td>Dance and Gymnastics</td>
<td>3</td>
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<tr>
<td>PED 305</td>
<td>Outdoor Curriculum and Cooperative Activities</td>
<td>3</td>
</tr>
<tr>
<td>PED 311</td>
<td>Movement Education and Elementary Activities</td>
<td>3</td>
</tr>
<tr>
<td>PED 351</td>
<td>Coaching Theory and Techniques</td>
<td>3</td>
</tr>
<tr>
<td>PED 354</td>
<td>Adapted Physical Education</td>
<td>3</td>
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<tr>
<td>PED 355</td>
<td>Disability Sports</td>
<td>3</td>
</tr>
<tr>
<td>PED 360</td>
<td>Human Growth and Motor Development</td>
<td>3</td>
</tr>
<tr>
<td>PED 371</td>
<td>Assessment in Physical Education</td>
<td>3</td>
</tr>
<tr>
<td>KIN 235</td>
<td>Kinesiology</td>
<td>3</td>
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</table>

**Physical Education Courses**

**Health Education Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>BIO 114/L</td>
<td>Human Biology: An Introduction to Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 115/L</td>
<td>Musculoskeletal Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>HED 115</td>
<td>Basic Nutrition</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>HED 321</td>
<td>Lifeguard, CPR, First Aid, WSI</td>
<td>3</td>
</tr>
<tr>
<td>HED 325</td>
<td>School Health</td>
<td>3</td>
</tr>
<tr>
<td>HED 326</td>
<td>Health Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>HED 337</td>
<td>Exercise Principles</td>
<td>3</td>
</tr>
<tr>
<td>HED 361</td>
<td>Psychology of Sport and Mental Health</td>
<td>3</td>
</tr>
<tr>
<td>HED 425</td>
<td>Evolution of Disease and Illness</td>
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**Pedagogical Core**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tr>
<td>EDU 122</td>
<td>Technology in Education</td>
<td>3</td>
</tr>
<tr>
<td>EDU 250</td>
<td>Foundations of Education</td>
<td>3</td>
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<tr>
<td>PED 372</td>
<td>Seminar in Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>PED 380</td>
<td>Concepts in Teaching Sport Skills</td>
<td>3</td>
</tr>
</tbody>
</table>

**PED 441** | Teaching Methods of Physical Education | 3 |
**PED 493** | Student Teaching | 12 |
**PED 494** | Capstone Seminar for Teachers | 3 |
**EDU 495** | Child Abuse Seminar | 0 |
**EDU 496** | Violence Prevention Workshop | 0 |

**Major Experiences**

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### Year Fall Semester | Spring Semester
--- | ---
**Freshman**  |  
FYS 101 (3 credits) | ENG 101 (3 credits)  
Field of Knowledge Course (3 credits) | PED 207 (3 credits)  
EDU 122 (3 credits) or HED 115 (3 credits) | HED 115 or EDU 122 (3 credits)  
PED 204 (3 credits) | PED 203 (3 credits)  
BIO 114 and Lab (4 credits) | BIO 115 and Lab (4 credits)  
**Sophomore**  |  
Field of Knowledge Course (3 credits) | Field of Knowledge Course (3 credits)  
HED 205 (3 credits) or HED 220 (3 credits) | HED 220 (3 credits) or HED 205 (3 credits)  
KIN 235 (3 credits) or PED 351 (3 credits) | PED 351 or KIN 235 (3 credits)  
PED 354 (3 credits) or HED 361 (3 credits) | PED 354 (3 credits) or HED 361 (3 credits)  
**Junior**  |  
Field of Knowledge Course (3 credits) | Field of Knowledge Course (3 credits)  
PED 311 (3 credits) | HED 325 (3 credits)  
PED 355 (3 credits) | PED 371 (3 credits)  
HED 326 (3 credits) | HED 337 (3 credits) or HED 425 (3 credits)  
HED 321 (3 credits) | PED 372 (3 credits)  
HED 425 or HED 337 (3 credits) | EDU 250 (3 credits)  
**Senior**  |  
PED 441 (3 credits) | PED 441 Lab (0 credits)  
PED 380 (3 credits) | EDU 495 (0 credits)  
PED 360 (3 credits) | EDU 496 (0 credits)  
PED 305 (3 credits) |  
PED 494 (3 credits) |  

### Dual Majors
Physical Education/Health 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.

### Notes: Clancy Seymour serves as the coordinator for the Physical Education/Health Program.

### Minors
Physical Education/Health 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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the American College of Sports Medicine, the National Strength and Conditioning Association and the National Academy of Sports Medicine. Strength and conditioning courses have specific pre-requisites, which are stated in the course descriptions.

Admission to the Strength and Conditioning 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 KIN 235. Each course must be completed with a grade of C (2.3) or higher. The applicant must attain a minimum C (2.3) 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 Strength and Conditioning minor at Canisius College must complete a Change of Major/Minor form. Application for the minor must be completed following enrollment in KIN 235.

**Strength and Conditioning Minor Courses:**

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<thead>
<tr>
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<td>Human Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 115</td>
<td>Musculoskeletal Anatomy</td>
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<td>KIN 235</td>
<td>Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KIN 336</td>
<td>Physiology of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>HED 337</td>
<td>Exercise Principles</td>
<td>3</td>
</tr>
<tr>
<td>ATH 373 or HED 115</td>
<td>Nutritional Issues for Athletic Trainers or Basic Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>PED 365</td>
<td>Principles and Philosophy of Coaching</td>
<td>3</td>
</tr>
<tr>
<td>KIN 420</td>
<td>Strength and Conditioning Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note:** Dr. Karl Kozlowski or Dr. Chuck Pelitera serve as advisors for the Strength and Conditioning minor program in the Department of Kinesiology.
Interim Chair: Peter M. Koehneke

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/phys-ed/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/phys-ed/sports-studies/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 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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<tr>
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<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPMT 150</td>
<td>Introduction to Sports Management</td>
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<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>KIN 235</td>
<td>Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>HED 337</td>
<td>Exercise Principles and Applications</td>
<td>3</td>
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<td>PED 351</td>
<td>Coaching Theory and Techniques</td>
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<td>HED 425</td>
<td>Disease and Illness</td>
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<td>HED 361</td>
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<tr>
<td>BIO 114/L</td>
<td>Human Biology: An Introduction to Anatomy and Physiology</td>
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<td>BIO 115/L</td>
<td>Musculoskeletal Anatomy and Physiology</td>
<td>4</td>
</tr>
<tr>
<td>PE or Health Elective</td>
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<tr>
<td>PE or Health Elective</td>
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<td>PE or Health Elective</td>
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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.
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>SPMT 150 (3 credits)</td>
<td>HED 220 (3 credits)</td>
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<tr>
<td></td>
<td>BIO 114 and Lab (4 credits)</td>
<td>BIO 115 and Lab (4 credits)</td>
</tr>
<tr>
<td></td>
<td>RST 101 (3 credits)</td>
<td>PHI 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>FYS 101 (3 credits)</td>
<td>ENG 101 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Elective (3 credits)</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>KIN 235 (3 credits)</td>
<td>SPMT 230 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>HED 205 (3 credits)</td>
<td>Field 1 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Field 7 (3 credits)</td>
<td>Electives (9 credits)</td>
</tr>
<tr>
<td></td>
<td>Electives (6 credits)</td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>HED 337 (3 credits)</td>
<td>HED 361 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>PED 351 (3 credits)</td>
<td>Field 3 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Field 2 (3 credits)</td>
<td>Electives (9 credits)</td>
</tr>
<tr>
<td>Senior</td>
<td>HED 425 (3 credits)</td>
<td>Core Capstone (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Field 4 (3 credits)</td>
<td>Electives (12 credits)</td>
</tr>
<tr>
<td></td>
<td>Electives (9 credits)</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.

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>

The Strength and Conditioning minor is also available for physical education sport studies students. The minor provides students with preparation for the fields of strength and conditioning, wellness, and for related graduate work. It also helps students prepare for specialty certifications through the American College of Sports Medicine, the National Strength and Conditioning Association and the National Academy of Sports Medicine. Strength and conditioning courses have specific pre-requisites, which are stated in the course descriptions.

Admission to the Strength and Conditioning 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 KIN 235. Each course must be completed with a grade of C (2.3) or higher. The applicant must attain a minimum C (2.3) 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 Strength and Conditioning minor at Canisius College must complete a Change of Major/Minor form. Application for the minor must be completed following enrollment in KIN 235.

Strength and Conditioning Minor Courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 114</td>
<td>Human Biology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 115</td>
<td>Musculoskeletal Anatomy</td>
<td>4</td>
</tr>
<tr>
<td>KIN 235</td>
<td>Kinesiology</td>
<td>3</td>
</tr>
<tr>
<td>KIN 336</td>
<td>Physiology of Exercise</td>
<td>3</td>
</tr>
<tr>
<td>HED 337</td>
<td>Exercise Principles</td>
<td>3</td>
</tr>
<tr>
<td>ATH 373</td>
<td>Nutritional Issues for Athletic Trainers</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>Basic Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>HED 115</td>
<td>Basic Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>PED 365</td>
<td>Principles and Philosophy of Coaching</td>
<td>3</td>
</tr>
<tr>
<td>KIN 420</td>
<td>Strength and Conditioning Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Dr. Karl Kozlowski or Dr. Chuck Pelitera serve as advisors for the Strength and Conditioning minor program in the Department of Kinesiology.

Note: Dr. Gregory Reeds serves as the coordinator of the Physical Education Sport Studies program.


HED 115 Basic Nutrition 3 credits
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 credits
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 credits
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 credits
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

HED 325 School Health 3 credits
Students will practice strategies and methodologies needed for effectively teaching health education. Students will participate in a field experience and will analyze experiences as a process to improving instruction. Students will demonstrate their ability to plan for instruction by writing and implementing learning experiences that meet the National Health Education Standards. Field experience required. Fall/Spring

HED 326 Health Curriculum 3 credits
Students explore the most prevalent health and safety issues of school-aged children and examine rationale for health education, theories, methods, strategies, and techniques of health education program planning. Additionally, students will plan effective comprehensive school health education programs: integration of school and community services. Fall

HED 337 Exercise Principles and Applications 3 credits
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 361 Psychology of Sport and Mental Health 3 credits
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

HED 425 Evolution of Disease and Illness 3 credits
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

PED 203 Net, Target and Fitness Activities 3 credits
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. Spring

PED 204 Invasion Games 3 credits
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

PED 207 Dance and Gymnastics 3 credits
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. Spring
PED 305 Outdoor Curriculum and Cooperative Activities 3 credits
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

PED 311 Movement Education and Elementary Activities 3 credits
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 Field experience required. Fall/Spring

PED 351 Coaching Theory and Techniques 3 credits
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 3 credits
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 355 Disability Sports 3 credits
Identification of national and international sport and recreational opportunities for individuals with disabilities. Paralympics, Special Olympics, and other disability sport movements and sport classifications will be reviewed. Insight into the historical development of disability sports as well as the delivery of sport models in school and community settings will be included. Spring

PED 360 Human Growth and Motor Development 3 credits
Examination of principles of growth and developmental theory with an emphasis on factors affecting changes in movement potential of individuals. Fall/Spring

PED 371 Assessment in Physical Education 3 credits
Lectures, laboratory, and field experience in the Physical Best Fitness program, Fitness gram, and integrating PE Metrics and the NYS PE Profile. Focus on the evaluation of the State standards and authentic assessments and NASPE guidelines. Certification fee required for this course. 30 hour field experience required. Fall, Spring

PED 372 Seminar in Kinesiology 3 credits
Current issues in a variety of related topics. Advanced Writing Attribute Designation. Fall, Spring

PED 380 Concepts of Teaching Sport Skills 3 credits
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 3 credits
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 Prerequisites: PED 311 and HED 325. Department Chair Signature. Fall, Spring

PED 441 Teaching Methods in Physical Education Lab 0 credits
Field experience concurrent with PED 441. Prerequisites: PED 311 and HED 325. Department Chair Signature. Fall, Spring

PED 493 Student Teaching Physical Education/Health: Childhood and Adolescence 12 credits
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  3 credits
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  0 credits
Held during the Student Teaching Seminar. Required for NYS Teacher Certification.  Fall, Spring

EDU 496 Prevention of School Violence Seminar  0 credits
Held during the Student Teaching Seminar. Required for NYS Teacher Certification.  Fall/Spring  NOTE:  PED 493, EDU 495, EDU 496 must be registered together during the student teaching semester. This will count as a full semester of three courses, 12 credit hours.

PED 498 Internship  3 credits
Field-based experience in selected areas of physical education. Requires 120 clock hours. Prerequisite: Department Chair permission.  Fall, Spring

PED 499 Independent Study  3 credits
Prerequisite: Department Chair permission.  Fall, Spring
### 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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to [http://www.canisius.edu/physics/index.dot](http://www.canisius.edu/physics/index.dot)

### Qualifications
Students must maintain a 2.0 QPA 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 must have completed, with a grade of at least C, General Physics (PHY 223, 224, 225) and Mathematics through Differential Equations (MAT 222). To qualify for graduation with a degree in Physics, a grade of C- or higher is required in PHY 225, 226, and all 300- and 400-level Physics courses. 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.

### Learning Goals and Objectives
For learning goals and objectives please go to [http://www.canisius.edu/physics/learning-goals-objectives/](http://www.canisius.edu/physics/learning-goals-objectives/)

### Curricular Requirements for the Major
Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at [http://www.canisius.edu/academics/core/](http://www.canisius.edu/academics/core/)

### 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.

### Major Courses
**Major Course Requirements: (18 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>Electrodynamics, I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 331</td>
<td>Electrodynamics, II</td>
<td>3</td>
</tr>
<tr>
<td>PHY 332</td>
<td>Statistical and Thermal Physics</td>
<td></td>
</tr>
<tr>
<td>PHY 335-336</td>
<td>Mathematics for Physics I, II</td>
<td>4-4</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 445</td>
<td>Special Topics in Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHY 498</td>
<td>Senior Project</td>
<td>1-3</td>
</tr>
<tr>
<td>CHM 111</td>
<td>General Chemistry</td>
<td>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>
</tbody>
</table>
Major Electives
Computer Science and Mathematics courses are highly recommended as is PHY 301

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 SUNY @ Buffalo or Penn State, Erie. For those interested in Physics teaching, a Physics Education program is offered in conjunction with the education department. The Physics Club 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.

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</td>
<td>*Science Elective</td>
</tr>
<tr>
<td></td>
<td>*Science Elective-To be chosen from BIO 111, CHM 112, CSC 212, MAT 219 or MAT 351. The science elective may be taken in a subsequent semester if it requires a pre-requisite. In this case, take a course in the Core Curriculum in the Spring Semester of the Freshman year.</td>
<td></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>PHY 335</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>PHY 335</td>
<td></td>
</tr>
<tr>
<td>Senior</td>
<td>PHY 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 445 (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.

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:

<table>
<thead>
<tr>
<th>Four Required Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Course</strong></td>
</tr>
<tr>
<td>PHY 223</td>
</tr>
<tr>
<td>PHY 224</td>
</tr>
<tr>
<td>PHY 225</td>
</tr>
<tr>
<td>MAT 211</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:**

| PHY 330 | Electrodynamics I |
| PHY 331 | Electrodynamics II |
| PHY 332 | Statistical and Thermal Physics |
| PHY 443 | Classical Mechanics |
| PHY 447 | Quantum Mechanics |

**Note:** (i) PHY 331 requires PHY 330 as a prerequisite. (ii) PHY 336 is highly recommended for PHY 447, and PHY 335 is highly recommended as a co-requisite for PHY 330. (iii) PHY 443 requires MAT 222 as a pre-requisite.

**Group II:**

| PHY 226 | Basic Electronics |
| Two of PHY 350, 351, 445 | Advanced Lab (2) |
| MAT 222 | Differential Equations |
| PHY 335 | Mathematics for Physics I |
| PHY 336 | Mathematics for Physics II |
| CHM 301 | Classical Physical Chemistry |

**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: 2013 – 2015

**PHY 131 Earthquakes: Seismology and Society** 3 credits
The science behind earthquakes: causes, locations, frequency and measurement; affects on geography, human structures and society. (Field 6, Global Awareness). Fall

**PHY 133 Dinosaurs** 3 credits
An introduction to dinosaurs and their world through an examination of their anatomy, evolution, phylogeny, 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 and 201L General Physics I, with Lab** 3-1 credits
General Physics for biological-science students. Mechanics of rigid bodies, mechanics of fluids, thermal energy and thermodynamics. Pre-requisite: MAT 111 or 110. Lab required (i.e., 201L) with lecture (201).

**PHY 202 and 202L General Physics II, with Lab** 3-1 credits
Electricity and magnetism, geometrical and physical optics. Pre-requisite: PHY 201 with a grade of C- or higher. Lab required.

**PHY 223 and 223L General Physics for Physical Science Majors I, with Lab** 3-1 credits
Calculus-based general physics. Mechanics of rigid bodies. Pre-requisite: MAT 111 or 110. Lab required (i.e., 223L) with lecture (223).

**PHY 224 and 224L General Physics for Physical Science Majors II, with Lab** 3-1 credits
Electricity and magnetism, geometrical and physical optics. Pre-requisite: MAT 112 and PHY 223 with a grade of C- or higher. Lab required (i.e., 224L) with lecture (224).

**PHY 225 and 225L General Physics for Physical Science Majors III, with Lab** 3-1 credits
Mechanics of fluids, mechanical waves, thermodynamics and kinetic theory, geometrical and physical optics, special theory of relativity. Pre-requisite: MAT 211 and PHY 224 with a grade of C- or higher. Lab required (i.e., 225L) with lecture (225).
PHY 226 Basic Electronics 4 credits
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 3 credits
Geometric optics, interference, diffraction, fiber optics, laser system design, holographic metrology and non-linear optical phenomena. Prerequisites: MAT 222 and PHY 224. Offered irregularly.

PHY 330 Electrodynamics I 3 credits
Static and time-varying classical electric and magnetic fields in free-space and matter. Prerequisite: PHY 224. Prior completion of or concurrent registration for PHY 335 is strongly encouraged. Fall 2013-2 year cycle

PHY 331 Electrodynamics II 3 credits
Primary topic: electromagnetic waves in free-space and matter, beginning with the Maxwell equations. Additional topics: radiation and special relativity. Prerequisite: PHY 330. Spring 2014 - 2 year cycle

PHY 332 Statistical and Thermal Physics 3 credits
Develops statistical concepts and methods used to relate macroscopic to microscopic descriptions of many particle systems. Prerequisite: PHY 225. Fall 2014 – 2 year cycle

PHY 350 Modern Physics Laboratory 1 credit
This course covers the basic principles of 20th century modern physics. The topics include blackbody radiation, particle/wave duality, x-ray diffraction, Bohr’s model of the atom, quantum tunneling, and the Schrodinger equation. Prerequisite: PHY 225. Carries Advanced Writing Attribute. Fall

PHY 351 Advanced Laboratory 1 credit
This course emphasizes advanced experiments and experimental technique. Topics include, but are not restricted to, dosimetry, radiation detection, gamma-ray spectroscopy, Rutherford scattering, atomic spectroscopy, thin-film deposition, and magnetic resonance. Pre-requisite: PHY 225. Carries Oral Communication Attribute. Spring

PHY 443 Classical Mechanics 3 credits
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 2014 - 2 year cycle

PHY 445 Special Topics in Physics 1 credit
This course will cover model formation and development using archival journal articles in physics. The subject material will rotate by semester among topics such as astrophysics, quantum theory, and thermodynamics. Students will be expected to read and critique journal articles, lead discussions on journal articles, and trace the development of an area of physics through assigned readings. Enrollment is restricted to physics majors and minors with senior status, and by permission of instructor.

PHY 447 Quantum Mechanics 3 credits
Experimental basis of quantum mechanics, state functions, operators. Schrodinger’s equation and applications, parity, Dirac notation. PHY 336 is highly recommended. Spring 2015 - 2 year cycle

PHY 498 Senior Project 1-3 credits
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 3 credits
Prerequisite: Permission of department chair. Spring and Fall
Chair: John D. Occhipinti, PhD

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/political-science/index.dot

Students are encouraged to participate in the following experiences that are available through the Political Science Department:

• Mentoring for careers, graduate programs and law school.
• Visits to Congress and the Supreme Court.
• Travel to Europe for EuroSim: international student simulation of the European Union.
• Internships in Buffalo, Albany and Washington, D.C.
• Experiential learning: 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 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 and departmental Honors Program.
• Funding for travel and internship from the Fitzpatrick Institute.

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/political-science/learning-goals-objectives/

Qualifications
To complete the Political Science major, student 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 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, 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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.

Political Science Curriculum
Major course requirements (12 courses)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required course (7 courses)</td>
<td></td>
</tr>
<tr>
<td>PSC 103 American Constitution</td>
<td>3</td>
</tr>
<tr>
<td>PSC 104 American Political Process</td>
<td>3</td>
</tr>
<tr>
<td>PSC 111 Western Political Tradition</td>
<td>3</td>
</tr>
<tr>
<td>PSC 140 International Relations</td>
<td>3</td>
</tr>
<tr>
<td>PSC 150 Comparative Government and Politics</td>
<td>3</td>
</tr>
<tr>
<td>PSC 217 Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>PSC 401 Capstone (see course description for details)</td>
<td>11</td>
</tr>
</tbody>
</table>
Major Electives (5 courses)
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 prior approval, PSC 499 and All-College Honors theses directed by faculty members in the Political Science Department may be counted as major electives. Student are encouraged to pursue internships and earn credit for these via PSC 498, but these are pass-fail credits and may not be counted as major electives.

Additional Course Considerations
Aside from the provisions noted above for courses taken abroad, all required and elective courses in the major and minors must be taken at Canisius College. In general, PSC 103, 104, 140, and 150 may be taken in any sequence. It is strongly recommended that these four courses, along with PSC 111 and 217, be completed before the beginning of the junior year.

Resume Building
The Political Science Department assists students in finding internships that allow them to gain valuable professional experience and contacts. Positions are available in Washington and Albany, as well as in Western New York with political campaigns, local government, the U.S. House of Representatives and Senate, and the New York State Assembly and Senate.

The college’s many study abroad programs offer exciting opportunities to examine politics in other countries or pursue internships, such as with a Member of Parliament in the British House of Commons. Students may also take a limited number of their major electives while studying abroad.

Students may also participate in EuroSim, an international intercollegiate simulation of the European Union, attended by American and European delegations. In even-numbered years students engage in subsidized travel to Europe related to the simulation, and in odd-numbered years the event is held in the United States.

Opportunity for independent study under the guidance of a faculty member is available for juniors and seniors who wish to explore topics that go beyond the department’s normal course offerings.

Dual Majors
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 103 (3 credits)</td>
<td>PSC 104 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>PSC 150 (3 credits)</td>
<td>PSC 140 (3 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>PSC 111 (3 credits)</td>
<td>PSC Major Elective</td>
</tr>
<tr>
<td></td>
<td>PSC 217 (3 credits)</td>
<td>PSC Major Elective (300/400 level)</td>
</tr>
<tr>
<td>Junior</td>
<td>PSC Major Elective (300/400 level)</td>
<td>PSC Major Elective</td>
</tr>
<tr>
<td>Senior</td>
<td>PSC Major Elective</td>
<td>PSC 401 (1 credit)</td>
</tr>
</tbody>
</table>

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 an overview of the discipline.

<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>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 215, 237 or 334</td>
<td>Public-Policy</td>
<td>3</td>
</tr>
<tr>
<td>PSC 224, 225, 325 or 335</td>
<td>American Political Institutions and Behavior</td>
<td>3</td>
</tr>
</tbody>
</table>

Total (7 courses) 21

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):

<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 PSC 420</td>
<td>American Constitutional Law II</td>
<td>3</td>
</tr>
</tbody>
</table>

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.

Political Science and Law
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. The Political Science Department is the home for the college’s Raichle Pre-Law Center, which offers students mentoring, scholarship and internships. For further information, students should consult with the chair of the Political Science Department and the director of pre-law center.

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.
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 Sciences Courses: 2013-2015

PSC 103 American Constitution 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 201 American Political Humor 3 credits
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 3 credits
Selected policy issues and their relationship to the political process including health care, homeland security, welfare and housing. Fall

PSC 217 Research Methods 3 credits
Basic, non-statistical treatment of current techniques and methodologies which characterize political science research. Fall

PSC 224 Congress and the Legislative Process 3 credits
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 3 credits
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 3 credits
See CRJ 227 for course description. Fall

CRJ 228 Criminal Justice II 3 credits
See CRJ 228 for course description. Spring

PSC 233 Interest Groups and Public Opinion in America 3 credits
Development of the notions of opinion and interest, their transmission and their influence on decision-making. Fall

PSC 236 Political Campaigning 3 credits
Campaigning resources, techniques, strategies and goals. Practical and theoretical treatment. Field research. Spring

PSC 237 State and Local Politics 3 credits
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 3 credits
History and evolution of international human rights laws. Explores human rights violations, challenges for enforcing human rights and prosecuting abuses. Analysis of human rights conditions in different world regions. (Field 5, Global Awareness) Fall

PSC 242 International Organizations 3 credits
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 3 credits
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 3 credits
US diplomatic history since 1945. Structure, process and issues in contemporary American foreign relations. Fall

PSC 250 Politics in Latin America 3 credits
History of Latin America. Introduces the region’s political, economic, and social characteristics. In-depth analysis of issues and countries in the region. Spring

HIS 280 The Making of Modern Africa 3 credits
See HIS 280 for course description. Spring

PSC 320 American Constitutional Law I 3 credits
Development of constitutional law in the U.S. from the founding of the Republic to present. Case-study method in selected areas of constitutional jurisprudence. (Field 5, Justice Attribute) Fall

PSC 321 American Constitutional Law II: Civil Liberties 3 credits
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 3 credits
The various types of elections and electoral procedures and their relationship to voter turnout and voter choice. Fall

PSC 334 Public Administration 3 credits
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 3 credits
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 3 credits
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 338 Aid and Development 3 credits
Explores multilateral initiatives to help overcome poverty. Focuses on the global actors involved in such efforts such as international organizations, private donors, Non-Governmental Organizations (NGOs), among others. Spring

PSC 345 Transnational Crime After 9/11 3 credits

PSC 346 National Security Council 3 credits
Role-play simulation of the National Security Council. Student “policymakers” 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 3 credits
History of European integration. Structure, process and politics of EU policies. Optional international, intercollegiate simulation of the EU and travel (EuroSim). (Field 5, Global Awareness & Oral Communication Attribute) Fall

PSC 360 Political Economy of the Developing World 3 credits
Reviews the main theories on development. Explores the relationship between international and domestic factor in fostering development. Spring

PSC 370 Domestic Conflicts & Peace 3 credits
Examines the factors that account for domestic conflicts. Explores the different mechanisms for their resolution and the challenges faced by post-conflict societies. Fall

HIS 394 Contemporary Middle East 3 credits
See HIS 394 for course description. Spring

ECO 401 Public Finance 3 credits
See ECO 401 for course description. Fall

PSC 401 Capstone 1 credit
Integrative experience for senior majors. Allows students to demonstrate their proficiency in the discipline and prepares them for post-graduate education or employment. Team-taught. May be offered on-line. Spring

PSC 420 The Constitution, The War on Terror and Civil Liberties 3 credits
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 436 Seminar in Presidential Campaigning and Advance Work 3 credits
Political advance work in the context of contemporary American presidential campaigns. Prerequisite: Permission of instructor. Spring

PSC 442 Seminar in International Relations 3 credits
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 3 credits
Contemporary issues in Eastern and Western Europe. Concepts and theories of comparative politics and European integration and governance. Spring

PSC 498 Internship 3 credits
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 3 credits
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 PROGRAMS**

**Director:** Kenneth Scherkoske, PhD

**Introduction**
The 2+2 Pre-Engineering program covers the first two years of a four-year engineering major and is staffed by faculty from the Physics Department. After two years at Canisius students transfer to an Engineering School of their choice to complete 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 3+2 Dual-Degree 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 interested in advanced scientific or engineering study may be best served the by Dual-Degree Engineering and Physics program, while students clearly focused on a specific engineering discipline are encouraged to pursue the 2+2 program. 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. For a more detailed description of the program, faculty, [http://www.canisius.edu/physics/pre-engineering/index.dot](http://www.canisius.edu/physics/pre-engineering/index.dot)

**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 Curriculum**
Students in the 3+2 Dual-Degree program complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at [http://www.canisius.edu/academics/core/](http://www.canisius.edu/academics/core/)

**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.

**Learning Goals and Objectives**
For learning goals and objectives please go to [http://www.canisius.edu/physics/learning-goals-objectives/](http://www.canisius.edu/physics/learning-goals-objectives/)
2+2 Program

Major Courses
This varies depending on the engineering major chosen, but typically includes:

<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>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 222</td>
<td>Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>CHM 111</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>CHM 112</td>
<td>General Chemistry II (or PHY 225)</td>
<td>4</td>
</tr>
<tr>
<td>PHY 223</td>
<td>Physics I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 224</td>
<td>Physics II</td>
<td>4</td>
</tr>
<tr>
<td>PHY 225</td>
<td>Physics III (or CHM 112)</td>
<td>4</td>
</tr>
<tr>
<td>PHY 226</td>
<td>Introduction to Electronics</td>
<td>4</td>
</tr>
<tr>
<td>EGR 111</td>
<td>Introduction to Engineering Design</td>
<td>3</td>
</tr>
<tr>
<td>EGR 207</td>
<td>Engineering Statics</td>
<td>3</td>
</tr>
<tr>
<td>EGR 208</td>
<td>Engineering Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>EGR 214</td>
<td>Strength of Materials</td>
<td>3</td>
</tr>
<tr>
<td>EGR 211</td>
<td>Engineering Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>CSC 107</td>
<td>Computer Programming for Science</td>
<td>4</td>
</tr>
</tbody>
</table>

Major Electives
Linear Algebra (MAT 219) (4), Additional computer science (CSC 111, CSE 101) (4-3) and/or Organic Chemistry (CHM 227, CHM 228) (4-4), depending on choice of engineering major.

Major Experiences
Students complete the first two years of an engineering program in Canisius’ Liberal Arts environment, taking advantage of small class sizes and individual attention before transferring to a larger institution to complete their studies. Course work at Canisius is just as rigorous and demanding as at Engineering institutions, so students typically report little difficulty adapting to the transfer. Early consultation with an advisor is required to map out a curriculum, as the choice of desired engineering major will alter the course schedule somewhat. Mathematical preparation is key to timely completion of this program, again requiring close attention to course scheduling.

Recommended Schedule: 2+2 program

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td></td>
</tr>
<tr>
<td>CHM 111</td>
<td>CHM 112/ Elective*</td>
</tr>
<tr>
<td>4 credits</td>
<td>4 credits</td>
</tr>
<tr>
<td>EGR 111</td>
<td>MAT 112</td>
</tr>
<tr>
<td>3 credits</td>
<td>4 credits</td>
</tr>
<tr>
<td>CSC 107</td>
<td>PHY 223</td>
</tr>
<tr>
<td>4 credits</td>
<td>4 credits</td>
</tr>
<tr>
<td>MAT 111</td>
<td>*If PHY 225 will be taken</td>
</tr>
<tr>
<td>4 credits</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td></td>
</tr>
<tr>
<td>MAT 211</td>
<td>MAT 222</td>
</tr>
<tr>
<td>4 credits</td>
<td>4 credits</td>
</tr>
<tr>
<td>PHY 224</td>
<td>PHY 225/ Elective*</td>
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<tr>
<td>4 credits</td>
<td>4 credits</td>
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<tr>
<td>EGR 211</td>
<td>EGR 208</td>
</tr>
<tr>
<td>3 credits</td>
<td>3 credits</td>
</tr>
<tr>
<td>EGR 207</td>
<td>EGR 214</td>
</tr>
<tr>
<td>3 credits</td>
<td>3 credits</td>
</tr>
<tr>
<td>*If CHM 112 was taken</td>
<td></td>
</tr>
<tr>
<td>Junior Year</td>
<td>Completed at an Engineering Institution</td>
</tr>
<tr>
<td>Senior Year</td>
<td>Completed at an Engineering Institution</td>
</tr>
</tbody>
</table>

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.

3+2 Program

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>Electrodynamics I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 331</td>
<td>Electrodynamics II</td>
<td>3</td>
</tr>
<tr>
<td>PHY 332</td>
<td>Statistical and Thermal Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHY 335-336</td>
<td>Mathematics for Physics, I,II</td>
<td>4-4</td>
</tr>
<tr>
<td>PHY 350-351</td>
<td>Advance Laboratory</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 445</td>
<td>Special Topics in Physics</td>
<td>1</td>
</tr>
<tr>
<td>PHY 498</td>
<td>Senior Project</td>
<td>1-3</td>
</tr>
<tr>
<td>CHM 11</td>
<td>General Chemistry I</td>
<td>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>
</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 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.
Recommended Schedule: 3+2 Program

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>CHM 111</td>
<td>4</td>
<td>CHM 112/</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Elective*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MAT 111</td>
<td>4</td>
<td>MAT 112</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CSC 107</td>
<td>4</td>
<td>PHY 223</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>EGR 111</td>
<td>3</td>
<td>*If PHY 225 will be</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>taken</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>MAT 211</td>
<td>4</td>
<td>MAT 222</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>PHY 224</td>
<td>4</td>
<td>PHY 225/</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Elective*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EGR 207</td>
<td>3</td>
<td>PHY 226</td>
<td>4</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>*If CHM 112 was taken</td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>EGR 211</td>
<td>3</td>
<td>EGR 214</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Fall Physics courses in Physics</td>
<td></td>
<td>Spring Physics courses in Physics Curriculum</td>
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</tr>
<tr>
<td></td>
<td>Curriculum</td>
<td></td>
<td>Curriculum</td>
<td></td>
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</tbody>
</table>

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.

Pre-Engineering Courses: 2013 - 2015

**EGR 111 Introduction to Engineering Design** 3 credits
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** 3 credits
Fundamental concepts and laws of thermodynamics, equilibrium. Applications to physical and chemical systems. Prerequisite: PHY 223. **Fall**

**EGR 207 Engineering Statics** 3 credits
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** 3 credits
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** 3 credits
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**

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.
**PROFESSIONAL AND TECHNICAL STUDIES**

**Director: Sandra McKenna**

**Introduction**
The Professional and Technical Studies (PTS) completion degree is designed for graduates with an Associate's degree from accredited community or technical colleges to transfer into Canisius with a total of 60 credit hours.
Canisius will also accept applicants who have not completed a two-year degree. The number of transfer credits accepted will be determined on a case-to-case basis. Students will still be required to fulfill the minimum of 120 credits needed to earn a bachelor's degree. The completion of the Canisius core curriculum will be required within those credit hours. The Canisius core curriculum is an interdisciplinary study of science, social science, and humanities that best represents the goals and values of a Jesuit education. The balance of the core curriculum will be free elective courses, which a student may use in multiple ways to their advantage.

**Qualifications**
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 Curriculum**
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at [http://www.canisius.edu/academics/core/](http://www.canisius.edu/academics/core/)

**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.
For a more detailed description of the program and tuition fee structure please go to [http://www.canisius.edu/professional-technical/index.dot](http://www.canisius.edu/professional-technical/index.dot)
PSYCHOLOGY

Chair: Susan K. Putnam, PhD

Introduction
For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/psychology/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/psychology/learning-goals-objectives/

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 freshman students will be assigned to our freshman advisor. After completing their first year, they will select a faculty member to serve as their psychology major advisor. Students 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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>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 1: 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 Psychology</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

<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 credits)</td>
<td>PSY 102 (3 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>PSY 201 (3 credits)</td>
<td>PSY 202 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>Psychology core</td>
<td>Psychology core</td>
</tr>
<tr>
<td>Junior</td>
<td>Psychology core</td>
<td>Psychology elective</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.

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: 2013 - 2015

PSY 101 Introduction to Psychology 3 credits
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 3 credits
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 3 credits
Descriptive statistics, probability, sampling distributions, hypothesis testing and inferential statistics. SPSS for Windows. Fall and Spring

PSY 202 Experimental Psychology 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
Physiological, psychological and emotional factors in achieving maturity. Focuses on time frame from pre-puberty to emerging adulthood. Extension of theoretical orientation to adolescent problems. Emphasis on real world problems and solutions. Spring

PSY 310 Applied Behavior Analysis 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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 3 credits
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
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 334</td>
<td>Child, Family and Community Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Effects of social and non-social environments on emotions,</td>
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</tr>
<tr>
<td></td>
<td>thoughts and behaviors. Psychological reactions and</td>
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<tr>
<td></td>
<td>adjustments to the nature of community life. Deals with</td>
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<tr>
<td></td>
<td>social problems such as AIDS, alcoholism and child and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>elder abuse. (Also counts for CRJ credit.)</td>
<td>Fall</td>
</tr>
<tr>
<td>PSY 369</td>
<td>Forensic Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Psychology’s role in the legal system: criminal behavior,</td>
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<tr>
<td></td>
<td>trial process (competency evaluation, psychologists as expert</td>
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<tr>
<td></td>
<td>witnesses, jury selection, jury deliberation, insanity</td>
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<tr>
<td></td>
<td>defense), law enforcement and corrections, family law (divorce,</td>
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<tr>
<td></td>
<td>domestic violence, child custody). (Also counts for CRJ</td>
<td></td>
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<tr>
<td></td>
<td>credit.)</td>
<td>Fall</td>
</tr>
<tr>
<td>PSY 373</td>
<td>Behavior Modification</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Application of conditioning principles to changing human</td>
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<tr>
<td></td>
<td>behavior and cognitions, emphasis on practical problems.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fall</td>
</tr>
<tr>
<td>PSY 384</td>
<td>Child Psychopathology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>This course will introduce students to the signs and</td>
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<tr>
<td></td>
<td>symptoms of various psychiatric disorders of childhood and</td>
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<tr>
<td></td>
<td>adolescence (e.g., conduct disorder, ADHD).</td>
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<td></td>
<td></td>
<td>Spring</td>
</tr>
<tr>
<td>PSY 391</td>
<td>Biopsychology of Stress</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Examines the physiological and psychological components</td>
<td></td>
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<tr>
<td></td>
<td>and effects of stress, including the involvement of the</td>
<td></td>
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<tr>
<td></td>
<td>nervous, immune and endocrine systems.</td>
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<tr>
<td></td>
<td></td>
<td>Fall</td>
</tr>
<tr>
<td>PSY 395</td>
<td>Assessment in the Behavioral Sciences</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Addresses fundamentals of classic test theory, scaling,</td>
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<tr>
<td></td>
<td>reliability, and validity and provides an overview of</td>
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</tr>
<tr>
<td></td>
<td>measures of intelligence, achievement, and personality for</td>
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</tr>
<tr>
<td></td>
<td>clinical, educational, and research use. Prerequisite: PSY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>201</td>
<td>Fall</td>
</tr>
<tr>
<td>PSY 397</td>
<td>Neurobiology of Mental Disorders</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Examines the role of the central nervous system and other</td>
<td></td>
</tr>
<tr>
<td></td>
<td>biological factors underlying the symptoms, etiology and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>treatment of various mental disorders.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fall</td>
</tr>
<tr>
<td>PSY 398</td>
<td>Neurobiology of Childhood Mental Disorders</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>A sequel to the Neurobiology of Mental Disorders course</td>
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</tr>
<tr>
<td></td>
<td>that is currently being offered. This course will focus on</td>
<td></td>
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<tr>
<td></td>
<td>the neurobiological underpinnings of several developmental</td>
<td></td>
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<tr>
<td></td>
<td>and other mental disorders affecting children today. PSY</td>
<td></td>
</tr>
<tr>
<td></td>
<td>397 or Behavioral Neuroscience/Neuropsychology course is</td>
<td></td>
</tr>
<tr>
<td></td>
<td>a prerequisite.</td>
<td>Spring</td>
</tr>
<tr>
<td>PSY 401</td>
<td>Advanced Statistics Seminar</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Topics include bivariate and multiple regression,</td>
<td></td>
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<tr>
<td></td>
<td>least-squares estimation, model-building techniques,</td>
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<tr>
<td></td>
<td>assumptions and diagnostics, mediation and moderation,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>the logistic model and exploratory factor analytic</td>
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<tr>
<td></td>
<td>techniques. SPSS will be used throughout. Students will</td>
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<tr>
<td></td>
<td>conduct a final research project through secondary analysis</td>
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<tr>
<td></td>
<td>of a large national data set.</td>
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<tr>
<td></td>
<td></td>
<td>Spring</td>
</tr>
<tr>
<td>PSY 406</td>
<td>Selected Topics in Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Current and advanced topics which may vary from semester</td>
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</tr>
<tr>
<td></td>
<td>to semester will be covered in this seminar.</td>
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<td></td>
<td></td>
<td>Spring</td>
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<tr>
<td>PSY 406</td>
<td>Positive Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Seminar course focusing on topics such as happiness,</td>
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<tr>
<td></td>
<td>optimism, resilience and courage. Considers what makes a</td>
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<tr>
<td></td>
<td>life meaningful and ways to achieve a positive life.</td>
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<tr>
<td></td>
<td></td>
<td>Spring</td>
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<tr>
<td>PSY 410</td>
<td>Fundamentals of Human Neuropsychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>An advanced course that provides students with a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>perspective on the neural mechanisms underlying behavior.</td>
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<tr>
<td></td>
<td>Material covered in the course will include (but not be</td>
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<tr>
<td></td>
<td>limited to) structure and function of the brain from the</td>
<td></td>
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<tr>
<td></td>
<td>cellular to the structural levels, brain imaging techniques,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and brain development, plasticity and neurological</td>
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<tr>
<td></td>
<td>disorders.</td>
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<td></td>
<td></td>
<td>Spring</td>
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<tr>
<td>PSY 431</td>
<td>Sensation and Perception</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>This course is an introduction to sensory systems and</td>
<td></td>
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<tr>
<td></td>
<td>perceptual processes. Course focuses on each of the major</td>
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</tr>
<tr>
<td></td>
<td>sensory systems, beginning with the anatomy and physiology</td>
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</tr>
<tr>
<td></td>
<td>of the sense organ, and builds up to how we represent that</td>
<td></td>
</tr>
<tr>
<td></td>
<td>information in the mind.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spring</td>
</tr>
</tbody>
</table>
PSY 452 Techniques of Counseling 3 credits
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 3 credits
The theoretical background of selected counseling techniques. (Psychodynamic, behavioral, family systems) Students will form their own personal theories. Spring

PSY 495 Research Seminar in Psychology 3 credits
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, PSY 497, junior or senior status and permission of instructor. Summer, Spring & Fall

PSY 497 Advanced Experimental Research 3 credits
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 & Fall

PSY 498 A-G Psychology Practicum 3 credits
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 & Fall

Please click on this link to find out how to register for a practicum http://canisiuspsychology.net/psychwiki/PracticumRequirements

PSY 499 Independent Study 3 credits
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. Summer, Spring & Fall
RELIGIOUS STUDIES AND THEOLOGY

Chair: Patrick J. Lynch, SJ

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/religious-studies/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/religious-studies/learning-goals-objectives/

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

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 Course in a non-Christian contemporary religion</td>
<td>3</td>
<td></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.

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 credits)</td>
<td>RST 200 (3 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>RST 201 (3 credits)</td>
<td>RST Course in a non-Christian contemporary religion (3 credits)</td>
</tr>
<tr>
<td></td>
<td>RST Elective (3 credits)</td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>RST 400 (3 credits)</td>
<td>RST Elective (3 credits)</td>
</tr>
<tr>
<td></td>
<td>RST Elective (3 credits)</td>
<td>RST Elective (3 credits)</td>
</tr>
<tr>
<td>Senior</td>
<td>RST 489 (3 credits)</td>
<td>RST Elective (3 credits)</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.

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 two specialty areas: Christian History, Thought, and Ethics; Religions of the World.

Note: Inter disciplinary 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.


Introductory Level

RST 101 Introduction to Religious Studies and Theology 3 credits

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 credits
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 credits
Introduction to the literature and background of the New Testament. Field 1

RST 205 Reading the Bible: Literary and Theoretical Approaches 3 credits
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 credits
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 credits
Historical study of Eastern Christian Churches. Field 1, Global Awareness

RST 220 Introduction to Eastern Religions 3 credits
History, meaning, and practice of living religions such as Hinduism, Buddhism, and Islam. Field 1, Global Awareness

RST 221 Native American Religions 3 credits
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 credits
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 credits
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

RST 226 Hinduism 3 credits
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, Global Awareness

RST 228 Introduction to Mahayana Buddhism 3 credits
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

RST 229 Religious Perspectives on Animals 3 credits
This course will focus on the historical and cultural relationship between the world’s religions and the animal realm. Field 1

RST 230 Catholic Belief Today 3 credits
Scripture and tradition. the Trinity, incarnation, grace, sacramental life, and worship. The Church as community and structure. Field 1

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 modern society. Field 1

RST 234 Christians (En)Countering Injustice: Analyzing Justice, Injustice, & Opportunities for Action 3 credits
An examination of Christian concepts of justice and a consideration of how to build or restore justice when injustices occur. Service learning required. Field 1, Justice
RST 235 Religion and Politics 3 credits
Interaction of religion and politics in the United States and other cultures. Field 1, Justice, Oral Communication

RST 236 Theology and Foreign Film 3 credits
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

RST 237 Images of Jesus in Film and Art 3 credits
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

RST 240 Development of Jewish Religious Thought and Practice 3 credits
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

RST 251 Greek Exegesis 3 credits
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.

RST 252 Biblical Hebrew 3 credits
Introductory course for students with no prior Hebrew language experience. Study of the Torah text. Taught as a private study. Prerequisite: Permission of instructor.

HIS 302 Life and Theology in the Colonial Atlantic World 3 credits
See HIS 302 for course description. Field 1

HIS 306 The American Religious Experience 3 credits
See HIS 306 for course description. Field 1

CLS 308 Pagans and Christians 3 credits
See CLS 308 for course description. Field 1

CLS 309 Greek and Roman Religion 3 credits
See CLS 309 for course description. Field 1, Global Awareness, Oral Communication

PSY 230 Psychology of Religion 3 credits
See PSY 230 for course description. Field 1

RST 311 Paul’s New Testament Epistles and His Churches 3 credits
Survey of St. Paul’s theology and mission, the variety and controversies of the early church. Field 1

RST 314 New Testament in Literature and Art 3 credits
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

RST 322 Women Reading the Bible: Feminist Approaches to the Scripture 3 credits
Examination of the varieties of feminist, scholarly approaches to the Jewish and Christian Bibles. Field 1

RST 325 Early Christianity 3 credits
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

RST 326 Medieval, Renaissance, and Reformation Christianity 3 credits
Historical study of life, thought, and worship of the Christians during the medieval, renaissance, and reformation periods. Field 1

RST 327 Modern Global Christianity 3 credits
Historical study of the life, thought, and worship of Christians, both Protestant and Catholic, from the Reformation to the present. Field 1

RST 328 Jesuits: History, Spirituality, Culture 3 credits
Life and spirituality of St. Ignatius of Loyola. History of Jesuits. Field 1, Oral Communication

RST 340 Moral Issues Today 3 credits
An inquiry into religious and secular approaches to morality and the issues raised by specific moral problems. Field 1, Ethics
RST 341 Catholic Social Ethics: Theological Perspectives 3 credits
Study of the principles of Catholic Social Teachings articulated in papal and episcopal documents with contemporary applications. Field 1, Justice, Writing

RST 342 Theological Ethics and Environmental Justice 3 credits
Investigation of the models of theological ethics and the ways in which ethics informs human interaction with the environment. Field 1, Ethics, Oral Communication

RST 343 Religion and the Challenge of Science 3 credits
Traces the emergence of science as independent from and a challenge to the religious world view. Field 1

RST 345 Bio-Moral Problems 3 credits
Considers a number of problem areas such as genetic intervention, medical experimentation, behavior control, organ transplants, resource allocation, and death and dying. Field 1, Ethics

RST 350 Christian Concept of God 3 credits
Concept of God in light of Biblical faith. Historical development and modern approaches to the Christian doctrine of God. Field 1

RST 351 Freedom, Sin and Grace 3 credits
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 credits
Study of the Church, its mission, and structure. Field 1

RST 353 Seven Signs of Love 3 credits
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 credits
An historical-theological inquiry into the person of Jesus of Nazareth. Field 1

RST 355 The Problem of Suffering 3 credits
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 credits
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 credits
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 362 Fundamentalism 3 credits
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 credits
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 credits
Historical, analytical, and appreciative study of the fundamental principles and development of Christian ascetical theology. Field 1

RST 366 Theology of Death 3 credits
RST 399A Christian Marriage 3 credits
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 credits
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 credits
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.

RST 399D Catholic Concept of Conscience 3 credits
Study of the Catholic understanding of conscience during the past 50 years. Discussion of both personal and public ethics. 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 credits
A seminar for RST majors and minors, focusing on the history of the theory and method in the academic study of religion. Fall 2013, Fall 2015

RST 406 Special Topics in Religious Studies and Theology 3 credits
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 credits
Concentrated investigation of a topic of particular interest to the student, under supervision of faculty advisor. Prerequisite: Departmental approval. Fall, Spring

RST 496 Internship 2 or 3 credits
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 credits
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: [http://www.canisius.edu/academics/core/](http://www.canisius.edu/academics/core/)

2. Major course requirements (21 courses)

<table>
<thead>
<tr>
<th>Course Requirements</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Basic social sciences: four courses each from four of the following departments, for a total of 16 courses:</td>
<td>(48 credits)</td>
</tr>
<tr>
<td>Anthropology: ANT 121-122 plus two 300/400 level courses</td>
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</tr>
<tr>
<td>Communication Studies: two of the following: COM 201, 202, 203, 204, 205, 206, plus two 300/400 level courses</td>
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</tr>
<tr>
<td>Economics: ECO 101-102, plus two 300/400 level courses</td>
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<tr>
<td>History: HIS 123-124, plus two 300/400 level courses</td>
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</tr>
<tr>
<td>Political Science: PSC 103-104 plus two 300/400 level courses</td>
<td></td>
</tr>
<tr>
<td>Psychology: PSY 101-102, plus two Psychology courses above 100 level</td>
<td></td>
</tr>
<tr>
<td>Sociology: SOC 110 and SOC 111, Plus two 300/400 level courses</td>
<td></td>
</tr>
<tr>
<td>Three additional 300/400 level courses in one of the chosen departments: Interdisciplinary courses may be substituted for one or more department courses</td>
<td>9 credits</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 [http://www.canisius.edu/academics/core/](http://www.canisius.edu/academics/core/)

2. Major course requirements (8 courses)

<table>
<thead>
<tr>
<th>Course Requirements</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Sciences Track</td>
<td></td>
</tr>
<tr>
<td>MAT 106 Calculus for the Non-Sciences I</td>
<td>3 credits</td>
</tr>
<tr>
<td>MAT 131 Statistics and Computers</td>
<td>3 credits</td>
</tr>
<tr>
<td>Social Sciences electives - two courses from each of three areas: Economics (ECO 101-102) Political Science (PSC 101-102) Psychology (PSY 101-102) Sociology (SOC 110-111 or ANT 121-122)</td>
<td>18 credits</td>
</tr>
<tr>
<td>MAT 131 Statistics and Computers</td>
<td>3 credits</td>
</tr>
<tr>
<td>Three additional 300/400 level courses in one of the chosen departments: Interdisciplinary courses may be substituted for one or more department courses</td>
<td>9 credits</td>
</tr>
<tr>
<td>Social Sciences methods: PSC 217, SOC 342, or URS 350 or ANT 351</td>
<td>3 credits</td>
</tr>
</tbody>
</table>
### Business Track

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>QNT 101 Quantitative Methods for Business</td>
<td>3</td>
</tr>
<tr>
<td>MAT 106 Calculus for the Non-Sciences I</td>
<td>3</td>
</tr>
<tr>
<td>ECO 101 Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ACC 201 Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC 202 Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Electives (2 courses from the business core)</td>
<td></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 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 dean in the College of Arts and Sciences.
Chair: Patricia E. Erickson, PhD

**Sociology**

**Introduction**
Sociology is the study “of our behavior as social beings, covering everything from the analysis of short contacts between anonymous individuals on the street to the study of global social processes (asanet.org).” We hold that social forces external to the individual play an important role in shaping behavior and beliefs. Included in these mysterious sounding ‘social forces’ are the economic and political make-up of society, and cultural influences like our beliefs, habits, and values. The sociology major prepares students for a wide variety of careers and graduate fields, including sociology, social work, planning, public administration, education, health, business, and law.

For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to [http://www.canisius.edu/sociology/index.dot](http://www.canisius.edu/sociology/index.dot)

**Learning Goals and Objectives**
For learning goals and objectives please go to [http://www.canisius.edu/sociology/learning-goals-objectives/](http://www.canisius.edu/sociology/learning-goals-objectives/)

**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 should consult with their advisor for current advisement information. Students should 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 [http://www.canisius.edu/academics/core/](http://www.canisius.edu/academics/core/)

**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>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 111</td>
<td>Contemporary Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>SOC 342</td>
<td>Research Methods</td>
<td>4</td>
</tr>
<tr>
<td>SOC 432</td>
<td>Theories in Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 461</td>
<td>Senior Capstone</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Six 3 credit sociology electives (18 credit hours)</td>
<td></td>
</tr>
<tr>
<td>SOC 234</td>
<td>Environment and Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 240</td>
<td>Sociology of Religion</td>
<td>3</td>
</tr>
<tr>
<td>SOC 273</td>
<td>Social Movements and Social Change</td>
<td>3</td>
</tr>
<tr>
<td>SOC 291</td>
<td>Gender and Society</td>
<td>3</td>
</tr>
<tr>
<td>SOC 299</td>
<td>Immersion Reflection</td>
<td>1</td>
</tr>
<tr>
<td>SOC 300</td>
<td>Special Topics in Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 324</td>
<td>Visual Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SOC 340</td>
<td>Sociology of the City</td>
<td>3</td>
</tr>
<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 Methods</td>
<td>3</td>
</tr>
</tbody>
</table>

362 CANISIUS COLLEGE
The following courses in the other departments count as electives for the sociology major. No more than 2 will count towards 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>

**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 credits)</td>
<td>SOC 111 (3 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>MAT 131 (3 credits)</td>
<td>SOC Elective (3 credits)</td>
</tr>
<tr>
<td>Junior</td>
<td>SOC 342 (4 credits)</td>
<td>SOC Elective (3 credits)</td>
</tr>
<tr>
<td>Senior</td>
<td>SOC 432 (3 credits)</td>
<td>SOC 461 (1 credits)</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.

**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. Premed 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 also supports the interdisciplinary minor in Peace and Justice Studies.
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 with and for others.

Sociology Courses: 2013-2015

SOC 110 Introduction to Sociology
3 credits
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 credits
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 credits
Explores connections between environmental issues and their social causes and consequences. Topics of analysis include environmental racism, environmental health, risk and uncertainty, political economy, globalization and sustainability. (Field 5)

SOC 240 Sociology of Religion
3 credits
A comprehensive introduction to the sociology of religion, from the classical works of Emile Durkheim and Max Weber, to the current trends of secularization and revitalization. Will also cover sociological analysis of religion in America.

SOC 273 Social Movements and Social Change
3 credits
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 credits
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 credit
Critical reflection of immersion experience. Permission of instructor required. Spring and Fall

SOC 300 Special Topics in Sociology
3 credits
Critical examination of a selected topic in sociology. Subject matter determined by the instructor. Fall and Spring

SOC 324 Visual Sociology
3 credits
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 340 Sociology of the City
3 credits
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 credits
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
4 credits
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 credits
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 credits
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 461 Departmental capstone 1 credit
Integrating experience for majors; focus is on demonstrating proficiency in the discipline and preparation for post-graduate studies or employment. Required for class of 2017 and beyond; replaces SOC 450.

SOC 498 Internship 3 credits
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 credits
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
ANTHROPOLOGY

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/anthropology/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/anthropology/learning-goals-objectives/

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 their academic advisor 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 http://www.canisius.edu/academics/core/

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
The department encourages anthropology majors to study a foreign language of their choice and to participate in the college study abroad program.

Major Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 121</td>
<td>Biological Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 122</td>
<td>Sociocultural Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 201</td>
<td>The Science of Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td>Contemporary Linguistics</td>
<td></td>
</tr>
<tr>
<td>ANT 250</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANT 230</td>
<td>Introduction to Archeology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 351</td>
<td>Qualitative Research Methods</td>
<td>3</td>
</tr>
<tr>
<td>ANT 461</td>
<td>Senior Capstone</td>
<td>1</td>
</tr>
</tbody>
</table>

Major Electives:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 240</td>
<td>Anthropology &amp; Film</td>
<td>3</td>
</tr>
<tr>
<td>ANT 290</td>
<td>Anthropology &amp; Evolution</td>
<td>3</td>
</tr>
<tr>
<td>ANT 300</td>
<td>Special Topics in Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>ANT 310</td>
<td>Codebreaking</td>
<td>3</td>
</tr>
<tr>
<td>ANT 333</td>
<td>Forensic Anthropology</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>ANT 370</td>
<td>Origin and Evolution of Language</td>
<td>3</td>
</tr>
<tr>
<td>ANT 399</td>
<td>Field Work</td>
<td>3</td>
</tr>
<tr>
<td>ANT 499</td>
<td>Individual Reading and Research</td>
<td>3</td>
</tr>
</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 credits)</td>
<td>ANT 122 (3 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>ANT 230 (3 credits)</td>
<td>ANT 201 (3 credits) or ANT 250 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ANT elective (3 credits)</td>
<td>ANT elective (3 credits)</td>
</tr>
<tr>
<td>Junior</td>
<td>ANT 351 (3 credits)</td>
<td>ANT elective (3 credits)</td>
</tr>
<tr>
<td></td>
<td>ANT elective (3 credits)</td>
<td>ANT 451 (3 credits) when offered</td>
</tr>
<tr>
<td>Senior</td>
<td>ANT elective (3 credits)</td>
<td>ANT 451 (3 credits) when offered</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ANT 461 (1 credit)</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. 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, classics, fine arts, 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, and three ANT electives. Students must complete the minor request form.

### Anthropology Courses: 2013-2015

#### ANT 121 Biological Anthropology 3 credits
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 3 credits
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) Fall

#### ANT 201 The Science of Linguistics 3 credits
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)

#### ANT 230 Introduction to Archaeology 3 credits
Introduction to the principles, methods, and theoretical approaches of modern archaeology; overview of history and practice of archaeology; how the past is reconstructed; origin of culture and development of social complexity. (Field 5, Global Awareness Attribute) Fall

#### ANT 240 Anthropology & Film 3 credits
A critical survey of both documentary and commercial films on themes in anthropology, e.g. human evolution, ape behavior, socio-cultural change, and the significance of symbolic language for adaptation and survival. Stresses the value of both facts and concepts in an anthropological view of our species. Spring

#### ANT 250 Contemporary Linguistics 3 credits
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
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 251</td>
<td>Anthropology and Evolution</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Concept of evolution in the five major areas of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>anthropology: biological, archaeology, sociocultural,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>linguistics, and applied anthropology. This course</td>
<td></td>
</tr>
<tr>
<td></td>
<td>stresses the value of empirical evidence and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>critical thinking. (Field 5)</td>
<td></td>
</tr>
<tr>
<td>ANT 300</td>
<td>Special Topics in Anthropology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Critical examination of a selected topic in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>anthropology. Subject matter determined by the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>instructor.</td>
<td></td>
</tr>
<tr>
<td>ANT 310</td>
<td>Codebreaking</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>The evolution of codes and the relevance of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>codes to contemporary society. Covers the history</td>
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</tr>
<tr>
<td></td>
<td>of codes and the achievements of code breakers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>who deciphered ancient texts. Students will</td>
<td></td>
</tr>
<tr>
<td></td>
<td>acquire and practice skills needed to identify</td>
<td></td>
</tr>
<tr>
<td></td>
<td>structural components of codes.</td>
<td></td>
</tr>
<tr>
<td>ANT 333</td>
<td>Forensic Anthropology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Anthropological methods and information used to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>survey the origin and history of crime science.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Emphasis on the use of well-known case studies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>in order to understand and appreciate the value</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of forensic investigation.</td>
<td></td>
</tr>
<tr>
<td>ANT 351</td>
<td>Qualitative Research Methods</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Survey of research designs from a qualitative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>perspective, including field research,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>participant observation, content analysis,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ethnomethodology, and focus groups. Analysis and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>reporting of qualitative data.</td>
<td></td>
</tr>
<tr>
<td>ANT 355</td>
<td>Sociolinguistics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Investigates the nature of the relationship</td>
<td></td>
</tr>
<tr>
<td></td>
<td>between social behavior and language change</td>
<td></td>
</tr>
<tr>
<td></td>
<td>within linguistic communities.</td>
<td></td>
</tr>
<tr>
<td>ANT 360</td>
<td>African American English</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Explores the development and the structure of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>dialects of African American English, identifying</td>
<td></td>
</tr>
<tr>
<td></td>
<td>phonological, morphological, syntactic, semantic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and lexical differences that contribute to the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>richness and vitality of the language.</td>
<td></td>
</tr>
<tr>
<td>ANT 365</td>
<td>Gender Issues in Language</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Explores the intersection of language and gender,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>examining gender-related stylistic variation in</td>
<td></td>
</tr>
<tr>
<td></td>
<td>conversation and communication between and among</td>
<td></td>
</tr>
<tr>
<td></td>
<td>women and men as cross-cultural communication.</td>
<td></td>
</tr>
<tr>
<td>ANT 370</td>
<td>Origin and Evolution of Language</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Surveys theories of the origin and development</td>
<td></td>
</tr>
<tr>
<td></td>
<td>of language, exploring early perspectives drawn</td>
<td></td>
</tr>
<tr>
<td></td>
<td>from mythology, religion and philosophy as well</td>
<td></td>
</tr>
<tr>
<td></td>
<td>as current views emerging from the social and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>natural sciences.</td>
<td></td>
</tr>
<tr>
<td>ANT 399</td>
<td>Field Work</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Offers practical experience in a variety of</td>
<td></td>
</tr>
<tr>
<td></td>
<td>social situations and cultural settings.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Observations and research logs are used to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>provide a basis for analysis. Prerequisite:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Permission of department chair.</td>
<td></td>
</tr>
<tr>
<td>ANT 461</td>
<td>Departmental capstone</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Integrating experience for majors; focus is on</td>
<td></td>
</tr>
<tr>
<td></td>
<td>demonstrating proficiency in the discipline and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>preparation for post-graduate studies or</td>
<td></td>
</tr>
<tr>
<td></td>
<td>employment. Required for class of 2017 and</td>
<td></td>
</tr>
<tr>
<td></td>
<td>beyond; replaces ANT 451.</td>
<td></td>
</tr>
<tr>
<td>ANT 499</td>
<td>Individual Reading and Research</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Independent studies allow in-depth study of a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>specific topic and are most often reserved for</td>
<td></td>
</tr>
<tr>
<td></td>
<td>seniors who cannot otherwise fulfill a graduation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>requirement. Prerequisite: Permission of the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>instructor, department chair and associate dean.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fall and Spring</td>
<td></td>
</tr>
</tbody>
</table>
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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/criminal-justice/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/criminal-justice/learning-goals-objectives/

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 http://www.canisius.edu/academics/core/

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>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 or Qualitative Research Methods</td>
<td>4</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>
</tr>
<tr>
<td>CRJ 461</td>
<td>Senior Capstone</td>
<td>1</td>
</tr>
</tbody>
</table>

Criminal Justice Electives: three courses

| Major Electives |
|-----------------|-----------------|
| CRJ 280 | Language for Legal Professions | 3 |
| CRJ 300 | Special Topics in Criminal Justice | 3 |
| CRJ 330 | Current Issues in Forensic Psychology | 3 |
| CRJ 337 | Violence and the Family | 3 |
| CRJ 344 | Violent Crime in American Society | 3 |
| CRJ 345 | Gangs in American Society | 3 |
| CRJ 351 | Police and Community | 3 |
| CRJ 354 | Juvenile Delinquency | 3 |
| CRJ 356 | Treatment of Offenders | 3 |
| CRJ 357 | Alternatives to Incarceration | 3 |
| CRJ 358 | White Collar Crime | 3 |
The following courses offered by other departments or programs count as electives for the criminal justice major and minor:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 310</td>
<td>Codebreaking</td>
<td>3</td>
</tr>
<tr>
<td>ANT 333</td>
<td>Forensic Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 299</td>
<td>Forensic Science</td>
<td>3</td>
</tr>
<tr>
<td>ISB 460</td>
<td>Computer Forensics</td>
<td>3</td>
</tr>
<tr>
<td>PSC 103</td>
<td>Constitutional Foundation of American Government</td>
<td>3</td>
</tr>
<tr>
<td>PSC 320</td>
<td>American Constitutional Law I</td>
<td>3</td>
</tr>
<tr>
<td>PSC 321</td>
<td>American Constitutional Law II</td>
<td>3</td>
</tr>
<tr>
<td>PSC 345</td>
<td>International Crime after 9/11</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 following psychology courses will count as electives for dual psychology/criminal justice majors:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY 303</td>
<td>Abnormal Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 360</td>
<td>Law &amp; Psychology</td>
<td>3</td>
</tr>
</tbody>
</table>

Dual psychology/criminal justice majors may satisfy the statistics and methods requirements with the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>

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>SOC 110 (3 credits)</td>
<td>MAT 131 (3 credits)</td>
</tr>
<tr>
<td>Sophomore</td>
<td>CRJ 227 (3 credits)</td>
<td>CRJ 228 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>CRJ Elective</td>
<td>CRJ elective</td>
</tr>
<tr>
<td>Junior</td>
<td>CRJ 382 (3 credits)</td>
<td>CRJ 320 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>SOC 342 (4 credits) or ANT 351 (3 credits)</td>
<td>CRJ elective</td>
</tr>
<tr>
<td>Senior</td>
<td>CRJ 449 (3 credits)</td>
<td>CRJ 450 (3 credits)</td>
</tr>
<tr>
<td></td>
<td>CRJ 461 (1 credit)</td>
<td></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 credits)
- CRJ 227 Introduction to Criminal Justice I (3 credits)
- CRJ 228 Introduction to Criminal Justice II (3 credits)
- 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 the forensic analysis of E-mail, instant messaging (IM), cellular phones, digital cameras, PDAs, iPODs, GPS devices, and the Internet.

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 credits)
- CRJ 228 Criminal Justice II (3 credits)
- ISB 350 Telecommunications and Networking (3 credits)
- ISB 460 Computer Forensics (3 credits)
- ISB 470 Cyber Security (3 credits)

Criminal Justice Courses: 2013-2015

CRJ 227 Criminal Justice I 3 credits
Criminal justice system; justification for punishment, the police, constitutional rights, the extent and causes of crime. Fall

CRJ 228 Criminal Justice II 3 credits
Trial, guilty pleas, sentencing, corrections; proposals for change and reform. CRJ 227 should be completed before CRJ 228. Spring

CRJ 280 Language for Legal Professions 3 credits
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 credits
Critical examination of a selected topic in criminal justice. Subject matter determined by the instructor.

CRJ 320 Criminology 3 credits
Classical and contemporary theories of criminal behavior. Spring

CRJ 330 Current Issues in Forensic Psychology 3 credits
Application of the science of psychology to questions and issues relating to criminal law and the criminal justice system. Topics discussed include competency to stand trial, assessment of mental state for an insanity plea, and prediction of violence and assessment of risk. Spring

CRJ 337 Violence and the Family 3 credits
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 credits
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 credits
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 credits
How changes in community standards affect the business of policing. Topics include use of force and private policing.
CRJ 354 Juvenile Delinquency  3 credits
Legal processes in delinquency field. Suggested programs for rehabilitation and prevention of delinquency. Fall

CRJ 356 Treatment of Offenders  3 credits
Correction theory, offender typologies, and nature and diagnosis of offenders and future trends in dealing with criminal offenders.

CRJ 357 Alternatives to Incarceration  3 credits
Examines the most effective choices to safely punish or treat the offender in the community. Topics include use of intermediate sanctions, such as community service, as an alternative to incarceration.

CRJ 358 White Collar Crime  3 credits
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 credits
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 credits
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. Fall

CRJ 449 Criminal Law  3 credits
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 credits
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, 449. Spring

CRJ 498 Criminal Justice Internship  3 credits
Opportunity for selected students to participate in daily work of law enforcement agencies, courts, law firms, and social service agencies. 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 credits
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

CRJ 461 Senior Capstone  1 credit
Integrating experience for majors; focus is on demonstrating proficiency in the discipline and preparation for post-graduate studies or employment. Required for class of 2017 and beyond. Spring
Specialized Studies

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 (i.e. around November 1st for May graduation).
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 has 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 be the academic advisor for the student 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.

Questions
Please direct any questions about the Specialized Studies major to the Dean of Arts & Sciences.
SPORT MANAGEMENT

Director: Shawn O’Rourke

Introduction
For a detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/sports-mgt/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/sports-mgt/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 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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.

1. Business Foundation Course Requirements

<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>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 202</td>
<td>Principles of Microeconomics</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 Credits</td>
</tr>
</tbody>
</table>

2. Sports Management Course Requirements

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPMT 150</td>
<td>Introduction to Sports</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 230</td>
<td>Sport &amp; Recreation Law</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 241</td>
<td>Practicum</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 &amp; Ethics</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 304</td>
<td>Sport, Culture &amp; Society</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 320</td>
<td>Psychology of Sport</td>
<td>3</td>
</tr>
<tr>
<td>PED 351</td>
<td>Coaching Theory &amp; Techniques</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 355</td>
<td>Sport Operation &amp; Planning</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 412</td>
<td>Sport Marketing</td>
<td>3</td>
</tr>
<tr>
<td>SPMT 420</td>
<td>Economics &amp; Finance in Sport Industry</td>
<td>3 Credits</td>
</tr>
<tr>
<td>SPMT 430</td>
<td>Sport Communications</td>
<td>3 Credits</td>
</tr>
<tr>
<td>SPMT 440</td>
<td>Global Perspective in Sport</td>
<td>3 Credits</td>
</tr>
<tr>
<td>SPMT 475</td>
<td>Sport Management Professional Development Seminar</td>
<td>3 Credits</td>
</tr>
<tr>
<td>SPMT 480</td>
<td>Research Methods</td>
<td>3 Credits</td>
</tr>
<tr>
<td>SPMT 490</td>
<td>Internship</td>
<td>3 Credits</td>
</tr>
</tbody>
</table>

3. Arts & Sciences Course Requirements
This degree program also requires 60 hours of Arts & Sciences (non-business & non-education) 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>Freshman</td>
<td>SPMT 150</td>
<td>SPMT 230</td>
</tr>
<tr>
<td>Sophomore</td>
<td>SPMT 241</td>
<td>SPMT 245</td>
</tr>
<tr>
<td></td>
<td>ECO 101</td>
<td>ECO 102</td>
</tr>
<tr>
<td></td>
<td>MGT 101</td>
<td></td>
</tr>
<tr>
<td>Junior</td>
<td>SPMT 302</td>
<td>SPMT 320</td>
</tr>
<tr>
<td></td>
<td>SPMT 304</td>
<td>PED 351</td>
</tr>
<tr>
<td></td>
<td>ISB 101</td>
<td>SPMT 355</td>
</tr>
<tr>
<td></td>
<td>ACC 201</td>
<td>ACC 202</td>
</tr>
<tr>
<td>Senior</td>
<td>SPMT 412</td>
<td>SPMT 420</td>
</tr>
<tr>
<td></td>
<td>SPMT 455</td>
<td>SPMT 475</td>
</tr>
<tr>
<td></td>
<td>SPMT 430</td>
<td>SPMT 480</td>
</tr>
<tr>
<td></td>
<td>SPMT 440</td>
<td>SPMT 490</td>
</tr>
</tbody>
</table>

### Sport Management Course Descriptions: 2013-2015

**SPMT 150 Introductions for Sport Management** 3 credits  
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 credits  
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. **Fall**

**SPMT 241 Practicum in Sport Management** 3 credits  
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 credits  
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 credits  
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 & Society** 3 credits  
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 credits  
This course will review the major social/psychological theories utilized in current sport psychology research. **Spring**

**SPMT 355 Sport Operation & Planning** 3 credits  
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 credits  
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 & Policy in Sport Organizations** 3 credits  
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 credits  
This course provides a senior-level exploration of the role of sport communication in contemporary cultures. **Fall**
SPMT 440 Global Perspective in Sport  3 credits
Is an interdisciplinary examination of sport as a global phenomenon. Historical, cultural, economic, and governance perspectives are considered. Examine the global sporting experience from the 19th century to the present. Fall

SPMT 420 Economics and Finance in Sport Industry  3 credits
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 credits
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 credits
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 credits
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
Director: Kevin R. Hardwick, PhD

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/urban-studies/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/urban-studies/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 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 Curriculum
All students complete Core Curriculum requirements as part of their overall Canisius education. These requirements can be found at http://www.canisius.edu/academics/core/

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>PSC 104</td>
<td>American Political Process</td>
<td>3</td>
</tr>
<tr>
<td>ECO 102</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>PSC 237</td>
<td>State and Local Politics</td>
<td>3</td>
</tr>
<tr>
<td>PSC 334</td>
<td>Public Administration</td>
<td>3</td>
</tr>
<tr>
<td>PSC 336</td>
<td>Urban Government and Politics</td>
<td>3</td>
</tr>
<tr>
<td>HIS 373</td>
<td>Urban Portraits: Topics in Urban History</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIS 381</td>
<td>History of Buffalo</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIS 382</td>
<td>New York State History</td>
<td>3</td>
</tr>
<tr>
<td>ECO 311</td>
<td>Regional Economics and GIS</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECO 312</td>
<td>Spatial Economics and GIS</td>
<td>3</td>
</tr>
<tr>
<td>or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ECO 411</td>
<td>State and Local Finance</td>
<td>3</td>
</tr>
<tr>
<td>URS 400</td>
<td>The Urban Challenge</td>
<td>1</td>
</tr>
</tbody>
</table>
**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 Govern</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>

**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 or HIS 382</td>
<td>PSC 334 URS Elective</td>
</tr>
<tr>
<td>Senior</td>
<td>ECO 311 or ECO 312 or ECO 411</td>
<td>URS 400 URS 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.

**URS 201 Planning for Urban Revitalization** 3 credits
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 credits
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 credits
Research and/or directed reading under direction of faculty members associated with Urban Studies Program. Prerequisite: Permission of Urban Studies Director. Spring & Fall
WOMENS STUDIES PROGRAM

Director: Jane E. Fisher, PhD
Assistant Director: Johanna M. Fisher

The Women's Studies program provides an integrated approach to understanding the social and cultural constructions of gender and race that shape the experiences of women and men in society. The curriculum offers a solid foundation in women's studies, facilitating graduate study and careers involving gender and racial justice and preparing students for leadership roles in diverse workplaces and communities.

The Women's Studies program is excellent preparation for public-service careers, and is especially useful in any field where understanding diversity is a requirement. Additionally, this degree prepares students for graduate study in social work, law, counseling, and any field in the humanities or social sciences. Pre-med and allied health field students, as well as students in the business school, have found women's studies to be helpful in preparing them to understand both their clients and their own lives as professionals.

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. For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/womens-studies/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/womens-studies/learning-goals/

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 http://www.canisius.edu/academics/core/

Minor
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.
### New Women’s Studies Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANT 365</td>
<td>Gender Issues in Language</td>
<td>3</td>
</tr>
<tr>
<td>CLAS 207</td>
<td>Myth and Literature</td>
<td>3</td>
</tr>
<tr>
<td>COM 204</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG 211</td>
<td>Science Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENG 223</td>
<td>Images of Women in Literature and Film</td>
<td>3</td>
</tr>
<tr>
<td>ENG 224</td>
<td>The Journey in World Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENG 230</td>
<td>The Bible as Literature</td>
<td>3</td>
</tr>
<tr>
<td>ENG 325</td>
<td>British Women Writers</td>
<td></td>
</tr>
<tr>
<td>ENG 308</td>
<td>Nineteenth-Century British Literature</td>
<td>3</td>
</tr>
<tr>
<td>PHI 240</td>
<td>Justice</td>
<td>3</td>
</tr>
<tr>
<td>PHI 273</td>
<td>Race and Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>PSY 203</td>
<td>Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>PSY 334</td>
<td>Children, Family and Community Psychology</td>
<td>3</td>
</tr>
<tr>
<td>RST 322</td>
<td>Women Reading the Bible: Feminist Approaches to Scripture</td>
<td>3</td>
</tr>
<tr>
<td>RST 399</td>
<td>Christian Marriage</td>
<td>3</td>
</tr>
<tr>
<td>SOC 273</td>
<td>Social Movements and Social Change</td>
<td>3</td>
</tr>
</tbody>
</table>
The Frank G. Raichle Pre-Law Center

Pre-Law Committee: Robert Klump, Director, Department of Political Science; Patricia E. Erickson, Criminal Justice/Sociology; Peter J. Galie, Emeritus Professor/Department of Political Science; James V. Jones, Director, Career Center; Joseph J. Karaszewski, Esq., Pre-Law Advisory Council member

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.

For a more detailed description of the program, faculty, facilities, academic and co-curricular opportunities please go to http://www.canisius.edu/pre-law/index.dot

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; PSC 420 Constitution, War on Terror, and Civil Liberties
- 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 several partial pre-law scholarship awards to juniors and seniors. 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 The Art of Successful Writing (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
- Consider applying for a law-related internship, a limited number of which are available through college’s Pre-Law Advisory Council (PLAC)

Senior Year: Fall
Advisement sessions: Applying to Law school
Program Director: Allyson D. Backstrom, PhD

Introduction
The Dr. George E. Schreiner ’43 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 and the health professions including medicine (allopathic and osteopathic), dentistry, podiatry, optometry, physician assistant, pharmacy, and veterinary medicine among others. 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 and other health professions 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. All programs require a broad liberal arts education which is achieved through the Core Curriculum. Specific requirements vary from one professional school to another so it is important for students to utilize the advising services of the Pre-Medical Center beginning in their first college year. For a more detailed description of the program please go to http://www.canisius.edu/pre-med/

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.

Qualifications
To meet minimal requirements for most health professions, students must maintain a minimum GPA of 3.0. Students with a GPA lower than this should contact the Pre-Med Advisor for assistance. 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.

Early Assurance and Joint Degree Programs
Canisius College maintains relationships with health professional programs allowing students to gain early acceptance into medical, dental, pharmacy, optometry and veterinary programs among others. Relationships with professional schools also allow for students to be admitted into joint programs upon enrolling at Canisius as freshmen or during the first college year. 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.

Early Assurance Program
Pre-Medical Early Assurance programs at Canisius are offered in conjunction with the State University of New York at Buffalo School of Medicine, State University of New York Upstate Medical University in Syracuse, and the Lake Erie College of Osteopathic Medicine (PA and FL campuses). Pre-Dental Early Assurance programs are offered in conjunction with the State University of New York at Buffalo School of Dental Medicine and LECOM School of Dental Medicine (Bradenton, FL). Pre-Pharmacy Early Assurance Programs are offered in conjunction with the State University of New York at Buffalo School of Pharmacy and LECOM School of Pharmacy (PA and FL campuses).
Joint Degree Programs
Canisius College has six- and seven-year joint degree programs with the following professional schools: SUNY at Buffalo School of Dental Medicine, Lake Erie College of Osteopathic Medicine, SUNY at Buffalo School of Pharmacy, LECOM School of Pharmacy, the SUNY State College of Optometry, among others. The first three years are spent at Canisius and the last three or four years at the professional school. A bachelor’s degree (BS) will be awarded from Canisius College after completion of the first professional year of dental, pharmacy, osteopathic, or optometric school. The DDS, DO, PharmD, OD or other appropriate professional degree will be awarded at the end of six or seven years. To remain in good standing, students must fulfill all requirements established by the professional school. University of Guelph Ontario Veterinary College has also reserved seats for Canisius students.

Courses Offered

**HRP 101: Introduction to Health Professions** 3 credits
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.

**HRP 499 Health Professions Internship** 1-3 credits
Research or other practical experience related to the health professions.
*Prerequisite: Permission of the Program Director. Fall and Spring*
Introduction

Students interested in a career in allopathic (MD) or osteopathic (DO) medicine have the option of completing a four-year degree in any major along with completing specific prerequisites. Medical school admission is very competitive and students should work closely with the Pre-Med Advisor throughout their college years to stay on track with both academic and co-curricular preparation. Students should gain clinical experience through hospital volunteerism and shadowing physicians. Academic admission requirements vary somewhat by medical school. A new Medical College Admission Test (MCAT) exam that will be implemented in 2015 includes some content from courses not specifically required by all medical schools. Students must complete coursework that both satisfies medical school requirements and also prepares them to score well on the MCAT.

Joint and Early Assurance Programs

Canisius College students may apply to Early Assurance programs (4+4) the State University of New York at Buffalo School of Medicine, State University of New York Upstate Medical University in Syracuse, and the Lake Erie College of Osteopathic Medicine (PA and FL campuses). Students apply to the Buffalo and Upstate programs during the sophomore year. Students may apply to the LECOM program during the freshman or sophomore year. Highly qualified students may be admitted to the LECOM joint seven-year (3+4) program upon enrolling at Canisius as freshmen. A six-year (3+3) primary care physician pathway is also available through LECOM. Students may also apply into the LECOM joint programs during the freshman year.

Recommended Pre-Medical Courses

Recommendations include those courses needed to meet medical school requirements and to prepare for the MCAT 2015 exam:

<table>
<thead>
<tr>
<th>Course</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>One year of English composition (FYS 101 and ENG 101).</td>
</tr>
<tr>
<td>Biology</td>
<td>At least one year of general biology with laboratory (BIO 111-112).</td>
</tr>
<tr>
<td>Chemistry</td>
<td>One year of general chemistry and one year of organic chemistry with laboratories (CHM 111-112, CHM 227-228).</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>Students may take biochemistry in either the Biology Department (BIO 211-212, take both courses) or the Chemistry Department (BCH 301-302, take either one or both courses).</td>
</tr>
<tr>
<td>Physics</td>
<td>One year of introductory physics with laboratory (PHY 201-202 or PHY 223-224).</td>
</tr>
<tr>
<td>Mathematics</td>
<td>Math requirements vary at the different medical schools. Many of the more competitive medical schools require one year of college level math. Some require calculus, some require statistics. The MCAT will utilize statistics typically learned through science courses. We recommend students take a minimum of one semester of statistics (MAT 141 or PSY 201) and strongly encourage students to also take one semester of calculus (MAT 111). Chemistry majors must take MAT 141.</td>
</tr>
<tr>
<td>Behavioral/Social Science</td>
<td>One semester each of psychology (PSY 101 or 102) and sociology (SOC 101). Some medical schools require more than two courses in the behavior/social sciences. The MCAT 2015 will include content from PSY 101, PSY 102 and SOC 110. Some of this content may be learned independently.</td>
</tr>
</tbody>
</table>
Introduction
Students interested in a career in Dental Medicine have the option of pursuing any major along with completing specific prerequisites. Students must gain a thorough understanding of the profession through a range of shadowing experiences, demonstrate a commitment to service, and earn a competitive score on the Dental Admission Test (DAT). Students should work with the Pre-Med Advisor beginning in the first college year to select appropriate coursework based on their schools of interest, and to plan for appropriate co-curricular experiences.

Joint and Early Assurance Programs
Canisius College maintains relationships with SUNY at Buffalo School of Dental Medicine and LECOM School of Dental Medicine (Bradenton, FL) which allow highly qualified students to gain early acceptance into dental school. Students may be admitted into the program upon enrolling at Canisius as freshmen (3+4 program with SUNY at Buffalo, 4+4 program with LECOM). Students may also apply to the SUNY at Buffalo program (4+4) during their sophomore year or apply to the LECOM program during the freshman or sophomore year.

Recommended Pre-Dental Courses
Academic admission requirements vary by dental school, but usually include the following courses:

**English:** One year of English composition (FYS 101 and ENG 101).

**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).

**Physics:** One year of introductory physics with laboratory (PHY 201-202 or PHY 223-224).

Additional Pre-Dental course suggestions include:

**Mathematics:** Math requirements vary at the different dental schools. We recommend students take a minimum of either statistics (MAT 141 or PSY 201) or calculus (MAT 111). Chemistry majors must take MAT 141.

**Behavioral/Social Science:** One semester each of psychology (PSY 101 or 102) and sociology (SOC 101). The behavioral science and humanities requirements vary at dental schools.

**Biochemistry:** Some dental schools require one semester of biochemistry. Students may take biochemistry in either the Biology Department (BIO 211-212 take both courses) or Chemistry Department (BCH 301-302 take one or both courses).

**Additional Biology:** Some dental schools have additional biology courses such as microbiology (BIO 307) or anatomy and physiolog (BIO 114 and/or 115) either required or recommended.
Introduction
Students interested in a career in Optometry have the option of pursuing any major along with completing specific prerequisites. Optometry schools typically require a minimum of 90 credit hours be completed at the undergraduate level and many prefer the bachelor degree be completed. Students must gain a thorough understanding of the profession through a range of shadowing experiences and earn a competitive score on the Optometry Admission Test (OAT). Students should work with the Pre-Med Advisor beginning in the first college year to select appropriate coursework based on their schools of interest, and co-curricular experiences.

Joint and Early Assurance Programs
Canisius College maintains a relationship with SUNY College of Optometry which allows students to gain early acceptance into optometry school. Highly qualified students may be admitted into this 3+4 program upon enrolling at Canisius as freshmen or during the freshman or sophomore year.

Recommended Pre-Optometry Courses
Academic admission requirements vary by optometry school, but usually include the following courses:

**English:** One year of English composition (FYS 101 and ENG 101).

**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).

**Physics:** One year of introductory physics with laboratory (PHY 201-202 or PHY 223-224).

**Mathematics:** One semester of statistics (MAT 141 or PSY 201) and one semester of calculus (MAT 111). Chemistry majors must take MAT 141. Some optometry schools suggest one year of calculus (MAT 111-112).

**Psychology:** One semester of psychology (PSY 101 or 102).

**Social Science and Humanities:** Two courses. Sociology (SOC 101) is recommended.

**Additional Pre-Optometry course suggestions include:**

**Biochemistry:** Students may take biochemistry in either the Biology Department (BIO 211-212, take both courses) or the Chemistry Department (BCH 301-302, take either one or both courses).

**Microbiology:** One semester of microbiology (BIO 307).

**Anatomy & Physiology:** One semester of anatomy and physiology (BIO 114).
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. 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. 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. Competitive students generally have a GPA of at least 3.3-3.5. Students must gain a thorough understanding of the pharmacy profession that includes shadowing or work experience in a pharmacy. Students must also earn competitive scores on the PCAT (Pharmacy College Admissions Test.)

Joint and Early Assurance Programs
Canisius College has a seven-year (3+4) joint degree program with State University of New York at Buffalo School of Pharmacy and Pharmaceutical Sciences, and both six- (3+3, PA campus) and seven-year (3+4, FL campus) joint degree programs with Lake Erie College of Osteopathic Medicine School of Pharmacy. These programs allow students to earn both the bachelor degree from Canisius College and the Doctor of Pharmacy degree from the partner institution. In these programs, students complete the Core Curriculum and three years of the Chemistry Health Track major (courses approved by the Chair of the Chemistry Department). After the first year of pharmacy school, the bachelor degree is awarded by Canisius. Students also have the option to apply to a wide range of pharmacy schools under the 3+4 program. For more information regarding these programs contact the Pre-Med Advisor.

Recommended Pre-Pharmacy Courses
Academic admission requirements vary substantially by pharmacy school, but usually require the following courses:

**English:** One year of English composition (FYS 101 and ENG 101).

**Biology:** At least one year of general biology with laboratory (BIO 111-112). Most schools also require one year of Human Biology; Introduction to Human Anatomy and Physiology and Musculoskeletal Anatomy and Physiology with laboratory (BIO 114-115). Other programs require Microbiology with laboratory (BIO 307).

**Chemistry:** One year of general chemistry and one year of organic chemistry with laboratories (CHM 111-112, CHM 227-228). Some schools also require Biochemistry (BCH 301 or BIO 211-212)

**Physics:** One semester or one year of introductory physics with laboratory (PHY 201-202 or PHY 223-224). Check schools of interest for the number of semesters required.

**Mathematics:** One or 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, US history, theology and/or philosophy. Some programs specifically require psychology.

**Public Speaking:** One semester of oral communications (COM 201)

**Economics:** One semester of macroeconomics (ECO 101) or microeconomics (ECO 102). Some programs specifically require ECO102.
**Introduction**
Students interested in a career in Veterinary Medicine have the option of pursuing a major in any discipline along with completing specific prerequisites. Due to the significant biology requirements, most students pursue a major in this area. Veterinary medicine pre-requisites vary significantly from school to school. Students should work with the Pre-Medical Center to identify schools of interest and meet appropriate requirements. In addition to specific coursework, pre-vet students must gain significant experience with animals and shadow veterinarians. Students may participate in the local Veterinary Explorers organization.

**Joint and Early Assurance Programs**
Canisius College enjoys reserved spots for our students through a Memorandum of Understanding with Ontario Veterinary College at the University of Guelph. Visit the Pre-Medical Center for additional details.

**Recommended Pre-Veterinary Courses**
Academic admission requirements vary substantially by veterinary medical school, but usually include the following courses:

**English:** One year of English composition (FYS 101 and ENG 101).

**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).

**Biochemistry:** One semester of biochemistry. Students may take biochemistry in either the Biology Department (BIO 211-212 take both courses) or the Chemistry Department (BCH 301-302 take either one or both courses).

**Physics:** One year of introductory physics with laboratory (PHY 201-202 or PHY 223-224).

**Mathematics:** One semester of statistics (MAT 141 or PSY 201). Some veterinary schools require more math such as calculus (MAT 111).

**Additional Pre-Veterinary course suggestions include:**
One semester of genetics (BIO 405) and one semester of microbiology (BIO 307).
INTERDISCIPLINARY MINOR IN CATHOLIC STUDIES

Director: Nancy M. Rourke, PhD

The Catholic Studies minor at Canisius College examines the doctrinal, historical, legal, spiritual and cultural traditions of Catholicism.

In addition, it includes “dialogue” 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 also 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 at http://www.canisius.edu/religious-studies/courses/index.dot#catholicstudies

Structure of the Catholic Studies Minor

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RST 231</td>
<td>Introduction to Catholic Studies (AS VI)</td>
<td>3</td>
</tr>
<tr>
<td>CTH 400</td>
<td>Research in Catholic Studies</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>One course in each of four areas:</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Catholic Theology and Life;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Catholic Culture: Literature, Art, Music &amp; Science;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Catholic History &amp; Politics;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and Catholic Social Thought &amp; Philosophy — but no more than two courses from any one department in these areas.</td>
<td></td>
</tr>
<tr>
<td>Total (6 courses)</td>
<td></td>
<td>18</td>
</tr>
</tbody>
</table>

Interdisciplinary Minor in Catholic Studies Courses: 2013 - 2015

**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. Fall, Spring

**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

**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.

I. Catholic Theology and Life

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RST 230</td>
<td>Catholic Belief Today (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>RST 350</td>
<td>Christian Concept of God (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>or HON 327</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RST 351</td>
<td>Freedom, Sin, and Grace (Field 1)</td>
<td>3</td>
</tr>
</tbody>
</table>
## I. Catholic Culture: Literature, Art, Music and Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>
</tr>
</tbody>
</table>

### II. Catholic Culture: Literature, Art, Music and Science

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<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)</td>
<td>3</td>
</tr>
<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 &amp; Renaissance Music (Global)</td>
<td>3</td>
</tr>
<tr>
<td>HON 328</td>
<td>Age of Michelangelo</td>
<td>3</td>
</tr>
<tr>
<td>RST 314</td>
<td>New Testament in Literature/Art (Field 1, Global)</td>
<td>3</td>
</tr>
<tr>
<td>RST 343</td>
<td>Religion &amp; the Challenge of Science (Field 1)</td>
<td>3</td>
</tr>
</tbody>
</table>

### III. Catholic History and Politics

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLS 308</td>
<td>Pagans &amp; 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</td>
<td>3</td>
</tr>
</tbody>
</table>

### IV. Catholic Social Thought & Philosophy

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>
</tr>
<tr>
<td>RST 325</td>
<td>Early Christianity (Field 1)</td>
<td>3</td>
</tr>
<tr>
<td>RST 328</td>
<td>The Jesuits: History, Spirituality and Culture (Field 1, Oral)</td>
<td>3</td>
</tr>
<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>
</tr>
<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>
</tr>
<tr>
<td>RST 342</td>
<td>Theological Ethics and Environmental Justice (Field 1, Ethics, Oral)</td>
<td>3</td>
</tr>
<tr>
<td>RST 345</td>
<td>Bio-Moral Problems (Field 1, Ethics)</td>
<td>3</td>
</tr>
<tr>
<td>RST 399A</td>
<td>Christian Marriage (Core Capstone)</td>
<td>3</td>
</tr>
</tbody>
</table>
ALL-COLLEGE HONORS PROGRAM

Director: Bruce J. Dierenfield, PhD

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 at http://www.canisius.edu/honors-program/index.dot

Learning Goals and Objectives
For learning goals and objectives please go to http://www.canisius.edu/honors-program/learning-goals/

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, all of which count for 3 credits; there are no prerequisites)
Freshmen (100s & 200s): English and Western Tradition I & II

Sophomores & Juniors (200s & 300s): Fine Arts, History, Literature, Philosophy, Religious Studies (2), Science/Math/ Tech, Social Science

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 satisfactorily 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, though there are no exemptions for Honors English or Western Tradition. Honors students are encouraged to study abroad and receive up to six hours of Honors credit.

Recommended semester schedule for Honors Program course requirements, except for science majors

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall Semester</th>
<th>Spring Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>HON 101 English</td>
<td>HON 111 Western</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tradition II</td>
</tr>
<tr>
<td></td>
<td>HON 110 Western</td>
<td>Foreign Language</td>
</tr>
<tr>
<td></td>
<td>Tradition I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foreign Language</td>
<td></td>
</tr>
<tr>
<td>Sophomore</td>
<td>1-2 Honors courses</td>
<td>1-2 Honors courses</td>
</tr>
<tr>
<td>Junior</td>
<td>1-2 Honors courses</td>
<td>1-2 Honors courses</td>
</tr>
<tr>
<td>Junior/Sen</td>
<td>HON 451 (Thesis)</td>
<td></td>
</tr>
</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.
Honors Courses: 2013-2015

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 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, 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 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 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 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 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 241 History of Judaism
An introduction to the history, religion, and literature of Judaism from the Hellenistic period to the present.

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 245 Education and the Media
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 255 The Buffalo Experience
This new interdisciplinary course will focus on the history, architecture, and culture of Buffalo, New York, known variously as the "Queen City of the Lakes," the "City of Lights," and the "City of No Illusions." There will be guest speakers, a sampling of local food, and several field trips,
including a guided walking tour of downtown Buffalo and a tour of Delaware Avenue’s “millionaire row” of homes.

**HON 260 Ritual and Self**
This new Fine Arts course will examine various ways in which the relationship between ritual and self-reflection influence and motivate art. Students will negotiate diverse aspects of art and relate their own personal rituals to broader art—historical, anthropological, and theoretical discourses as conceptual underpinnings in the creation of a series of non-traditional self-portraits.

**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 316 Famous Jesuits**
Students in this new course will study the lives and works of famous Jesuits. Classroom work will especially consider the life of Ignatius Loyola, his *Spiritual Exercises*, and his work as Superior General of the religious order that bears his name (Society of Jesus). The efforts of Matteo Ricci to adapt Christianity to Chinese culture will be studied before investigating the life and work of several contemporary Jesuits, including Bernard Lonergan, John Courtney Murray, Robert Drinan, and Daniel Berrigan. For those Jesuits from the United States, the course will highlight the impact of American culture and politics on their lives. This course is especially timely, what with the recent selection of the 1st Jesuit pope—Francis I.

**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**
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**
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**
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**
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**
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**
An examination of recent developments in biotechnology and how they have shaped contemporary society.
HON 353 Age of Robotics
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
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
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 357 Global Pentecostalism
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
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
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. Among other autobiographies, we will read those written by Augustine of Hippo, Vera Brittain, John Bunyan, Edward Gosse, and Ignatius of Loyola.

HON 374 A Novel Nation: American Literature & Philosophy in the 19th Century
This team-taught course will explore the major American literary and philosophical movements of the 19th century, including romanticism, transcendentalism, sentimentalism, pragmatism, and realism. We will look closely at ante-bellum and post-bellum thought, studying such figures as Emerson, Thoreau, Whitman, Lincoln, Dickinson, Fuller, Holmes, and James. We will pay particular attention to the Civil War and how disunion affected the American psyche and how Americans mourned those who were lost; thus, we will study grief, memory, and (im)mortality. We will read a range of different genres, from essays, poems, novels, short stories, slave narratives, and memoirs. We will ask ourselves how literature and philosophy complement each other as disciplines and how they differ.

HON 375 American Authors and Storytellers
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
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
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
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 Remodeling Old Texts
This course will explore the phenomenon of adapting classic literary narratives to modern sensibilities in order to consider contemporary issues. More than simply “updating” classic texts, and deeper than mere homage, these remodelings of texts attempt to elicit deeper understandings, to uncover hidden texts (like X-rays, revealing underpinnings), to give voice to marginalized characters, or to highlight truths embedded within the texts. This technique is akin to creative criticism. In this way, classic texts are given new life, new meanings, and new relevance. Many of them are “post-colonial” replies to colonial narratives, so we will explore the social and political motivations for rewriting, including giving voice to marginalized characters in the original texts—voices of gender, sexual, and racial authorities.

HON 430 Tutorial
This course will be conducted as a tutorial in the Oxbridge (Oxford & Cambridge Universities) style, i.e., one or two students will meet with the instructor once weekly to discuss readings and write & revise papers. Interested students should contact the instructor for mutually agreeable topics.

HON 451 Thesis
Independent research on topic selected by student, culminating in a research paper. Students work closely with their faculty advisers.
THE URBAN LEADERSHIP LEARNING COMMUNITY (ULLC)

Co-Directors: E. Roger Stephenson, PhD and Dr. Christian Blum, PhD

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:
Dr. Roger Stephenson (stephene@canisius.edu, 716.888.2655) or Dr. Christian Blum (blum2@canisius.edu, 716.888.2650)
Stephanie Q. Cattarin, Executive Director; Blake Carbone, Center Coordinator; Brynne Harrison, Program Coordinator

The Canisius Center for Professional Development 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.

Open Enrollment Programs
Our cutting edge business workshops are designed to develop great leaders regardless of role or experience. Led by our top ranked college faculty and business experts, participating in these sessions will elevate the skills and leadership required to be successful in today’s business climate.

People are a big part of our focus whether it is about the expertise we bring to bear or the solutions we provide to help leaders succeed. Our process enables the direction and actions necessary for teams to execute and deliver company goals and objectives. We focus on enabling leaders with skills that help transform their business.

Custom Solutions
Customized solutions to meet your specific goals and objectives:

The Canisius Center for Professional Development specializes in developing strategic solutions for organizations. Our partnerships are characterized by collaboration between the CPD faculty and industry leaders to provide our clients with impactful and inventive solutions that address their business challenges. We recognize that "one size does not fit all" and deliver solutions that will help achieve targeted business objectives.

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
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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