

Canisius College

UNDERGRADUATE CATALOG

2013-2015



TABLE OF CONTENTS

Calendar	4	Animal Behavior, Ecology and Conservation.....	98
General Information	13	Athletic Training	104
Student Affairs	18	Bioinformatics.....	109
Admissions Policies	24	Biology.....	113
Academic Policies	27	Chemistry and	124
Class attendance, Changes, Withdrawal, Leave of Absence.....	27-28	Biochemistry	132
Code of Academic Integrity	29-33	Classics	138
Academic Forgiveness Policy, Placement.....	33	Communication Studies.....	144
Grades and Policies	34-37	Computer Science.....	151
Credit by examinations, Quality Points, Academic Standing.....	37-38	Creative Writing.....	156
Policy on Student Records.....	39-40	Digital Media Arts.....	159
Academic Excellence, Graduation and Graduation Honors.....	40-41	Dual Degree Program (B.A./B.S.-M.B.A.)	165
All-College Awards and Prizes.....	41-48	Economics	166
Tuition and Fees	49	Finance.....	173
Student Financial Aid	53	Education.....	177
Academic Curricula, Degrees, Certificates and Advisement	62	Early Childhood Birth - Gr. 2	177
Core Curriculum.....	62-65	Childhood Education Gr. 1-6	179
Degree information	66-67	Early Childhood/Childhood.....	181
Pre-Professional Programs, Dual Degree Programs and Minors.....	68	Special Education Childhood	183
Courses of Instruction.....	69	English.....	189
Academic Advisement.....	70-71	English as a Second Language	197
College of Arts and Sciences	72	Entrepreneurship	199
Richard J. Wehle School of Business	73	Environmental Science.....	206
School of Education and Human Services	75	Environmental Studies.....	209
Programs of Study	81	European Studies	216
Accounting/Accounting Information Systems.....	81	Fine Arts	219
Adolescence Education	93	Art History.....	219
		Music.....	223
		Music Performance.....	227
		Music Business.....	230

Studio Art Minor.....	236	Social Sciences Program	360
Dance.....	239	Sociology, Anthropology and Criminal Justice	362
Health and Wellness.....	240	Sociology	362
History.....	244	Anthropology.....	366
Humanities.....	255	Criminal Justice.....	369
International Business.....	256	Specialized Studies.....	373
International Relations	259	Sport Management.....	375
Journalism.....	265	Urban Studies.....	378
Latin American Studies	269	Women's Studies	381
Management.....	271	Pre Professional Programs.....	383
Marketing and	281	Pre-Law (Raichle Pre-Law Center)	383
Information Systems.....	287	Pre-Medical and Pre-Health Professions.....	385
Mathematics and Statistics	291	Pre-Medicine.....	387
Medical Laboratory Science.....	297	Pre-Dental Medicine	388
Military Science	299	Pre-Optometry	389
Modern Languages, Literatures and Cultures.....	302	Pre-Pharmacy.....	390
Philosophy.....	312	Pre- Veterinary Medicine	391
Physical Education	320	Special Programs.....	392
Health.....	324	Interdisciplinary Minor in Catholic Studies.....	392
Sport Studies.....	328	All-College Honors Program	394
Physics.....	334	The Urban Leadership Learning Community	400
Political Science	338	External Business Programs.....	401
Pre-Engineering (2+2)	344	Canisius Center for Professional Development.....	401
Pre-Engineering (3 + 2).....	346	Women's Business Center.....	402
Professional Technical Studies.....	348	Directories.....	403
Psychology.....	349	Administration	403
Religious Studies and Theology	354	Faculty.....	409
		Campus Map.....	437

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 Fall Holiday – No classes.
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 Recess begins. 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.
Last day to apply for a course pass/fail.
- 17 Friday Last day to apply for a course pass/fail.
- 18 Saturday Last day to drop/add a class.
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. Graduate Business classes in session.
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.

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	Tuesday	No withdrawal refund.
12	Wednesday	Fall 2014 schedule and advisement guide available on the web.
14	Friday	Deficiency reporting ends. Web entry off. Student Progress Report meetings with advisors end.
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.

- 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

May 2014

- 19 Monday First undergraduate 5 week summer session begins.
First Graduate Business 6 week summer session begins.
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.
First Graduate Education 5 week summer session ends.
- 23 Monday Second undergraduate 5 week summer session begins.
- 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.
First day to apply for a course through pass/fail program.
- 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.
Deadline for submitting Core Curriculum course proposals for inclusion in the Spring 2015 course schedule.
First Student Health warnings for students not in compliance.
- 9 Tuesday 50% Withdrawal refund.
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.
- 26 Friday Faculty progress report submission begins.
- 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.
- 10 Friday 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

- 5 Monday College reopens.
- 12 Monday Classes begin in undergraduate and graduate divisions.
First day to apply for a course through pass/fail program.
- 16 Friday Last day to apply for a course through pass/fail program.
- 17 Saturday Last day to drop/add a course.
Graduate Education classes in session.
- 19 Monday Martin Luther King Day – No classes.
- 20 Tuesday Withdrawal from classes begins.
90% Withdrawal refund.
First Student Health warnings for students not in compliance.
- 27 Tuesday 50% Withdrawal refund.
Second Student Health warnings for students not in compliance.

February 2015

- 2 Monday Summer 2015 schedule due in Student Records Office.
- 3 Tuesday 50% Withdrawal refund.
Deadline for submitting Core Curriculum course proposals for inclusion in the Spring 2015 course schedule.
First Student Health warnings for students not in compliance.
- 6 Friday Fall 2015 schedule and advisement guide information to department chairs.
- 10 Tuesday 25 % Withdrawal refund.
Student Health registration cancellations for students not in compliance.
- 13 Friday Faculty Progress Report submission begins.

- 14 Saturday Graduate Education classes in session.
- 16 Monday President's Day Holiday – No classes.
Graduate Business classes in session.
- 17 Tuesday President's Holiday – No classes.
25% Withdrawal refund.
- 18 Wednesday Fall 2015 schedule due to associate deans.
- 23 Monday Fall 2015 Advisement Guide information due.
Faculty Progress Report submission ends.
25% Withdrawal refund.
- 24 Tuesday 25% Withdrawal refund.
- 26 Thursday Student Progress Report meetings begin.
- 27 Friday End of Third Quarter.

March 2015

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

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 Ignation Scholarship Day.
18 Saturday Fall 2015 undergraduate registration.
Students with 43.0 - 71.0 credit hours or more begin to register.
20 Monday Deficiency entry ends.
21 Tuesday Deficiency notices emailed to students.
25 Saturday Fall 2015 undergraduate registration.
Students with 0.0 – 42.0 credit hours or more begin to register.
27 Monday First day to withdraw from pass/fail program.

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.

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.

- 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.

GENERAL INFORMATION

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 Education¹. All of the college's programs are registered by the Regents of the University of the State of New York through the State Education Department². The undergraduate programs in Business Administration and the M.B.A. program are accredited by the Association to Advance Collegiate Schools of Business International³. The chemistry major is accredited by the American Chemical Society⁴, and the athletic training major by the Commission on Accreditation of Allied Health Education Programs⁵. 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 Education⁶. The Graduate Program for Teachers of the Deaf is accredited by the Council on the Education of the Deaf.⁷ The Graduate Programs in Counseling are accredited by the Council for the Accreditation of Counseling and Related Educational Programs.⁸

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 aid 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: (800) 227-5558 (US only) 202-872-4600
- 5 Commission on Accreditation of Athletic Training Education, 2201 Double Creek Drive, Suite 5006, Round Rock, TX 78664 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 77710 Telephone (409) 880-8175
- 8 Council for Accreditation of Counseling and Related Educational Programs, 1001 North Fairfax Street, Suite 510, Alexandria VA 22314 Telephone (703) 535-5990

STUDENT AFFAIRS

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

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

Division of Student Affairs

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

Assistance to students is provided by the following offices:

- 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 Griffs

Men's and Women's – rugby, volleyball, hockey, soccer, bowling, tennis

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

Intramural Opportunities

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

Women – 5 on 5 and 3 on 3 basketball

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

Campus 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 work-out 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 = **A**frican **A**merican, **L**atino/a **A**merican, **A**sian **A**merican, **N**ative **A**merican 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/

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 web site has detailed information about health requirements and links to the required forms.

Public Safety

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

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

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

For a comprehensive summary of the activities and services provided by Public Safety, visit the Department of Public Safety 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/>

ADMISSIONS POLICIES

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

Secondary School Preparation

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

Applications for Freshman Admission

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

ACADEMIC POLICIES

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

Making Changes

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

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

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

Withdrawal

Withdrawal from a course: A student wishing to withdraw from a course must submit a course withdrawal form to the Student Records office after it has been signed by the instructor and the departmental or freshman advisor, as well as by a financial aid counselor if the student receives financial aid and by a counselor from COPE if the student is involved in programs through that office. If the student is participating on one of the NCAA athletic teams, the Athletic Academic Advisor must also sign the form. Students receiving any type of Veteran's Benefits need to

obtain the signature of the VA benefits certifying official. The instructor indicates either approval or disapproval of the student's request to withdraw. An instructor might disapprove withdrawal if there is evidence of academic dishonesty. In cases where the instructor disapproves of the withdrawal, permission to withdraw is determined by the associate dean of the student's school in consultation with the instructor of the course. Requests for withdrawal are not granted automatically, nor are they denied automatically.

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

Withdrawal from the college: A student desiring to withdraw from the college must consult the director of student retention, who will forward the withdrawal form to the appropriate associate dean.

In the case of freshmen, a parent or guardian must indicate approval of withdrawal by signing the withdrawal form. The official date of the student's withdrawal is the date on which the withdrawal form is received and approved by the appropriate 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 regrading; or allowing another person to do one's work and submitting that work under one's own name. Cheating also includes the possession, without authorization, of copies of tests, answer sheets, or other materials, however obtained, that could interfere with fair, accurate testing, as well as retaining, possessing, using or circulating previously given examination materials without authorization.

3. Duplicate Submission of the Same Work

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

4. Collusion

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

5. False Information and Lying

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

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.

A-

B+ Good performance.

B

B-

C+

C Adequate performance.

C-

D Poor, but passing, performance.

F Failing performance.

FX Failure due to excessive absences or unauthorized absence from the final examination.

P or **U P** Passing. **U** Failing, The description of the Pass/Fail program is given later in this chapter.

Grades authorized by the deans include the following:

W Authorized Withdrawal from a course. The description of withdrawal procedures is in a preceding section of this chapter.

I Incomplete. A student who has failed to fulfill all requirements of a course may petition the instructor to request an incomplete grade. The request must be approved by the instructor and then the appropriate associate dean. An incomplete grade will be granted for only serious and well-defined reasons.

NG No grade submitted by the course instructor

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

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

If your requirements will be completed:	Application for Graduation due by:	Your diploma will be available:
In May	December 15	At May Commencement
In August	August 1	Approx. September 15
In December	December 2	Approx. February 1

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. Demske, 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 awarded to the graduating students who possess writing in the style of Joyce Carol Oates.

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.

Fine Arts Department

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

The Thalia Feldman Memorial Award in Art History

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

The Outstanding Achievement in Visual Art Award

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

History Department

The Professor William M. Harrigan Award for Excellence in History

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

The Professor Edwin L. Neville Scholarship in History

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

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

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. Gabbey, MD. Award for Excellence in Athletic Training is presented to the graduating senior who has demonstrated outstanding skills in all aspects of the Athletic Training program

The 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.

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 or withdrawal credit given over the telephone. Withdrawal credit or refunds of tuition will be given to those students whose bills are paid, or who have signed a Semester Payment Plan on or before the due date specified on the bill.

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

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

Per semester in all curricula	
Full time (12-18 credit hours)	\$15,995.00
Part-time	\$914.00/credit hour
Undergraduate courses in excess of semester hours allotted to each curriculum per semester hour	\$914.00/credit hour
Audit, per semester hour	\$457.00
Audit, Alumni & Parents of Students, per course ^{2,3}	\$60.00
Audit, Senior Citizens, per semester (no course limit) ^{2,3}	\$50.00

2013-2014 Housing Rates*

Room Rates	Per Semester	Per Year
Bosch/Frisch – Double	\$3,605.00	\$7,210.00
Bosch/Frisch - Suite	\$4,058.00	\$8,116.00
Bosch/Frisch Bathroom Suite	\$4,130.00	\$8,260.00
Campion Hall - Single	\$4,156.00	\$8,312.00
Campion Hall (2&3)	\$3,595.00	\$7,190.00
Delavan Townhouses 2 & 3 person	\$4,754.00	\$9,508.00
Delavan Townhouses 4 & 5 person	\$4,395.00	\$8,790.00
Dugan - Suite	\$4,187.00	\$8,374.00
George Martin House - Double	\$3,595.00	\$7,190.00
George Martin House - Single	\$4,489.00	\$8,978.00
Main Humboldt (4-person apt)	\$4,395.00	\$8,790.00
Village Townhouses	\$4,395.00	\$8,790.00

Semester Fees

Student Government tax (provides partial support for various student activities)	
Full-time students	\$200.00
Part-time students	\$18.00
College fee (including library, facilities use & ID card)	
Full-time students	\$283.50
Part-time student	\$13.00/credit hour
Technology fee	
Full-time students	\$112.50
Part-time students	\$7.50/credit hour
Health fee	
Full-time students	\$75.00
Part-time students	\$50.00

Special Fees

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

Occasional Fees and Charges

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

1 Tuition waiver: see Financial Aid section.

2 On a space-available basis.

3 No fees, except for laboratory, are charged.

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 1,2,3 or 4. Residence students not in Bosch, Frisch, or Eastwood, and commuter students, may choose any of the six options. If Plan 1,2,3,4 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.

STUDENT FINANCIAL AID

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

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

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

Estimated Student Budget for the Academic Year 2013-2014

	Commuter	Resident
Tuition	\$31,990	\$31,990
Fees	\$1,342	\$1,342
Books/Supplies	\$1,000	\$1,000
Room and Board	\$1,500	\$12,270
Personal/Recreation	\$700	\$700
Transportation	\$800	\$800
Total	\$38,032	\$48,102

General Eligibility Requirements

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

1. Study at least half-time at an educational institution approved by the federal government. It may be located in New York, in another state, or in a foreign country.
2. Be a U.S. citizen or eligible non-citizen.
3. Be a resident of New York State for 12 months immediately preceding the first term for which the student is applying for aid (for New York State financial aid programs).
4. Be in good academic standing and making satisfactory academic progress.

5. Have no outstanding debt from a previous student loan default and must not owe a refund on any federal grant at any institution.
6. Demonstrate compliance with applicable Selective Service laws.
7. Demonstrate financial need or meet individual program or scholarship requirements.
8. Have never received a drug conviction while receiving aid OR have satisfied federal requirements to reinstate eligibility after a drug conviction.

Repeating a Course

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

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

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

Criteria for Student Financial Aid Consideration

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

Student Financial Aid awards are generally based on full-time attendance, which is at least 12 credit hours per academic semester. It is recommended that students contact the Financial Aid Office before reducing their academic load below 12 credit hours per semester in order to determine the effect on their financial aid. Students

whose academic loads do fall below 12 hours per semester are required to contact the Financial Aid Office because it is very likely that the financial aid award will be affected. Certain aid programs are available to students who have enrolled part-time for at least six credit hours per semester. Students should contact the Financial Aid Office for further information.

Note: To receive financial aid, a student must remain "in Good Academic Standing." For further information, the student should read the section entitled "Satisfactory Academic Standing."

New York State Tuition Assistance Program

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

2013-2014 TAP

2012 New York State Net Taxable Income	TAP Award
\$0 - 7,000	\$5,000
\$8,000	\$4,930
\$9,000	\$4,860
\$10,000	\$4,790
\$11,000	\$4,720
\$12,000	\$4,620
\$13,000	\$4,520
\$14,000	\$4,420
\$15,000	\$4,320
\$16,000	\$4,220
\$17,000	\$4,120
\$18,000	\$4,020
\$19,000	\$3,900
\$20,000	\$3,780
\$21,000	\$3,660
\$22,000	\$3,540
\$23,000	\$3,420
\$24,000	\$3,330
\$25,000	\$3,180
\$26,000	\$3,060
\$27,000	\$2,940
\$28,000	\$2,820

2012 New York State Net Taxable Income	TAP Award
29,000	\$2,700
30,000	\$2,580
31,000	\$2,460
32,000	\$2,340
33,000	\$2,220
34,000	\$2,100
35,000	\$1,980
36,000	\$1,860
37,000	\$1,740
38,000	\$1,620
39,000	\$1,500
40,000	\$1,380
41,000	\$1,260
42,000	\$1,140
43,000	\$1,020
44,000	\$900
45,000	\$780
46,000	\$660
47,000	\$540
48,000 - 60,000	\$500
60,001 - 70,000	\$500
70,001 - 80,000	\$500

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.

Amount Borrowed	Amount of Payment	Number of Payments
\$1,000	\$90.26	12
\$2,000	\$93.64	25
\$3,000	\$97.66	39
\$4,000	\$127.69	40
\$6,000	\$191.53	40
\$7,000	\$223.45	40
\$9,000	\$287.29	40
\$10,000	\$319.21	40

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

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: The Higher Education Opportunity Program (HEOP) is a New York State education program. The purpose of this program is to assist academically under-prepared and financially disadvantaged students. In order to qualify, students must meet specific criteria in each of these areas.

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. 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:

First Year:	\$3,500 each year
Second Year:	\$4,500 each year
Third, Fourth & Fifth Years +:	\$5,500 each year

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

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

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

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.

Before being certified for aid for this semester:									
1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
A student must have accrued at least this many graded credits:									
0	3	9	21	33	45	60	75	90	105
With at least this Cumulative Quality Point Average:									
0	1.1	1.2	1.3	2.0	2.0	2.0	2.0	2.0	2.0

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

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

Before being certified for aid for this semester:									
1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th
A student must have accrued at least this many graded credits:									
0	6	15	27	39	51	66	81	96	111
With at least this Cumulative Quality Point Average:									
0	1.5	1.8	1.8	2.0	2.0	2.0	2.0	2.0	2.0

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:

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

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

Waivers: If a student fails to maintain program pursuit, fails to make satisfactory progress, or fails to meet both of these elements of good 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 reinstate 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:	
Anthropology	2202
Art History	1003
	0401
Classics	1504
Communication Studies	0601
Computer Science	0701
Creative Writing	1507
Criminal Justice	2105
Economics	2204
English	1501
Environmental Studies	2299
European Studies	0310
History	2205
Humanities	4903
International Relations	2210
Latin American Studies	0308
Mathematics & Statistics	1701
French	1102
German	1103
Spanish	1105
Music	1005
Philosophy	1509
Political Science	2207
Psychology	2001
Religious Studies	1510
Sociology and Anthropology	2208
Urban Studies	2214

Arts and Sciences – Bachelor of Science Degree:	
Animal Behavior, Ecology and Conservation	0499.99
Biochemistry	0414
Bioinformatics	0499
Biology	0401
Chemistry	1905 ⁴
	0799
Computer Science	0701
Digital Media Arts	0605
Medical Laboratory Science	1223
Environmental Science	0420
Journalism	0602
Physics	1902
Social Sciences-General	2201
Specialized Studies	4903
Professional and Technical Studies	4999

Degree Programs:

Education and Human Services – Bachelor of Arts Degree:	
Education (Adolescence):	
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

German, Language and Culture
Health & Human Performance
History
Human Resource Management
Industrial/Organizational Psychology
Information Systems
International Business
International Management
International Relations
Irish Studies
Justice
Latin American Studies
Law & Public Policy
Leadership
Literature
Management of Technology
Mathematics
Music
Music Business
Neuroscience
North American Studies
Peace and Justice Studies
Philosophy
Psychology
Physics
Political Science
Religions of the World
Religious Studies
School Psychology
Social Sciences
Sociology
Spanish Language and Culture
Sports Psychology
Studio Arts
Supply Chain Management
Theatre Arts
Women's Studies
Writing
Zoo Biology

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.

COLLEGE OF ARTS AND SCIENCES

David W. Ewing, Dean; Debra Instone, Associate Dean and Director for Assessment; Barbara J. Porter, Associate Dean for ESL & International Education

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 J. WEHLE SCHOOL OF BUSINESS

**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.

Majors	Department
Accounting	Accounting
Accounting Information Systems	Accounting
Economics	Economics/Finance
Entrepreneurship	Management
Finance	Economics/Finance
Information Systems	Marketing & Information Systems
International Business	Management
Management	Management
Marketing	Marketing & Information Systems

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.

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

SCHOOL OF EDUCATION AND HUMAN SERVICES

Jeffrey R. Lindauer, Interim Dean; Nancy Wellenzohn, Associate Dean for Undergraduate Programs, Program Quality and Director, Accreditation; Shawn O'Rourke, Associate Dean for Graduate and Canadian Programs and Certification Officer; Tracy Callaghan, Program Coordinator; Elizabeth Brandjes, Director of Educational Partnerships and Field Experiences

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 effects 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 them 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*, p10, 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, Donohue, 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.

The development and exhibition of dispositions appropriate to teaching all children is a requirement of all Canisius teacher preparation programs. Candidates who demonstrate an unwillingness or inability to act in a mature, respectful and professional manner will be referred to the departmental Candidate Concern Committee for remediation. Outcomes of the remediation plan can include but are not limited to: probationary status for student teaching, prohibited from participation in field experiences, including student teaching, and/or repeating a field experience, including student teaching.

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

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

(120 HOURS AND 150 HOURS)

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 for 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.

ACCOUNTING BS/MBAA

Chair: Joseph B. O'Donnell

Introduction

The Department of Accounting seeks to prepare graduates with the skills that are necessary for success in the profession of accounting. Accounting professionals are expected to be competent in accounting skills, well rounded in the various disciplines of business and possess excellent communication and interpersonal skills. Students completing the accounting program find positions in public accounting, industry, the financial sector, government and nonprofit entities. The accounting curriculum is registered with the New York State Education Department and the 150 hour accounting programs meet the education requirements of the state of New York for C.P.A. licensure. To become a licensed C.P.A., an accounting graduate should also meet the experience requirement of the state of New York. Students desiring to sit for the exam and obtain their C.P.A. license in other states should check with those states for their specific requirements.

For 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.

Common body of business knowledge:		
Course	Title	Credits
Mat 105	Finite Mathematics	3
MAT 106	Calculus for the Non-Sciences	3
MAT 111	Calculus I	3
MAT 115	Calculus for Business I	4
	Arts and Sciences Electives	3
ENG 389	Business Communications	3
ACC 211	Principles of Accounting I	3
ACC 212	Principles of Accounting II	3
ECO 101	Principles of Macroeconomics	3
ECO 102	Principles of Microeconomics	3
ECO 255	Business Statistics I	3
ECO 256	Business Statistics II	3
FIN 201	Introduction to Finance	3
ISB 101	Management Technology	3
MGT 101	Introduction to Management	3
MGT 325	Operations Analysis for Business	3
MGT 446	Managerial Policy Strategy	3
MKT 201	Principles of Marketing	3
	Business International Requirement	6

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:

Course	Title	Credits
ACC 301-302	Intermediate Accounting I and II	6
ACC 303	Cost Accounting	3
ACC 307	Accounting Information Systems	3
ACC 415	Basic Taxation	3
ACC 416	Advanced Taxation	3
ACC 421	Advanced Accounting Problems	3
ACC 425	Audit Theory and Practice	3
ACC 426	Information Systems Auditing	3
ACC 451	Seminar in Accounting Theory	3
LAW 371	Business and Commercial Law	3
LAW 372	Business Organizations and Commercial Paper	3
	Accounting Electives	3
	Business Elective	3
	Free Electives	18
	Total 150 or 151 Credits	

Typical Schedule:

Fall		Spring	
Freshman Year			
FYS 101 MAT 105 or MAT 111 or MAT 115 ECO 101 RST 101 Business International Requirement	3 credits 3 or 4 credits 3 credits 3 credits 3 credits	ENG 101 PHI 101 MAT 106 or Elective ECO 102 Business International Requirement	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 or 16 credits	Total	15 credits
Sophomore Year			
MGT 101 ACC 211 ECO 255 ISB 101 Field of Knowledge (History)	3 credits 3 credits 3 credits 3 credits 3 credits	MKT 201 ACC 212 ECO 256 (Statistics) ACC 307 Field of Knowledge Arts	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 credits	Total	15 credits
Junior Year			
ACC 301 ACC 303 FIN 201 LAW 371 Field of Knowledge(Religion) Field of Knowledge (Science)	3 credits 3 credits 3 credits 3 credits 3 credits 3 credits	ACC 302 ENG 389 Capstone Field of Knowledge (Philosophy)* LAW 372	3 credits 3 credits 3 credits 3 credits 3 credits
Total	18 credits	Total	15 credits
Senior Year			
MGT 325 ACC 415 ACC 421 ACC 451 A&S Elective	3 credits 3 credits 3 credits 3 credits 3 credits	ACC 416 ACC 425 MGT 446 A&S Elective A&S Elective	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 credits	Total	15 credits
Fifth Year			
ACC 426 BUS Elective Elective Elective Elective	3 credits 3 credits 3 credits 3 credits 3 credits	ACC Elective** Elective Elective Elective	3 credits 3 credits 3 credits 3 credits
Total	15 credits	Total	12 credits
		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:

Course	Title	Credits
ACC 301-302	Intermediate Accounting I and II	6
ACC 303	Cost Accounting	3
ACC 307	Accounting Information Systems	3
LAW 371	Business and Commercial Law	3
LAW 372	Business Organizations and Commercial Paper	3

Graduate Portion

Course	Title	Credits
MBA 502	Organizational Behavior	3
MBA 507	Operations	3
MBA 508	Corporate Finance	3
MBA 620/621	Finance Elective	3
MBA 630	Marketing	3
MBA 641	Human Resources	3
MBA 690	Strategic Management	3
MBA 715	Basic Taxation	3
MBA 716	Advanced Taxation	3
MBA 721	Advanced Financial Reporting	3
MBA 725	Auditing Theory and Practice	3
MBA 726	Information Systems Auditing	3
MBA 729	Not for Profit Accounting	3
MBA 751	Accounting Theory and Research	3
	MBA Elective	3
	Total 150 or 151	

Note: Students do not take MGT 325 or 446

Typical Schedule:

Fall		Spring	
Freshman Year			
FYS 101 MAT 105 or MAT 111 or MAT 115 ECO 101 (Macro) RST 101 Business International Requirement	3 credits 3 or 4 credits 3 credits 3 credits 3 credits	ENG 101 PHI 101 MAT 106 or Elective ECO 102 (Micro) Business International Requirement	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 or 16 credits	Total	15 credits
Sophomore Year			
MGT 101 ACC 211 ECO 255 ISB 101 Field of Knowledge (History)	3 credits 3 credits 3 credits 3 credits 3 credits	MKT 201 ACC 212 ECO 256 (Statistics) ACC 307 Field of Knowledge (Arts)	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 credits	Total	15 credits
Junior Year			
ACC 301 ACC 303 FIN 201 LAW 371 Field of Knowledge (Religion) Field of Knowledge (Science)	3 credits 3 credits 3 credits 3 credits 3 credits 3 credits	ACC 302 ENG 389 Core Capstone LAW 372 Field of Knowledge (Philosophy)	3 credits 3 credits 3 credits 3 credits 3 credits
Total	18 credits	Total	15 credits
Senior Year			
MBA 715 MBA 721 MBA 751 A&S Elective A&S Elective	3 credits 3 credits 3 credits 3 credits 3 credits	MBA 716 MBA 725 MBA 507 MBA 690 A&S Elective	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 credits	Total	15 credits
Fifth Year			
MBA Elective MBA 726 MBA 502 MBA 508 MBA 630	3 credits 3 credits 3 credits 3 credits 3 credits	MBA 620/621 MBA 641 MBA 729 MBA elective	3 credits 3 credits 3 credits 3 credits
Total	15 credits	Total	12 credits
		Total 150 or 151 Credits	

* Ethics course

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:

Course	Title	Credits
ACC 301	Intermediate Accounting I	3
ACC 303	Cost Accounting	3
ACC 307	Accounting Information Systems	3
ACC 331	E-Business	3
ACC 340	Database Management	3
ACC 426	Information Systems Auditing	3
ACC 452	Enterprise Systems	3
MGT 370	Managerial Environment	3
	Free Electives	6-9
	Total Credits	120-121

Typical Schedule:

Fall		Spring	
Freshman Year			
FYS 101 MAT 105 or MAT 111 or MAT 115 ECO 101 (Macro) RST 101 Business International Requirement	3 credits 3 or 4 credits 3 credits 3 credits 3 credits	ENG 101 PHI 101 MAT 106 or Elective ECO 102 (Micro) Business International Requirement	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 or 16 credits	Total	15 credits
Sophomore Year			
MGT 101 ACC 211 ECO 255 ISB 101 Field of Knowledge (History)	3 credits 3 credits 3 credits 3 credits 3 credits	MKT 201 ACC 212 ECO 256 (Statistics) ACC 307 Field of Knowledge (Arts)	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 credits	Total	15 credits
Junior Year			
ACC 301 ACC 303 FIN 201 Field of Knowledge (Religion) Field of Knowledge (Science)	3 credits 3 credits 3 credits 3 credits 3 credits	ACC 331 ENG 389 Capstone Field of Knowledge (Philosophy*) A&S Elective	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 credits	Total	15 credits
Senior Year			
ISB 340 ACC 426 MGT 325 MGT 370 A&S Elective	3 credits 3 credits 3 credits 3 credits 3 credits	ACC 452 MGT 446 Free Elective Free Elective A&S Elective	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 credits	Total	15 credits
		Total 120-121 credits	

*Ethics Required

120 Hours – B.S. in Accounting

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

Course	Title	Credits
ACC 301-302	Intermediate Accounting I and II	6
ACC 303	Cost Accounting	3
ACC 307	Management and Accounting Information Systems	3
ACC 415	Basic Taxation	3
ACC Electives	Elective courses in Accounting	3
LAW 371	Business and Commercial Law	3
LAW 372	Business Organizations and Commercial Paper	3
	Free Electives	3-6
	Total 120-121 credits	

Typical Schedule:

Fall		Spring	
Freshman Year			
FYS 101 MAT 105 or MAT 111 or MAT 115 ECO 101 (Macro) RST 101 Business International Requirement	3 credits 3 or 4 credits 3 credits 3 credits 3 credits	ENG 101 PHI 101 MAT 106 or Elective ECO 102 (Micro) Business International Requirement	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 or 16 credits	Total	15 credits
Sophomore Year			
MGT 101 ACC 211 ECO 255 ISB 101 Field of Knowledge (History)	3 credits 3 credits 3 credits 3 credits 3 credits	MKT 201 ACC 212 ECO 256 (Statistics) ACC 307 Field of Knowledge (Arts)	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 credits	Total	15 credits
Junior Year			
ACC 301 ACC 303 FIN 201 Field of Knowledge (Religion) Field of Knowledge (Science)	3 credits 3 credits 3 credits 3 credits 3 credits	ACC 302 ENG 389 Capstone Field of Knowledge (Philosophy*) A&S Elective	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 credits	Total	15 credits
Senior Year			
ACC 415 ACC elective A&S Elective A&S Elective LAW 371	3 credits 3 credits 3 credits 3 credits 3 credits	ACC elective LAW 372 MGT 325 MGT 446 Elective	3 credits 3 credits 3 credits 3 credits 3 credits
Total	15 credits	Total	15 credits
		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:

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

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/>

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.

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):

Required courses are:		
Course	Title	Credits
ABEC 215	Introductory Animal Behavior	3
BIO 111	Intro to Bio I w lab	4
BIO 112	Intro to Bio II w lab	4
BIO 322	Conservation Biology	3
MAT 141 or PSY 201	Statistics	3
PHI 245	Animal Ethics	3
RST 229	Religious Perspectives on Animals	3

Major Electives

Any eight of the following electives must be taken:

Course	Title	Credits
ABEC 218	Applied Animal Behavior	3
ABEC 220	Animal Learning	4
ABEC 250	Zoo Animal Husbandry	3
ABEC 251	Zoo Animal Management	3
ABEC 319	Anthrozoology	3
ABEC 330	Animals, Public Policy and the Law	3
ABEC 339	Animal Enrichment	3
ABEC 350	Zoo Biology	4
ABEC 360	Observational Research Methods	4
BIO 166	Biology of Birds or BIO 366 (Ornithology)	4
BIO 312	Primateology	3
BIO 316	Social Organization of Mammals	4
BIO 317	Sex, Evolution and Behavior	3
BIO 320	Field Ecology	4
BIO 325	Reproductive Biopsychology	3
BIO 343	Entomology	4
BIO 355	Behavioral Neuroscience	3
BIO 365	Vertebrate Zoology	4
BIO 371	Behavioral Ecology	3
BIO 375	Community Ecology	3
ENG 285	Writing and Animal Studies	3
PHI 348	Environmental Ethics	3
ABEC 404	Wildlife Ecology and Conservation in South Africa	3
ABEC 490	Canisius Ambassadors for Conservation	3
ABEC 491	Internship I	3
ABEC 492	Internship II	3
ABEC 495	Research Seminar	3

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

Year	Fall Semester	Spring Semester
Freshman	ABEC 215	ABEC 218 (ABEC elective)
	BIO 111 and Lab	BIO 112 and Lab
	FYS 101	ENG 101
	PHI 101	MAT 141
	Free elective	RST 101
Sophomore	BIO 316 (ABEC elective)	BIO 317 (ABEC elective)
	Core Field requirement	Core Field requirement
	Core Field requirement	Core Field requirement
	Free elective	Free elective
	Free elective	Free elective
Junior	ABEC elective	ABEC elective
	PHI 245	ABEC elective
	Core Attribute requirement	BIO 322
	Free elective	RST 229
	Free elective	Free elective
Senior	ABEC elective	ABEC 319 (core capstone)
	ABEC elective	ABEC elective
	Free elective	Free elective
	Free elective	Free elective
	Free elective	Free elective

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.

One required course:		
Course	Title	Credits
ABEC 319	Anthrozoology	4
Plus any five of the following courses:		
Course	Title	Credits
ABEC 218	Applied Animal Behavior	3
ABEC 330	Animals, Public Policy and the Law	3
ABEC 350	Zoo Biology	4
ABEC 490	Canisius Ambassadors for Conservation	3
ABEC 491	Internship (Anthrozoology)	3
ABEC 492	Internship (Anthrozoology)	3
ABEC 495	Research Seminar (Anthrozoology Project)	3
BIO 322	Conservation Biology	3
PHI 245	Animal Ethics	3
RST 229	Religious Perspectives on Animals	3

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.

One required course:		
Course	Title	Credits
ABEC 350	Zoo Biology	4
Plus any five of the following courses:		
Course	Title	Credits
ABEC 250	Zoo Animal Husbandry	3
ABEC 251	Zoo Animal Management	3
ABEC 218	Applied Animal Behavior	3
ABEC 339	Animal Enrichment	3
ABEC 360	Observational Research Methods	4
ABEC 491	Internship (Zoo/Aquarium based)	3
ABEC 492	Internship (Zoo/Aquarium based)	3
ABEC 495	Research Seminar (Zoo-based project)	3
BIO 110	Zoo Nutrition	3
BIO 312	Primateology	3
BIO 316	Social Organization of Mammals	4
BIO 325	Reproductive Biopsychology	3

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.

One required course:		
Course	Title	Credits
ABEC 215	Introductory Animal Behavior	3
Plus any five of the following courses:		
Course	Title	Credits
ABEC 218	Applied Animal Behavior	3
ABEC 220	Animal Learning	4
ABEC 360	Observational Research Methods	4
ABEC 491	Internship (Animal Behavior)	3
ABEC 492	Internship (Animal Behavior)	3
ABEC 495	Research Seminar (Animal Behavior Project)	3
BIO 116	Biology of Birds (or BIO 366 Ornithology)	4
BIO 312	Primateology	3
BIO 316	Social Organization of Mammals	3
BIO 325	Reproductive Biopsychology	3
BIO 355	Behavioral Neuroscience	3
BIO 365	Vertebrate Zoology	4
BIO 371	Behavioral Ecology	3

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.

Animal Behavior, Ecology and Conservation Courses: 2013-2015

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]

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

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

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

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:

Year	Fall Semester	Spring Semester
Freshman	BIO 114 and Lab (4 credits)	BIO 115 and Lab (4 credits)
	ATH 170 (3 credits)	ATH 132 (2 credits)
	FYS 101 (3 credits)	ENG 101 (3 credits)
	PHI 101 (3 credits)	RST 101 (3 credits)
	Core (3 credits)	Core (3 credits)
		Core (3 credits)
Sophomore	ATH 231 (3 credits)	ATH 232 (3 credits)
	ATH 261/Lab (3 credits)	ATH 262/Lab (3 credits)
	ATH 342/Lab (3 credits)	ATH 343/Lab (3 credits)
	KIN 235 (3 credits)	HED 205 (3 credits)
	Core (3 credits)	Core (3 credits)
	Core (3 credits)	Core (3 credits)
Junior	KIN 336 and Lab (4 credits)	ATH 332 (1 credit)
	ATH 309 (3 credits)	ATH 361 (3 credits)
	ATH 331 (1 credit)	ATH 373 (3 credits)
	ATH 372 (3 credits)	ATH 398 (3 credits)
	Core (3 credits)	Core (3 credits)
	Elective (3 credits)	ATH 300 (3 credits)
Senior	ATH 431 (3 credits)	ATH 482 (3 credits)
	Core (3 credits)	ATH 498 (3 credits)
	Core (3 credits)	Capstone (3 credits)
	Elective (3 credits)	Elective (3 credits)
	Elective (3 credits)	Elective (3 credits)

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:

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

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. *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.

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>

Learning Goals and Objectives

For Learning Goals and Objectives please go to <http://www.canisius.edu/bioinformatics/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 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/>

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.

Major Courses

Course	Title	Credits
Bioinformatics:		
BIF 101/L	Introduction to Bioinformatics	4
BIF 400/L	Advanced Algorithms	4
Computer Science:		
CSC 111/L	Introduction to Computer Programming	4
CSC 212/L	Data Structures	4
CSC 213/L	Large Scale Programming	4
CSC 310/L	Information Organization and Processing	4
Mathematics:		
MAT 111	Calculus I	4
MAT 141	Statistics	4
MAT 191	Discrete Mathematics	4
Biology:		
BIO 111/L	Introductory Biology I	4
BIO 112/L	Introductory Biology II	4
BIO 211/L	Biochemistry and Cell Biology I	4
BIO 212/L	Biochemistry and Cell Biology II	4
Chemistry:		
CHM 111/L	General Chemistry I	4
CHM 112/L	General Chemistry II	4
CHM 227/L	Organic Chemistry I	4

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

Course	Title	Credits
Biology:		
BIO 404	Genetics and Lab	4
BIO 408	Biotechnology	4
BIO 412	Evolution and Development	3
BIO 419	Cell Biology and Lab	4
BIO 432	Developmental Biology and Lab	4
BIO 450	Molecular Biology and Lab	4
Chemistry:		
CHM 301-302	Classical Physical Chemistry and Lab	8
Computer Science (all courses with lab):		
CSC 313	Advanced Programming Topics	4
CSC 320	Socially Conscious App Development	4
CSC 325	Computer Graphics	4
CSC 330	Distributed Computing	4
CSC 351	Comparative Programming Languages	4
CSC 360	Intelligent Systems	4
CSC 380	Web Development	4
CSC 395	Software Engineering	4
Mathematics:		
MAT 341	Numerical Analysis	3
MAT 351-352	Probability and Statistics	3 each
MAT 354	Experimental Design and Statistical Computing	3
Physics:		
PHY 360	Scientific Modeling	3

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.

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

Additional Recommended Math Courses for Majors include

Course	Title	Credits
MAT 112	Calculus II	4
MAT 211	Calculus III	4
MAT 219	Linear Algebra	4
MAT 222	Differential Equations	4

Recommended Semester Schedule for Major Course Requirements

Year	Fall Semester	Spring Semester
Freshman	BIF 101/L (4)	CSC 111/L (4)
	BIO 111/L (4)	BIO 112/L (4)
	CHM 111/L (4)	CHM 112/L (4)
Sophomore	CSC 212/L (4)	CSC 213/L (4)
	BIO 211/L (4)	BIO 212/L (4)
	CHM 227/L (4)	MAT 191 (4)
Junior	CSC 310/L (4) (offered either Jr or Sr year) MAT 111 (4)	BIF 400/L (4) (offered either Jr or Sr year) BIF elective
Senior	CSC 310/L(4) (if not offered in junior year)	BIF 400/L (4) (if not offered in junior year)
	BIF elective	BIF elective
	MAT 141 (4)	

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:

Minor Courses

Course	Title	Credits
BIO 111/L	Introductory Biology I	4
BIO 112/L	Introductory Biology II	4
BIF 101/L	Introduction to Bioinformatics	4
BIF 400/L	Advanced Algorithms	4
CSC 111/L	Introduction to Programming	4
CSC 212/L	Data Structures	4
CSC 213/L	Large Scale Programming	4

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.

BIOLOGY

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

Course	Title	Credits
BIO 111/111L	Introductory Biology I with laboratory	4
BIO 112/112L	Introductory Biology II with laboratory	4
BIO 211/211L	Biochemistry and Cell Biology I with laboratory	4
BIO 212/212L	Biochemistry and Cell Biology II with laboratory	4
BIO 351	Biology Seminar I	1
BIO 353	Biology Seminar II	1
CHM 111-112	General Chemistry I and II with laboratories	8
CHM 227-228	Organic Chemistry I and II with laboratories	8
PHY 201-202	General Physics I and II with laboratories	8
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 III: Cellular Biology: BIO 414 Enzymes and Proteins, BIO 418 Endocrinology, BIO 419 Cell Biology, BIO 425 Cellular Neurobiology, BIO 426 Immunochemistry, BIO 432 Developmental Biology, BIO 435 Developmental Neurobiology, BIO 445 Cellular Imaging

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:

Year	Fall	Spring
Freshman	BIO 111/111L (4)	BIO 112/112L (4)
	CHM 111/111L (4)	CHM 112/112L (4)
	MAT (calculus or statistics)	MAT (calculus or statistics)
Sophomore	BIO 211/211L (4)	BIO 212/212L (4)
	CHM 227/227L (4)	CHM 228/228L (4)
		BIO 351 Seminar I (1)
Junior	PHY 201/201L (4)	PHY 202/201L (4)
	BIO Elective with lab (4)	BIO Elective with lab (4)
Senior	BIO Elective with lab (4)	BIO Elective with lab (4)
	BIO Elective (3/4)	Bio Elective (3/4)
	BIO 353 Seminar II (1)	

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.

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 351 Biology Seminar I 1 credit

Designed to provide sophomore Biology major students with the opportunity to learn various methods of preparing scientific/experimental information for oral presentation. Attendance at departmental seminars required.

BIO 353 Biology Seminar II 1 credit

Provides opportunities for fourth-year Biology major students to present seminars on research of the primary biological literature. Attendance at departmental seminars required. Prerequisite: BIO 351 Seminar I. Oral Communication Attribute for Core Curriculum

Biology Electives For Majors

**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

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.*

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.

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.

Learning Goals and Objectives

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

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.

Major Courses:

Course	Title	Credits
CHM 111/111L	General Chemistry I	4
CHM 112/112L	General Chemistry II	4
CHM 227/227L	Organic Chemistry I	4
CHM 228/228L	Organic Chemistry II	4
CHM 230/230L	Analytical Chemistry	4
CHM 244	Inorganic Chemistry	3
CHM 301/301L	Classical Physical Chemistry (lab not required for the Health Professions track)	4/3
CHM 302/302L	Modern Physical Chemistry (required only for the ACS certified track)	4
BCH 301	Introduction to Biochemistry	3
CHM 381-480-481	Seminars in Chemistry and Biochemistry	3
CHM 334/334L	Spectrometric Analysis (not required by the Health Professions track)	4
CHM 430/430L	Instrumental Analytical Chemistry (not required by the Health Professions track)	4
BCH 302	Cellular Biochemistry (required only by the Health Professions track)	3
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 Calculus II	
Other CHM tracks:		
MAT 111 and MAT 141 or MAT 111 and MAT 112	Calculus I Inferential Statistics and Computers for Science Calculus I 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 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:

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

CHM Health Professions track with business minor:

- SCI 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 430/430L (4 credits)
- CHM Elective + Lab (4 credits)
- CHM 481 (1 credit)

CHM track with business minor:

- CHM 430/430L (4 credits)
- CHM Elective + Lab (4 credits)
- CHM 481 (1 credit)
- FIN 201 (3 credits)

CHM Health Professions track:

- CHM Elective + Lab (4 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.

Learning Goals and Objectives

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

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.

Major Courses

Course	Title	Credits
CHM 111/111L	General Chemistry I	4
CHM 112/112L	General Chemistry II	4
CHM 227/227L	Organic Chemistry I	4
CHM 228/228L	Organic Chemistry II	4
CHM 230/230L	Analytical Chemistry (required only for the ACS certified track)	4
CHM 244	Inorganic Chemistry	3
CHM 301	Classical Physical Chemistry (ACS track requires CHM 301/301L)	3/4
CHM 302/302L	Modern Physical Chemistry (required only for the ACS certified track)	4
BCH 301/301L	Introduction to Biochemistry	4
BCH 302	Cellular Biochemistry	3
BCH 403/403L	Molecular Biology	4
CHM 381-480-481	Seminars in Chemistry and Biochemistry Communication	3

Spectroscopy or Instrumentation Course with lab:		
CHM 334/334L or CHM 430/430L	Spectrometric Analysis Instrumental Analytical Chemistry	4 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)
- PHY 202/202L (4 credits)
- ECO 102 (3 credits)

Junior Year

Fall

BCH ACS certified track and BCH ACS certified track with business minor:

- BCH 301/301L (4 credits)
- PHY 224/224L (4 credits)
- CHM 334/334L (4 credits)
- (Either 334/334L or 430/430L is required)

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)
- BCH403/403L (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*

CLASSICS

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

All Classics Majors:	Credits
CLS 103 Greek History or CLS 104 Roman History	3
CLS 205 Mirror of the Past: Greece or CLS 206 Mirror of the Past: Rome	3

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

Course	Credits
CLG 101 Elementary Greek	3
CLG 102 Elementary Greek	3
CLG 201-218	3
CLG 301-318	3
CLG 400 <i>Paideia</i>	3
CLL 101 Elementary Latin	3
CLL 102 Elementary Latin	3
CLL 201-218	3
CLL 301-318	3
CLL 400 <i>Humanitas</i>	3
(6 CLL credits strongly recommended for students on CLS-Greek track)	
(6 CLG credits strongly recommended for students on CLS-Latin track)	
CLS 200 The 300: Myth and Reality	3
CLS 207 Mythology and Literature	3
CLS 208 Epic Heroes	3
CLS 214 Greek and Roman Tragedy	3
CLS 215 Greek and Roman Comedy	3
CLS 300 Roman Law and Society	3
CLS 301 The Age of Cicero	3
CLS 308 Pagans and Christians	3
CLS 309 Greek and Roman Religion	3
CLS 311 Alexander the Great	3
CLS 312 The Greek Enlightenment	3

Interdepartmental Electives

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

Major Experiences

Classics majors and minors are encouraged to become members of the <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

Year	Fall Semester	Spring Semester
Freshman	CLS 103 or CLS 205 (3 credits) CLSG: CLG 101 (3 credits) or CLSL: CLL 101 (3 credits)	CLS 104 or CLS 206 (3 credits) CLSG: CLG 102 (3 credits) or CLSL: CLL 102 (3 credits)
Sophomore	CLS 207 or other major elective (3 credits) CLSG: CLG 200 level (3 credits) or CLSL: CLL 200-level (3 credits)	CLS 207 or other major elective (3 credits) CLSG: CLG 200-level (3 credits) or CLSL: CLL 200-level (3 credits)
Junior	CLSG: CLG 200 or 300-level (3 credits) CLL 101 (3 credits) or CLSL: CLL 200 or 300-level (3 credits) CLG 101 (3 credits) Major elective (3 credits)	CLSG: CLG 300-level (3 credits) CLL 102 (3 credits) or CLSL: CLL 300-level (3 credits) CLG 102 (3 credits) Major elective
Senior	CLSG: CLG 300-level (3 credits) or CLSL: CLL 300-level (3 credits) Major elective	CLSG: CLG 400 (3 credits) or CLSL: CLL 400 (3 credits) Major elective

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:

Course	Credits
Classical language: two semesters of Latin or Greek	
CLL or CLG	6
CLS 103 or CLS 104	3
CLS 205 or CLS 206	3
Classics electives: two upper-level (select from any CLG, CLL or CLS courses at the 200-level or above; FAH 210 and 213)	6
<i>Total (6 courses) 18</i>	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 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>

Learning Goals and Objectives

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

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.

Major Courses

Major Course Requirements (12 Courses)		36 Credits
Course	Title	Credits
A. Major Required Courses (6 Courses)		
COM 201	Oral Communication	3
COM 202	Communication Theory	3
COM 203	Writing for the Public Media	3
COM 204	Interpersonal Communication	3
COM 205	Mass Communication and Society	3
COM 206	Introduction to Research Methods	3
B. Sequence Courses (2 courses) 6 credits		

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.

Major Electives (4 courses)		12 Credits
Course	Title	Credits
COM 302	Small Group Communication	3
COM 304	Family Communication	3
COM 311	Principles of Advertising	3
COM 312	Public Relations: Principles and Practices	3
COM 315	Advertising and the Creative Process	3
COM 318	Organizational Communication	3
COM 319	Training and Development	3
COM 320	Advertising Writing	3
COM 323	Social Effects of Media	3
COM 325	Media Literacy	3
COM 327	Gender Differences in Human Communication	3
COM 328	Scriptwriting	3

COM 330	Public Relations Writing	3
COM 335	Communication and Personality	3
COM 337	Constructive Uses of Humor	3
COM 350	Health Communication	3
COM 351	Media Ethics	3
COM 353	Advertising Account Strategies	3
COM 354	Persuasion	3
COM 355	Advertising Media Planning/ Buying	3
COM 359	Communication and Sports	3
COM 360	Health Campaigns	3
COM 361	Introduction to Television Production	3
COM 367	Broadcasting in America	3
COM 368	Analysis of Daytime Television	3
COM 374	Film History	3
COM 375	Film Classics	3
COM 376	Film Genres	3
COM 382	Issues in Broadcasting	3
COM 385	Television & Children	3
COM 411	Advertising Campaigns	3
COM 412	Public Relations Case Studies	3
COM 413	Issues in Public Relations	3
COM 414	Issues in Advertising	3
COM 418	Interviewing	3
COM 422	Public Relations Campaigns	3
COM 479	World Cinema	3
COM 488	Internship I Seminar	3-12
COM 491	Video Institute I	3
COM 492	Video Institute II	3
COM 493	Video Institute III	3
COM 494	Video Institute IV	3
COM 498	Internship II Seminar	3-9

COM 499	Independent Study	3
DMA 201	Introduction to Digital Media	3
DMA 202	Digital Media Culture	3
DMA 204	Digital Media Law/Ethics	3
DMA 205	Digital Graphics	3
DMA 206	Interactive Multimedia	3
DMA 310	Digital Audio/Music Production	3
DMA 342	Introduction to Web Design	3
DMA 385	Digital Filmmaking	3
DMA 442	Advanced Web Design	3
FAS 140	Introduction to Still Photography	3
FAS 141	Digital Photography	3
FAS 142	Travel Photography	3
FAS 240	Color Photography	3
FAS 241	Intermediate Photography	3
JRN 310	Journalism I	3
JRN 311	Journalism II	3
JRN 322	Feature/Magazine Writing	3
JRN 336	Sports Journalism	3
JRN 363	Journalistic Editing	3
JRN 369	Television Features	3

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

Year	Fall Semester	Spring Semester
Freshman	COM 205 (3 credits)	COM 204 (3 credits)
Sophomore	COM 201 (3 credits)	COM 202 (3 credits)
	COM 206 (3 credits) or COM Elective (3 credits)	COM 203 (3 credits) or COM Elective (3 credits)
Junior	COM 206 (3 credits) or COM Elective (3 credits)	COM 203 (3 credits) or COM Elective (3 credits)
Senior	COM Elective (3 credits)	COM Elective (3 credits)
	COM Elective (3 credits)	COM Elective (3 credits)

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 411 Advertising Campaigns 3 credits

Designed as a capstone course for advertising students, this course examines current and classic advertising campaigns for technique and effectiveness. Students will also develop their own advertising campaigns. Prerequisite: COM 311 or permission of instructor.

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 compatibly matched professional setting, locally or out-of-town. Faculty and on-site supervision. Seminar required. Pass/fail. May be repeated as COM 498; 12-credit limit for COM 488/498 combined. Prerequisite: Open to junior and senior majors with G.P.A. of at least 2.50 and Communication Studies average of 2.70 and approved by department faculty. Information about the internship application process is available on the Communication Studies Department website.

COM 498 Internship II Seminar **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.

Course	Title	Credits
DMA 201	Introduction to Digital Media	3
DMA 202	Digital Media Culture	3
DMA 204	Digital Media Law/Ethics	3
DMA 205	Digital Graphics	3
DMA 206	Interactive Multimedia	3
DMA 310	Digital Audio/Music Production	3
DMA 342	Introduction to Web Design	3
DMA 385	Digital Filmmaking	3
DMA 442	Advanced Web Design	3
FAS 140	Introduction to Still Photography	3
FAS 141	Digital Photography	3
FAS 142	Travel Photography	3
FAS 240	Color Photography	3
FAS 241	Intermediate Photography	3
JRN 310	Journalism I	3
JRN 311	Journalism II	3
JRN 322	Feature/Magazine Writing	3
JRN 336	Sports Journalism	3
JRN 363	Journalistic Editing	3
JRN 369	Television Features	3

COMPUTER SCIENCE

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

Course	Title	Credits
Choose one of the following introductory courses:		
BIF 101/L or CSC 107/L	Introduction to Bioinformatics	4
or CSC 108/L	Computer Programming for Science	4
or CSC 109/L	Introduction to Web Computing	4
or CSC 127/L	Robotics Introduction to Computer Science	4
	Introduction to Game Design	4
The following Computer Science courses are required:		
CSC 111/L	Introduction to Programming	4
CSC 212/L	Data Structures	4
CSC 213/L	Large Scale Programming	4
CSC 253/L	Computer Hardware	4
CSC 281	Automata and Algorithms	3
CSC 310/L	Information Organization and Processing	4
CSC 330/L	Distributed Computing	4
CSC 351/L	Comparative Programming Languages	4
CSC 360/L	Intelligent Systems	4
CSC 391	Junior Seminar	1
CSC 395/L	Software Engineering	4
CSC 491	Senior Seminar	1

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

Year	Fall Semester	Spring Semester
Freshman	One of BIF 101/L, CSC 107/L, CSC 108/L, CSC 109/L, CSC 127/L (4)	CSC 111/L (4)
	MAT 111 (4)	BS Only: MAT 112 (4)
Sophomore	CSC 212/L (4)	CSC 213/L (4)
	CSC 253/L (4)	CSC 281 (3)
	BS Only: MAT 141 (4) or other approved MAT	MAT 191 (4)
	BS Only: Science Sequence	BS Only: Science Sequence
Junior/ Senior	CSC Elective (3-4) (take 1 elective in Jr or Sr year) CSC 310/L (4) CSC 330/L (4) CSC 351/L (4) CSC 391 (1) (take <i>Fall</i> or <i>Spring</i> of Jr year) CSC 491 (1) (take <i>Fall</i> or <i>Spring</i> of Sr Year)	CSC Elective (3-4) (take 1 elective in Jr or Sr year) CSC 360/L (4) CSC 395/L (4) CSC 391 (1) (take <i>Fall</i> or <i>Spring</i> of Jr year) CSC 491 (1) (take <i>Fall</i> or <i>Spring</i> of Sr 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. 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

Course	Credits
Computer Science Minor (5 courses, 20 credit hours)	
Choose one of the following:	
BIF 101/L Introduction to Bioinformatics or CSC 107/L Computer Programming for Science or CSC 108/L Introduction to Web Computing or CSC 109/L Robotics Introduction to Computer Science or CSC 127/L Introduction to Game Design	4
The following courses are required:	
CSC 111/L Introduction to Programming	4
CSC 212/L Data Structures	4
CSC 213/L Large Scale Programming	4
One course at 300 or 400 level, chosen after consulting with advisor	

Computer Theory Minor (5 courses, 19 credit hours)	
Choose one of the following:	
BIF 101/L Introduction to Bioinformatics or CSC 107/L Computer Programming for Science or CSC 108/L Introduction to Web Computing or CSC 109/L Robotics Introduction to Computer Science or CSC 127/L Introduction to Game Design	4
The following courses are required:	
CSC 111/L Introduction to Programming	4
CSC 212/L Data Structures	4
CSC 281 Automata and Algorithms	3
MAT 191 Introduction to Discrete Mathematics	4

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 (iPod, 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.

CREATIVE WRITING

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>

Learning Goals and Objectives

For learning goals and objectives please go to <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/>

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

Course	Title	Credits
ENG 294	Introduction to Creative Writing	3
ENG 299	Introduction to English Studies	3
	Contemporary literature: one course	3
	British literature: one course	3
	American literature: one course	3
ENG 490	Creative Writing major capstone seminar	3
Three of the following creative writing courses:		
ENG 342	Writing Young Adult Fiction	3
ENG 388	Literary Publishing	3
ENG 391	Advanced Creative Writing: Fiction	3
ENG 392	Advanced Creative Writing: Poetry	3
ENG 393	Advanced Creative Writing: Memoir	3
ENG 411	Playwriting	3
ENG 498	Internship	3

Major Electives

Three literature courses. 9 credits.

Major Experiences

The Canisius College Contemporary Writers Series brings nationally known writers to meet with Canisius students and to discuss their craft in an informal setting. The Quadrangle is the Canisius journal of literary and visual arts. Students may publish their own pieces or work as editors gaining real-world publishing skills. Internships with local literary publishers and arts organizations provide our students the opportunity to participate in the vibrant Buffalo literary scene and to acquire professional experience as writers, teachers, editors, and administrators.

Recommended Semester Schedule for Major Course Requirements

Year	Fall Semester	Spring Semester
Freshman		
Sophomore	ENG 294 (3 credits)	Creative Writing elective
	ENG 299 (3 credits)	American Literature requirement
Junior	Creative Writing elective	Creative Writing elective
	British Literature requirement	Contemporary Literature requirement
Senior	ENG 490 (3) credits	Literature elective
	Literature elective	Literature elective

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

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:

Total 5 Courses

Course	Title	Credits
ENG 294	Introduction to Creative Writing	3
Three of the following creative writing courses:		
ENG 342	Writing Young Adult Fiction	3
ENG 388	Literary Publishing	3
ENG 391	Advanced Creative Writing: Fiction	3
ENG 392	Advanced Creative Writing: Poetry	3
ENG 393	Advanced Creative Writing: Memoir	3
ENG 411	Playwriting	3
ENG 498	Internship	3
ENG 490	Creative Writing major capstone seminar	3

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.

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.

DIGITAL MEDIA ARTS

Director: James M. O'Neil

Introduction

The Digital Media Arts major, offered through the Communication Studies Department, focuses on converging fields of study in design, animation, 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.

Course	Title	Credits
DMA 201	Intro to Digital Media	3
DMA 202	Digital Media Culture	3
DMA 203	Digital Design Concepts	3
DMA 204	Digital Media Law	3
DMA 205	Digital Graphics	3
DMA 206	Interactive Multimedia	3
DMA 207	Digital Media Programming	3
DMA 408	Capstone	3

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.

Course	Title	Credits
Graphic Design/Web Design		
DMA 342	Intro to Web Design	3
DMA 363	Print Design	3
DMA 384	Digital Typography	3
DMA 393	Advertising Design	3
DMA 395	Digital Illustration	3
DMA 442	Advanced Web Design	3
3D Animation/Game Design		
DMA 346	Video Games: History and Technique	3
DMA 347	Electronic Game Design	3
DMA 351	3D Modeling, Texturing and Lighting	3
DMA 352	3D Character Animation	3
DMA 353	3D Dynamics	3
DMA 354	3D Graphics for Electronic Games	3
DMA 370	Designing for Mobile Devices	3
DMA 371	Game Design for Mobile Devices	3
Digital Filmmaking		
DMA 309	Digital Music Technology	3
DMA 310	Digital Audio/Music Production	3
DMA 316	Intro to Special Effects	3
DMA 317	Intro to Motion Graphics	3
DMA 385	Intro to Digital Filmmaking	3
DMA 399	Social Documentary	3

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

Year	Fall Semester	Spring Semester
Freshman	DMA 201 (3 credits)	DMA 206 (3 credits)
Sophomore	DMA 202 (3 credits)	DMA 205 (3 credits)
	DMA 207 (3 credits)	DMA Elective
Junior	DMA 203 (3 credits)	DMA 204 (3 credits)
	DMA Elective	DMA Elective
Senior	DMA Elective	DMA 408 (3 credits)
	DMA Elective	DMA Elective

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, publication 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 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 innovational, intellectual, design and technical skills in multimedia and cyber-communication projects. Authoring, video and sound editing computer applications, animation, as well as cyberspace file transfer and programming are emphasized. Prerequisite: DMA 203 or permission of instructor.

DMA 395 Digital Illustration 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.

Course	Title	Credits
COM 311	Principles of Advertising (<i>Fall</i>)	3
COM 315	Advertising and the Creative Process (<i>Fall</i>)	3
COM 325	Media Literacy (<i>Fall</i>)	3
COM 361	Introduction to TV Production (<i>Fall</i>)	3
COM 373	Best Picture: Academy Awards	3
COM 374	Film History	3
COM 375	Film Classics	3
COM 376	Film Genres	3
COM 491, 492, 493-	Video Institute I, II , III	3
CSC 108	Intro to Web Computing	3
CSC 111	Intro to Programming	4
CSC 127	Introduction to Game Programming	3
CSE 121	Introduction to Physical Computing	3
ENT 201	Introduction to Entrepreneurship	3
FAS 110	2 D Design	3
FAS 120	Drawing I	3
FAS 130	3D Design	3
FAS 140	Intro to Still Photography	3
FAS 141	Digital Photography	3
FAS 142	Travel Photography	3
FAS 150	Color	3
FAS 170	Painting I	3
ISB 455	E-Commerce and Web Design	3
ISB 470	Cyber Security	3
PHI 291	Philosophy of Art and Beauty	3
PHI 397	Philosophy and Film	3
SOC 324	Visual Sociology	3

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.

ECONOMICS

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

One Field of Knowledge 7 Mathematics Course:		
Course	Title	Credits
MAT 105 and MAT 106 or MAT 115 or MAT 111	Finite Mathematics Calculus for the Non-Sciences Calculus for Business I Calculus I	3 3 4 4

(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).

Course	Title	Credits
ECO 101	Principles of Macroeconomics	3
ECO 102	Principles of Microeconomics	3
ECO 205	Intermediate Macroeconomics Analysis	3
ECO 206	Intermediate Microeconomics Analysis	3
ECO 255	Business Statistics I	3
ECO 256	Business Statistics II	3
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

Year	Fall Semester	Spring Semester
Freshman	FYS 101 (3 credits)	ENG 101 (3 credits)
	ECO 101 (3 credits)	ECO 102 (3 credits)
	MAT 105 (3 credits) or MAT 115 (4 credits) or MAT 111	MAT 106 (3 credits) or Free Elective if MAT 115/111
	RST 101 (3 credits)	PHI 101 (3 credits)
	Free Elective	Free Elective
Sophomore	ECO 205 (3 credits)	ECO 206 (3 credits)
	ECO 255 (3 credits)	ECO 256 (3 credits)
	Field of Knowledge 4	ECO Elective
	Free Elective	Free Elective
	Free Elective	Free Elective
Junior	ECO Elective	ECO Elective
	Field of Knowledge 1	Field of Knowledge 2
	Field of Knowledge 3	Core Capstone
	Field of Knowledge 6	Free Elective
	Free Elective	Free Elective
Senior	ECO Elective	ECO Elective
	Free Elective	Free Elective
	Free Elective	Free Elective
	Free Elective	Free Elective
	Free Elective	Free Elective

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)

BUSINESS ECONOMICS

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

Common body of business knowledge:		
Course	Title	Credits
MAT 105 and MAT 106 or MAT 115 or MAT 111	Finite Mathematics Calculus for the Non-Sciences Calculus for Business I Calculus I	3 3 4 4
(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.)		
ACC 201	Financial Accounting	3
ACC 202	Managerial Accounting	3
ECO 101	Principles of Macroeconomics	3
ECO 102	Principles of Microeconomics	3
ECO 255	Business Statistics I	3
ECO 256	Business Statistics II	3

FIN 201	Introduction to Finance	3
ISB 101	Management Technology	3
MGT 101	Introduction to Management	3
MGT 325	Operations Analysis for Business	3
MGT 370	Managerial Environment	3
MGT 446	Managerial Policy Strategy	3
MKT 201	Principles of Marketing	3

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.

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

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.

FINANCE

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.

Major Courses		
Course	Title	Credits
MAT 105 and MAT 106 or MAT 115 or MAT 111	Finite Mathematics Calculus for the Non-Sciences Calculus for Business I Calculus I	3 3 4 4

(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.)

Course	Title	Credits
ECO 101	Principles of Macroeconomics	3
ECO 102	Principles of Microeconomics	3
ECO 255	Business Statistics I	3
ECO 256	Business Statistics II	3
ISB 101	Management Technology	3
FIN 201	Introduction to Finance	3
MGT 101	Introduction to Management	3
MGT 325	Operations Analysis for Business	3
MGT 370	Managerial Environment	3
MGT 446	Managerial Policy Strategy	3
MKT 201	Principles of Marketing	3
Finance major:		
FIN 311	Corporate Finance	3
FIN 312	Investments	3
FIN 414	Portfolio Management	3

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

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

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.

EDUCATION – EARLY CHILDHOOD BIRTH – GR. 2

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 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.

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:

Course	Title	Credits
EDE 100	Human Growth and Social Development: Birth-Childhood	3
EDE 121	Introduction to Literacy, Children's Literature and the Arts	3
EDE 122	Technology in Education	3
EDY 208	Infant/Toddler Care & Education	3
EDY 209	Developmentally Appropriate Practices in EC Classrooms: Playing to Learn	3
ECCH 221	Literacy I	3
ECCH 222	Literacy II	3
EDU 250	Foundations of Education	3
EDY 306	Music, Movement, and the Arts in EC Classrooms	3
EDY 310	Teaching Math/Science in EC Classrooms	3
SPE 341	Inclusive Strategies	3
EDE 390	Cognition, Learning, and Assessment Birth-Childhood	3
ECCH 412	Managing the EC and Elementary Classroom	3
EDY 433	Seminar in Teaching and Assessment Birth-Childhood	3
EDY 493	Student Teaching BC	3
SPE 494	Capstone Seminar for Teacher Candidates	3
EDU 495	Child Abuse Seminar	0
EDU 496	Prevention of School Violence Workshop	0

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>

Dual Majors

Students who wish to expand their educational opportunities may decide to declare a dual major. The decision may be based on career goals or planned graduate studies. Before a student declares a dual major it is important to meet with the appropriate academic departments for advisement. In order to declare a dual major, the student must complete the appropriate dual major request form and get the signature of each department chairperson and the appropriate associate dean.

CHILDHOOD EDUCATION

GR. 1-6

Chair: Julie Henry, 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/childhood-ed/index.dot>

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.

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:

Course	Title	Credits
EDE 100	Human Growth and Social Development: Birth-Childhood	3
EDE 121	Introduction to Literacy, Children's Literature and the Arts	3
EDE 122	Technology in Education	3
ECCH 221	Literacy I	3
ECCH 222	Literacy II	3
EDU 250	Foundations of Education	3
EDE 311	Science in the Schools	3
EDE 317	Teaching Math in Elementary Schools	3
EDE 331	Teaching Social Studies in Elementary Schools	3
SPE 341	Inclusive Strategies	3
EDE 390	Cognition, Learning, and Assessment Birth-Childhood	3
ECCH 412	Managing the EC and Elementary Classroom	3
EDY 432	Seminar in Teaching and Assessment Elementary	3
ECCH 493	Student Teaching	12
ECCH 494	Capstone Seminar for Teacher Candidates	3
EDU 495	Child Abuse Seminar	0
EDU 496	Prevention of School Violence Workshop	0

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>

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

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:

Course	Title	Credits
EDE 100	Human Growth and Social Development: Birth-Childhood	3
EDE 121	Introduction to Literacy, Children's Literature and the Arts	3
EDE 122	Technology in Education	3
EDY 208	Infant/Toddler Care and Education	3
EDY 209	Developmentally Appropriate Practices in EC Classrooms: Playing to Learn	3
ECCH 221	Literacy I	3
ECCH 222	Literacy II	3
EDU 250	Foundations of Education	3
EDY 306	Music, Movement, and the Arts in EC Classrooms	3
EDE 311	Science in the Schools	3
EDE 317	Teaching Math in Elementary Schools	3
EDE 331	Teaching Social Studies in Elementary Schools	3
SPE 341	Inclusive Strategies	3
EDE 390	Cognition, Learning, and Assessment Birth-Childhood	3
ECCH 412	Managing the EC and Elementary Classroom	3
EDE 432	Seminar in Teaching and Assessment Elementary	3
ECCH 493	Student Teaching	12
ECCH 494	Capstone Seminar for Teacher Candidates	3
EDU 495	Child Abuse Seminar	0
EDU 496	Prevention of School Violence Workshop	0

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>

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 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:

Course	Title	Credits
EDE 100	Human Growth and Social Development: Birth-Childhood	3
EDE 121	Introduction to Literacy, Children's Literature and the Arts	3
EDE 122	Technology in Education	3
ECCH 221	Literacy I	3
ECCH 222	Literacy II	3
SPE 291	Nature and Needs of EC Students with Learning Disabilities	3
SPE 292	Remedial Strategies for Teaching in the EC Content Areas	3
EDU 250	Foundations of Education	3
SPE 311	Nature/Needs of EC Students with Developmental Disabilities	3
SPE 312	Multidisciplinary Assessment and Teaching: EC	3
EDE 317	Teaching Math in Elementary Schools	3
EDE 390	Cognition, Learning and Assessment Birth-Childhood	3
SPE 330	Nature/Needs of EC Students with Behavior Disorders	3
SPE 335	Classroom Management in the Childhood Classrooms	3
SPE 432	Seminar in Teaching and Assessment	3
SPEB 494	Capstone Seminar for Teacher Candidates	3
EDU 495	Child Abuse Seminar	0
EDU 496	Prevention of School Violence Workshop	0
SPEB 493	Student Teaching	12

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 <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 3 credits

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 3 credits

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 3 credits

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 3 credits

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 3 credits

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 3 credits

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 3 credits

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 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 childhood level. Requires 50 hours of field placement.

EDE 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.

EDY 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.

ECCH 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.

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

Describes effects of MR and other developmental disabilities on childhood. Focuses on collaborative strategies for parental involvement. Highlights instructional strategies for grades 1-6 across the continuum of services. Requires 20 hours field placement. Prerequisites: SPE 291 and SPE 292. Concurrent enrollment in SPE 312

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 311.

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.

ENGLISH

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

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

Course	Title	Credits
ENG 299	Introduction to English Studies	3
ENG 300	level Shakespeare: (one)	3
ENG 300	level British Literature before 1800: (one)	3
ENG 300	level American Literature before 1900: (one)	3
ENG 200	level or ENG 300 level Writing/Rhetoric: (one)	3
	English major senior seminar	3
	200-level English electives: 2 courses	6
	English Major electives: 4 courses (3/4 at 300-level)	12

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

Year	Fall Semester	Spring Semester
Freshman		
Sophomore	200-level English elective	ENG 299
	200-level English elective	Writing/Rhetoric or Major elective
Junior	Shakespeare	Pre-1800 British Literature
	Major Elective	Writing/Rhetoric or Major elective
Senior	Major Elective	English Major Senior Seminar
	Major Elective	Major Elective

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)		
Course		Credits
English 200 level	Elective Course (one)	3
ENG 299	Introduction to English Studies	3
English 300/400 level	British Literature course (one)	3
English 300/400 level	American Literature course (one)	3
English 300 level	Shakespeare course (one)	3
English 200/300/400 level	Writing/Rhetoric (one)	3

The Writing Minor: 5 courses (for majors and non-majors)		
Course	Title	Credits
ENG 401	Texts, Context, and Subtext (offered every other <i>spring</i>)	3
ENG 498	Internship (one of the student's choice, with advice of a faculty supervisor)	3
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		
ENG 205	Varieties of the Essay	3
ENG 294	Creative Writing	3
ENG 342	Writing Young Adult Fiction	3
ENG 385	Persuasive Writing	3
ENG 388	Literary Publishing	3
ENG 389	Business Communication	3
ENG 402	Creativity and Composition Theory	3
ENG 411	Playwriting	3
ENG 426	Advance Playwriting	3

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/)

Course	Title	Credits
Required Courses:		
ENG 294	Introduction to Creative Writing	3
ENG 490	Creative Writing Capstone	3
Required: Three of the following Creative Writing Courses:		
ENG 342	Young Adult Fiction	3
ENG 388	Literary Publishing	3
ENG 392	Advanced Creative Writing: Poetry	3
ENG 411	Playwriting	3
ENG 426	Advanced Playwriting	3
ENG 494	Advanced Creative Writing: Fiction	3
ENG 496	Advanced Creative Writing: Memoir	3
ENG 498	Internship	3

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.)

Course	Title	Credits
ENG 147 or ENG 148	Acting I Acting II	3 3
ENG 202	Drama	3
ENG 346 or ENG 350	Introduction to Theatre The Theatre Experience	3 3
ENG 411 or ENG 426 or	Playwriting Advanced Playwriting Theatre arts elective	3 3 3
ENG 498	Internship	3

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.

**ENG 222 Vampires in Literature and Culture
(Field 3, Advanced Writing Intensive) 3 credits**

The image of the vampire in English and American literature and culture, covered in a range of literary and other aesthetic genres and historical periods. Open to majors and non-majors.

**ENG 223 Images of Women in Literature and Film
(Field 3, Advanced Writing Intensive) 3 credits**

Representations of women as major characters in literature and film. Open to majors and non-majors.

**ENG 224 The Journey in World Literature (Field 3,
Global Awareness, Advanced Writing Intensive) 3 credits**

Explores the concept of the journey in international literature from a number of cultural and intellectual perspectives. Open to majors and non-majors.

**ENG 225 The Journey in American Literature
(Field 3, Diversity, Advanced Writing Intensive) 3 credits**

Explores the concept of the journey in American Literature. Open to majors and non-majors.

**ENG 230 The Bible as Literature
(Field 3, Advanced Writing Intensive) 3 credits**

A study of the Bible as literary text and cultural source, integrating film, painting and sculpture as representations of biblical images for interpretation.

ENG 264 Short Fiction (Field 3) 3 credits

Detailed investigation of various modes of short fiction to develop students' ability to read, comprehend and appreciate short fiction through an understanding of its techniques.

**ENG 285 Representations of Animals in Film and
Literature (Field 3, Advanced Writing Intensive) 3 credits**

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.

**ENG 294 Introduction to Creative Writing
(Field 3, Advanced Writing Intensive) 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 299 Introduction to English Studies 3 credits

Introduction to the essentials of literary analysis and interpretation. Focusing on the rigorous analysis of poetry, prose narrative and drama chosen from different historical periods, the course will stress writing with critical awareness about literature. Required of all English majors.

ENG 303 Medieval Literature 3 credits

A survey of the major voices of medieval British literature centering on Chaucer.

ENG 305 Seventeenth Century Literature 3 credits

A survey of the poetry and prose of major British authors from the Renaissance to the Restoration.

ENG 306 Eighteenth Century Literature 3 credits

A survey of the poetry and prose of major British authors in the "long" eighteenth century.

ENG 307 English Gothic Novel 3 credits

Characterized by opposing forces: knowledge and mystery, good and evil, the beautiful and the sublime, light and dark, these novels often dramatize psychological, social and sexual conflict.

ENG 308 Nineteenth Century British Literature 3 credits

A survey of the major works and authors of the Romantic and Victorian periods.

**ENG 309 Modern and Contemporary British
Literature 3 credits**

A survey of representative figures and genres in British literature of the twentieth-century and beyond.

ENG 311 Women Writers 3 credits

Works by women writers from all periods and backgrounds. (WST)

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, sentimentality, 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 331 Studies in Irish Literature 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 333 James Joyce's Ulysses 3 credits

Semester-long seminar in the study of the novel.

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 346 Introduction to Theater (Field 3) 3 credits

The collaborative efforts of theater, play and audience to create the theater experience. Exploration of the development of modern theater from its ritualistic roots to modern times.

ENG 347 English Novel I 3 credits

Studies a range of seventeenth- and eighteenth-century novels and their contexts, including both experimental works and traditional domestic tales.

ENG 348 English Novel II 3 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 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 history, social sciences and religion; readings will have some 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>

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/>

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/>

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)

Course	Title	Credits
Common body of business knowledge: 14-15 courses)		
MAT 105 and MAT 106 or MAT 111 or MAT 115	Finite Mathematics Calculus for the Non-Science Calculus I Calculus for Business I	3 3 4 3
ACC 201	Financial Accounting	3
ACC 202	Managerial Accounting	3
ECO 101	Principles of Macroeconomics	3
ECO 102	Principles of Microeconomics	3
ECO 255	Business Statistics I	3
ECO 256	Business Statistics II	3
FIN 201	Introduction to Finance	3
ISB 101	Management Technology	3
MGT 101	Introduction to Management	3
MGT 325	Operations Analysis for Business	3
MGT 370	Managerial Environment	3
MGT 446	Managerial Policy/Strategy	3
MKT 201	Principles of Marketing (ENT section)	3

Entrepreneurship Major Curriculum		
ENT 101	Experiential Entrepreneurship: Creativity, Innovation, Opportunity, and Idea Generation	3
ENT 201	Introduction to Entrepreneurship	3
ENT 401	Small Business Management and Entrepreneurship	3
ENT 402	New Venture Creation	3
Major Electives		
Entrepreneurship electives: (3 courses)		
ENT 310	International Entrepreneurship Practicum	3
ENT 311	Entrepreneurship and Family Business	3
ENT 312	International Entrepreneurship	3
ENT 314	Social Entrepreneurship and Not-for-Profit Sector Enterprise	3
ENT 411	Entrepreneurial and Managerial Leadership Skill Development	3
ENT 414	Franchising and Entrepreneurship	3
ENT 496	Internship in Entrepreneurship	3
ENT 497	Entrepreneurial Summer Internship in Korea	3
ENT 499	Independent Study in Entrepreneurship	3
ABR 496	Contemporary Business and Culture in Korea	3
DMA 201	Introduction to Digital Media Arts	3
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:

Course	Title	Credits
MKT 201	Principles of Marketing (ENT Section)	3
Possible Entrepreneurship electives include:		3
ENT 310	International Entrepreneurship Practicum	3
ENT 311	Entrepreneurship and Family Business	3
ENT 312	International Entrepreneurship	3
ENT 314	Social Entrepreneurship and Not-for-Profit Sector Enterprise	3
ENT 411	Entrepreneurial Leadership	3
ENT 414	Franchising and Entrepreneurship	3
ENT 496	Internship in Entrepreneurship	3
ENT 497	Entrepreneurial Summer Internship in Korea	3
ENT 498	Practicum in Entrepreneurship	0
ENT 499	Independent Study in Entrepreneurship	3
MGT 307	US Business History	3
MGT 360	Organizational Behavior	3
MGT 364	Human Resources Management	3
MGT 380	International Business Seminar	3
MGT 434	Technology Management	3
MGT 437	Project Management	3
MGT 472	Comparative Management Systems (International)	3
MKT 474	Doing Business in Canada	3
MKT 476	Doing Business in Mexico	3
MKT 310	Money, Heaven and Right Living	3
MKT 320	Consumer Behavior	3
MKT 390	New Product Development	3
MKT 396	Promotion/Advertising	3
DMA 201	Introduction to Digital Media Arts	3

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

Year	Fall Semester	Spring Semester
Freshman	FYS 101 (3 credits)	ENT 101 (3 credits)
	MAT 105 (3 credits) or MAT 111 or MAT 115 (3 credits)	MAT 106 (3 credits) or Free Elect if MAT 115/111
	RST 101	ECO 102 MICRO (3 credits)
	ECO 101 MACRO (3 credits) (Social Science Field of Knowledge 5)	ENG 101 (3 credits)
	Business International Requirement (2 semesters of language or approved regional studies HIS 107-108, 109-110, 131-132, when taken is flexible)	Business International Requirement (2 semester sequence required)

Sophomore	ENT 201 (3 credits)	MGT 101 (3 credits)
	ACC 201 (3 credits)	ACC 202 (3 credits)
	ISB 101 (3 credits)	PHI 101 (3 credits)
	History (3 credits) (Field of Knowledge 4)	Arts (3 credits) (Field of Knowledge 3)
	ECO 255 STATS 1 (3 credits) (Field of Knowledge 7)	ECO 256 STATS 2 (3 credits)
Junior	ENT elective (3 credits)	ENT elective (3 credits)
	FIN 201 (3 credits)	Free Elective (3 credits)
	MKT 201 (ENT section) (3 credits)	MGT 325 (3 credits)
	Natural Science (3 credits) (Field of Knowledge 5)	Philosophy (3 credits) (Field of Knowledge 2 with Ethics attribute)
	Religion (3 credits) (Field of Knowledge 1)	Core capstone (3 credits)
Senior	ENT 401 (3 credits)	ENT 402 (3 credits)
	ENT Elective (3 credits)	Free Elective (3 credits)
	MGT 370 (3 credits)	MGT 446 (3 credits)
	Arts and Sciences Elective (3 credits)	Arts and Sciences Elective (3 credits)
	Arts and Sciences Elective (3 credits)	Arts and Sciences Elective (3 credits)

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 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*

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

Course	Title	Credits
BIO 111/111L	Introductory Biology I and Lab	4
BIO 112/112L	Introductory Biology II and Lab	4
BIO 211/211L	Biochemistry and Cell Biology I and Lab	4
BIO 212/212L	Biochemistry and Cell Biology II and Lab	4
CHM 111/111L	General Chemistry I and Lab	4
CHM 112/112L	General Chemistry II and Lab	4
CHM 227/227L	Organic Chemistry and Lab	4
PSY 201 or MAT 141	Basic Statistics for Behavioral Science	3
	Inferential Statistics and Computers	4

MAT 111 or MAT 109-110	Calculus Calculus with Review I and II	4 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		
<i>Students must complete two of the following (at least one with a lab):</i>		
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

Course	Title	Credits
EVST 110	Science of Environmental Problems I	3
EVST 111	Science of Environmental Problems II	3
SOC 234	Environmental and Society	3
SOC 342 or PSC 217 or ANT 351	Social Research Methods Social Research Methods Qualitative Research Methods	3 3 3
RST 342 or PHI 244	Theological Ethics and Environmental Justice Environmental Ethics	3 3
ECO 101	Macroeconomics	3
ECO 310/311	Introduction to Geographic Information Systems	3
EVST 400	Environmental Studies Capstone	3

Major Electives

Students need to complete 5 additional courses: 4 courses from any of the designated major tracks; and EVST 498 Environmental Studies Internship (3).

Environmental Justice Track

Focuses student attention on social and environmental justice through the use of critical thinking of structural problems and how these issues are applied to environmental problems and human society.

Course	Title	Credits
EVST 275	Global Environmental History	3
SOC 273	Social Movements and Social Change	3
SOC 340	Sociology of the City	3
PHI 245	Animal Ethics	3
PSY 329	Leadership and Motivation	3

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.

Course	Title	Credits
EVST 235	Environmental Policy and Green Theory	3
EVST 259	Environmental History of the United States	3
EVST 275	Global Environmental History	
COM 302	Small Group Communication	3
BIO 135	Environmental Biology	3
ENT 101	Experiential Entrepreneurship: Creativity, Innovation, Opportunity, and Idea Generation	3
PSC 242	International Organizations	3

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.

Course	Title	Credits
EVST 275	Global Environmental History	3
ENT 101	Experiential Entrepreneurship: Creativity, Innovation, Opportunity, and Idea Generation	3
ENT 314	Social Entrepreneurship and Not-for-Profit Sector Enterprise	3
ISB 302	Sustainable Dynamics	3
MGT 440	Global Supply Chain Management	3
MGT 479	Current Topics in Global Supply Chain Management	3

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.

Course	Title	Credits
EVST 275	Global Environmental History	3
COM 348	Environmental Communication	3
SOC 330	Health and Wellness	3
BIO 116	Disease, Myth and Reality	3
BIO 135	Environmental Biology	3

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 Semester Schedule for Major Course Requirements:

Fall		Credits
Freshman	EVST 110: Science of Environmental Problems I	3
	ECO 101: Principles of Macroeconomics	3
Sophomore	SOC 342/PSC 217/ANT 351: Social Research Methods	3
	RST 342/PHI 244: Environmental Ethics	3
Junior	ECO 310: Introduction to Geographical Information Systems	3
	Track Option Elective	
Senior	EVST 498: Environmental Internship	3

Spring		Credits
Freshman	EVST 111: Science of Environmental Problems II	3
Sophomore	SOC 234: Environment and Society	3
	Track Option Elective	
Junior	Track Option Elective	
Senior	Track Option Elective	
	EVST 400: Capstone in Environmental Studies	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.

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>. Students may also enjoy an international living experience in the Champion residence hall.

Recommended Semester Schedule for Major Course Requirements

Year	Fall Semester	Spring Semester
Freshman	FRC 215, GER 215 or SPA 215	FRC 217, GER 216 or SPA 217
	PSC 150A or Field 4 Course on European History	
Sophomore	Foreign Language, Literature and Culture Major Electives	Foreign Language, Literature and Culture Major Electives
	History and Politics Major Elective	History and Politics Major Elective
Junior	European Studies Major Elective	History and Politics Major Elective
Senior	European Studies Major Elective	

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.

FINE ARTS – ART HISTORY

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.

Required Courses		
Course	Title	Credits
FAH 101	Cave Paintings, the Colosseum & Cathedrals	3
FAH 102	Altarpieces, Academies & the Avant-Garde	3
	Ancient and/or medieval art: one course	3
	Renaissance and/or Baroque art: one course	3
	Art since 1800: one course	3
	Non-Western or Non Period-Based Topic: one course	3
	One 300-level Art History course	3
FAH 450	Senior Seminar	3

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:

Year	Fall Semester	Spring Semester
Freshman	FAH 101	FAH 102
Sophomore	Course in Renaissance and/or Baroque art	Course in Ancient and/or medieval art
	Art History Elective	Art History Elective
Junior	Non-Western or Non-Period Based Art History Course*	Course in Art Since 1800*
	Museum Internship or Art History Elective	Art History Elective
Senior	300 Level Art History Course*	Senior Seminar*

* - 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		
Course	Title	Credits
FAH 101	Introduction to Art History I	3
FAH 102	Introduction to Art History II	3
	Ancient and/or medieval art: one course	3
	Renaissance and/or Baroque art: one course	3
	Art since 1800: one course	3
	Non-Western or non-period-based topic: one course	3
	One 300 level Art History course	3
FAH 450	Senior Seminar	3

The following courses may also be used as electives towards the art history major:

Course	Title	Credits
COM 374	Film History	3
COM 375	Film Classics	3
COM 376	Film Genres	3
COM 479	World Cinema	3
FAS 110	Two-Dimensional Design	3
FAS 120	Drawing I	3
FAS 130	Three-Dimensional Design	3
FAS 150	Color	3
PHI 291	Philosophy of Art and Beauty	3
RST 314	New Testament in Literature and Art	3

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*

FAH 248 Baroque Art **3 credits**

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*

FAH 261 Monet and the Age of Impressionism **3 credits**

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*

FAH 262 Modern Art **3 credits**

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*

FAH 265 Contemporary Art **3 credits**

Visual and cultural analysis of major works from the United States and Western Europe, from 1945 to the present. (Field 3, Global Awareness) *Spring*

FAH 266 Modern Architecture **3 credits**

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*

FAH 267 Frank Lloyd Wright **3 credits**

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*

FAH 271 Art in Buffalo **3 credits**

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*

FAH 350 Topics in Art History **3 credits**

Varying topics in art. Course will run as a seminar. Major or minor status or permission of the instructor. (Intensive Writing) *Fall*

FAH 352 Museum Studies **3 credits**

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*

FAH 450 Senior Seminar **3 credits**

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*

FAH 460 Museum Internship **3 credits**

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*

FAH 480 Art, Beauty, and Terror in the 20th Century **3 credits**

Core Capstone. *Spring*

FAH 499 Independent Study in Art History **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.

FINE ARTS – MUSIC

Director: Jane Cary

Introduction:

The study of music develops and enhances analytical, creative, listening, and performing skills. Music majors choose a concentration in one of four sequences—music history and literature, music education, music technology, or music business—or they can follow the Music Performance or Music Major with a Music Business Concentration curricula (these two programs are described in separate catalog entries). The Buffalo Philharmonic Orchestra has a special relationship with Canisius College, and several of its members are on the music faculty. Performance, both individual and ensemble, is an integral part of the Music Program: students may perform in the Chorale, Chamber Orchestra, Concert Band, Jazz Ensemble and other ensembles, and there are many other opportunities for student performance. As an adjunct to the Music Program, the ArtsCanisius cultural series features concerts by faculty and guest artists that range from classical music to jazz. Students who would like to study music, but not as a major, may combine a Music Minor with another discipline or may choose the Music Concentration offered in the Early Childhood and Childhood Education Programs.

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:

Course	Title	Credits
FAM 119	Masterpieces of Music	3
FAM 210	Keyboard Musicianship	3
FAM 230/230L	Music Theory I and Lab	4
FAM 240/240L	Music Theory II and Lab	4
FAM 330/330L	Music Theory III and Lab	4
FAM 340/340L	Music Theory IV and Lab	4
FAM 450	Senior Seminar	3
FAM 255	Music Performance: four semesters	8
FAM Music History Course (choose one of the following)		
FAM 216	Medieval and Renaissance Music	3
FAM 217	Music of the Baroque Period	3
FAM 218	Music of the Classical Period	3
FAM 219	19th Century Music	3
FAM 220	Art Music from 1900 to the Present	3

Music Ensemble:

Majors must take the same ensemble for all eight semesters. A student may take a music ensemble for one (1) credit:

Course	Title	Credit
FAM 181	Chorale	1
FAM 182	Jazz Ensemble	1
FAM 184	Chamber Orchestra	1
FAM 185	Concert Band	1
<i>or for zero (0) credit:</i>		
FAM 171	Chorale	0
FAM 172	Jazz Ensemble	0
FAM 174	Chamber Orchestra	0
FAM 175	Concert Band	0

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):

<i>History and Literature Sequence: 9 credits</i>	
Three additional Music History Courses	
<i>Music Technology Sequence: 9 credits</i>	
DMA 309	Music Technology
DMA 310	Digital Audio/Music Production, and
One Music Elective	
<i>Music Education Sequence: 9 credits</i>	
FAM 250	Music for Children
FAM 350	Basic Conducting, and
One Music Elective	
<i>Music Business Sequence: 9 credits</i>	
FAM 360	Music Business I
FAM 361	Music Business II

<i>choose either:</i>	
DMA 309	Music Technology
DMA 310	or 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:

Course	Title	Credits
FAM 216	Medieval and Renaissance Music	3
FAM 217	Music of the Baroque Period	3
FAM 218	Music of the Classical Period	3
FAM 219	19th Century Music	3
FAM 220	Art Music from 1900 to the Present	3
<i>Music Electives can be chosen from the following courses:</i>		
FAM 112	The World of Opera	3
FAM 123	World Music	3
FAM 124	America's Music	3
FAM 212	Canisius and the BPO Experience	3
FAM 213	Women in Music	3
FAM 214	Music in Film	4
FAM 216	Medieval and Renaissance Music	3
FAM 217	Music of the Baroque Period	3
FAM 218	Music of the Classical Period	3
FAM 219	19th Century Music	3
FAM 220	Art Music from 1900 to the Present	3
FAM 221	Opera Workshop	3
FAM 222	Opera Workshop II	3
FAM 224	Afro-Centric Music	3
FAM 250	Music for Children	3

FAM 255	Diction for Singers	3
FAM 350	Basic Conducting	3
FAM 360	Music Business I	3
FAM 361	Music Business II	3
FAM 498	Internship	3
DMA 309	Music Technology	3
DMA 310	Digital Audio/Music Production	3
HON 323	Opera	3
HON 324	Symphony	3

Recommended Semester Schedule for Major Course Requirements:

Year	Fall Semester	Spring Semester
Freshman	FAM 119 (3 credits)	FAM 240/240L (4 credits)
	FAM 230/230L (4 credits)	Music History Course
	FAM 225 (2 credits)	FAM 225 (2 credits)
	Music Ensemble	Music Ensemble
Sophomore	FAM 330/330L (4 credits)	FAM 340/340L (4 credits)
	FAM 210 (3 credits)	Music Sequence Course
	FAM 225 (2 credits)	FAM 225 (2 credits)
	Music Ensemble	Music Ensemble
Junior	Music Sequence Course	Music Sequence Course
	Music Ensemble	Music Ensemble
Senior	FAM 450 (3 credits)	Music Ensemble
	Music Ensemble	

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)

<i>Two of the following courses:</i>		
Course	Title	Credits
FAM 123	World Musics	3
FAM 124	America's Music	3
FAM 212	Canisius and the BPO Experience	3
FAM 213	Women in Music	3
FAM 214	Music in Film	3
FAM 216	Medieval and Renaissance Music	3
FAM 217	Music of the Baroque Period	3
FAM 218	Music of the Classical Period	3
FAM 219	19th Century Music	3
FAM 220	Art Music from 1900 to the Present	3
FAM 224	Afro-Centric Music	3

Total of six credits consisting of any combination of FAM courses, music ensembles, music lessons, DMA 309 Music Technology (3 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:

Course		Credits
FAM 119	Masterpieces of Music	3
FAM 210	Keyboard Musicianship	3
FAM 230/230L	Music Theory I and Lab	4
FAM 240/240L	Music Theory II and Lab	4
FAM 330/330L	Music Theory III and Lab	4
FAM 340/340L	Music Theory IV and Lab	4
FAM 450	Senior Seminar	3
FAM 255	Music Performance: eight semesters	16
FAM Music History Course (choose one of the following)		
FAM 216	Medieval and Renaissance Music	3
FAM 217	Music of the Baroque Period	3
FAM 218	Music of the Classical Period	3
FAM 219	19th Century Music	3
FAM 220	Art Music from 1900 to the Present	3

Music Ensemble:

Majors must take the same ensemble for all eight semesters. A student may take a music ensemble for one (1) credit:

Course	Title	Credits
FAM 181	Chorale	1
FAM 182	Jazz Ensemble	1
FAM 184	Chamber Orchestra	1
FAM 185	Concert Band	1
<i>or for zero (0) credit:</i>		
FAM 171	Chorale	0
FAM 172	Jazz Ensemble	0
FAM 174	Chamber Orchestra	0
FAM 175	Concert Band	0

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):

Course	Title	Credits
FAM 112	The World of Opera	3
FAM 123	World Musics (3 credits)	3
FAM 124	America's Music	3
FAM 212	Canisius and the BPO Experience	3
FAM 213	Women in Music	3
FAM 214	Music in Film	3
FAM 216	Medieval and Renaissance Music	3
FAM 217	Music of the Baroque Period	3
FAM 218	Music of the Classical Period	3
FAM 219	19th Century Music	3
FAM 220	Art Music from 1900 to the Present	3
FAM 221	Opera Workshop	3
FAM 222	Opera Workshop II	3
FAM 224	Afro-Centric Music	3
FAM 250	Music for Children	3
FAM 255	Diction for Singers	3

FAM 350	Basic Conducting	3
FAM 360	Music Business I	3
FAM 361	Music Business II	3
FAM 498	Internship	3
FAM 499	Independent Study in Music	3
DMA 309	Music Technology	3
DMA 310	Digital Audio/Music Production	3
HON 323	Opera	3
HON 324	Symphony	3

Major Experiences:

Students in Music Performance present two recitals to complete the requirements for the degree: a junior year recital (25-30 minutes of music) and a senior recital (50-60 minutes with intermission).

Additional Course Considerations

Recommended Semester Schedule for Major Course Requirements:

Year	Fall Semester	Spring Semester
Freshman	FAM 119 (3 credits)	FAM 240/240L (4 credits)
	FAM 230/230L (4 credits)	Music History Course
	FAM 225 (2 credits)	FAM 225 (2 credits)
	Music Ensemble	Music Ensemble
Sophomore	FAM 330/330L (4 credits)	FAM 340/340L (4 credits)
	FAM 210 (3 credits)	FAM 225 (2 credits)
	FAM 225 (2 credits)	Music Ensemble
	Music Ensemble	

Junior	Music Elective	FAM 225 (2 credits)
	FAM 225 (2 credits)	Music Ensemble
	Music Ensemble	
Senior	FAM 225 (2 credits)	FAM 225 (2 credits)
	FAM 450 (3 credits)	Music Ensemble
	Music Ensemble	

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 – MUSIC BUSINESS

Director: Jane Cary

Introduction:

The music major with a Music Business Concentration is an interdisciplinary opportunity for students to combine their passion for music with the marketing and business components of the music industry, all within the liberal arts tradition of the college. The concentration is a joint collaboration between the College of Arts and Sciences and the Wehle School of Business, combining the Bachelor of Arts Degree Music Major and the Business Minor with the addition of select music business courses and a music business internship.

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:

Course	Title	Credits
FAM 119	Masterpieces of Music	3
FAM 210	Keyboard Musicianship	3
FAM 230/230L	Music Theory I and Lab	4
FAM 240/240L	Music Theory II and Lab	4
FAM 330/330L	Music Theory III and Lab	4
FAM 340/340L	Music Theory IV and Lab	4
FAM 360	Music Business I	3
FAM 361	Music Business II	3
FAM 450	Senior Seminar	3
FAM 498	Internship	
FAM 255	Music Performance: four semesters	8
FAM Music History Course (choose one of the following):		
FAM 216	Medieval and Renaissance Music	3
FAM 217	Music of the Baroque Period	3
FAM 218	Music of the Classical Period	3
FAM 219	19th Century Music	3
FAM 220	Art Music from 1900 to the Present	3
DMA Course (choose one of the following):		
DMA 309	Music Technology	3
DMA 310	Digital Audio/Music Production	3

Music Ensemble:

Majors must take the same ensemble for all eight semesters. A student may take a music ensemble for one (1) credit:

Course	Title	Credits
FAM 181	Chorale	1
FAM 182	Jazz Ensemble	1
FAM 184	Chamber Orchestra	1
FAM 185	Concert Band	1
<i>or for zero (0) credit:</i>		
FAM 171	Chorale	0
FAM 172	Jazz Ensemble	0
FAM 174	Chamber Orchestra	0
FAM 175	Concert Band	0

Students may opt for zero credit to avoid exceeding 18 credits in a semester. (0 - 8 credits)

Business Courses:

Course	Title	Credits
ECO 101	Principles of Macroeconomics	3
ACC 201	Financial Accounting	3
ECO 255	Business Stats I	3
MGT 101	Introduction to Management	3
MKT 201	Principles of Marketing	3
FIN 201	Business Finance	3

Business Elective (choose one of the following):

Course	Title	Credits
ECO 102	Principles of Microeconomics	3
MGT 360	Organizational Behavior	3
MGT 364	Human Resources Management	3
MKT 320	Consumer Behavior	3
MKT 351	Sales Management	3
MKT 352	Professional Sales	3

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:

Year	Fall Semester	Spring Semester
Freshman	FAM 230/230L (4 credits)	FAM 119 (3 credits)
	FAM 225 (2 credits)	FAM 240/240L (4 credits)
	Music Ensemble	FAM 225 (2 credits)
	ECO 101 (3 credits)	Music Ensemble
		MGT 101 (3 credits)
Sophomore	FAM 330/330L (4 credits)	FAM 340/340L (4 credits)
	FAM 210 (3 credits)	Music History Course
	FAM 225 (2 credits)	FAM 225 (2 credits)
	Music Ensemble	Music Ensemble
	ACC 201 (3 credits)	MKT 201 (3 credits)
Junior	FAM 360 (3 credits)	FAM 361 (3 credits)
	Music Ensemble	Music Ensemble
	ECO 225 (3 credits)	DMA 309 or 310 (3 credits) (see note below)
		FIN 201 (3 credits)
Senior	FAM 450 (3 credits)	FAM 498 (3 credits)
	Music Ensemble	Music Ensemble
	Business Elective	

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 "0" 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 "0" 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 "0" credit)

<p>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 "O" credit.)</p>	<p>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).</p>	<p>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)</p>	<p>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)</p>	<p>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.)</p>	<p>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.</p>	<p>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)</p>	<p>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)</p>	<p>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)</p>	<p>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)</p>	<p>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)</p>	<p>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)</p>	<p>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)</p>	<p>FAM 220 Art Music from 1900 to the Present 3 credits Impressionism in music which ushers in the twentieth century. European music 1910-1945. American music. New music since 1945. (Field 3)</p>	<p>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)</p>
---	---	--	---	--	--	---	--	--	--	--	---	---	---	--

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, serialism, minimalism and electronic applications. Study of selected works by Debussy, Ravel, Stravinsky, Schoenberg, Messiaen, Boulez, Glass and Varese. Prerequisite: FAM 330. Theory IV Lab required. *Spring*

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

Director: 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

Course	Title	Credits
FAS 110	Two-Dimensional Design	3
FAS 120	Drawing I	3
FAS 130	Three-Dimensional Design	3
FAS 131	Sculpture I	3
FAS 140	Introduction to Still Photography	3
FAS 141	Digital Photography	3
FAS 142	Travel Photography	3
FAS 150	Color	3
FAS 160	Printmaking I	3
FAS 161	Experimental Printmaking Techniques	3
FAS 162	Monotype Techniques	3
FAS 170	Painting I	3
FAS 220	Drawing II	3
FAS 222	Figure Drawing I	3
FAS 250	Studio Art Capstone	3
FAS 260	Printmaking II	3
FAS 270	Painting II	3
FAS 271	Landscape Painting	3
FAS 499	Independent Study in Studio Art	3

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.

FINE ARTS – DANCE

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.

Major Courses

Course	Title	Credits
ATH 170	Emergency Care	3
ATH 398	Statistics and Research Design	3
BIO 114/L	Human Biology: An Introduction to Anatomy and Physiology	4
BIO 115/L	Musculoskeletal Anatomy and Physiology	4
HED 115	Basic Nutrition	3
HED 205	Wellness and Fitness	3
HED 220	Healthy Behaviors	3
HED 337	Exercise Principles	3

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

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.

Recommended Semester Schedule for Major Course Requirements

Year	Fall Semester	Spring Semester
Freshman	ATH 170 (3 credits)	BIO 115 and Lab (4 credits)
	BIO 114 and Lab (4 credits)	ENG 101 (3 credits)
	FYS 101 (3 credits)	HED 115 (3 credits)
	Field 3 or 4 (3 credits)	Field 3 or 4 (3 credits)
	Elective (3 credits)	Elective (3 credits)
Sophomore	HED 220 (3 credits)	HED 205 (3 credits)
	KIN 235 (3 credits)	HED 425 (3 credits)
	PSY 101 (3 credits)	PHI 101 (3 credits)
	RST 101 (3 credits)	PSY 102 (3 credits)
	Elective (3 credits)	Elective (3 credits)
Junior	KIN 336/L (4 credits)	ATH 398 (3 credits)
	Field 1 or 2 (3 credits)	HED 337 (3 credits)
	Attribute (3 credits)	HED 361 (3 credits)
	Attribute (3 credits)	Field 1 or 2 (3 credits)
	Elective (3 credits)	Elective (3 credits)
Senior	KIN 350 (3 credits)	KIN 498 (3 credits)
		Core Capstone (3 credits)
	Elective (3 credits)	Elective (3 credits)
	Elective (3 credits)	Elective (3 credits)
	Elective (3 credits)	

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:

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

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 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*

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*

HISTORY

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.

History Courses: 2013-2015

CLG 208 Greek Historians: Sources for Athenian History

3 credits

Selected Greek historical authors, genres, or themes. (Field 4)
Fall/Spring

CLG 308 Readings in Greek History: Sources for Athenian History

3 credits

Selected Greek historical authors, genres, or themes. (Field 4)
Fall/Spring

CLS 103 Greek History

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

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 300 Roman Law and Society

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

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

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 311 Alexander the Great

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

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*

HIS 106 The Medieval World

3 credits

The development of a distinctive European civilization between 500 and 1500. Emphasis on Europe's contacts and conflicts with the "competing" cultures of Byzantium and Islam. (Field 4, Global attribute) *Spring and/or Fall*

HIS 107 History of Modern Europe to 1815

3 credits

The major political, economic, social and intellectual currents in Western Civilization from 1500 to 1815. (Field 4, Global attribute) *Fall and/or Spring*

HIS 108 History of Modern Europe since 1815

3 credits

The major political, economic, social and intellectual currents in Western Civilization from 1815 to the present. (Field 4 Global attribute) *Spring and/or Fall*

HIS 109 History of Asia to 1800

3 credits

Comparative study of civilizations, cultures, religions and institutions of the Far East, and South Asia. (Field 4, Global attribute) *Fall*

HIS 110 History of Asia since 1800

3 credits

The various independence and revolutionary movements and their evolution into the modern nation-states of Asia. (Field 4, Global attribute) *Spring and/or Fall*

HIS 123 History of the United States: The Colonial Period to Reconstruction

3 credits

Introduction to major themes of American history through the Civil War including: the Columbian Exchange and colonization, American Revolution, paradox of freedom and slavery, emergence of a market economy, secession and Reconstruction (Field 4, Diversity attribute) *Fall and/or Spring*

HIS 124 History of the United States: 1877 to the Present 3 credits

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 3 credits

This course introduces the major events, figures and themes of American history from 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 3 credits

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 3 credits

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 3 credits

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 3 credits

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 3 credits

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 3 credits

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 3 credits

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 3 credits

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 3 credits

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 3 credits

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, and sexuality affected women's public and private lives. Special attention is paid to the themes of work, politics, citizenship and domestic life. (Field 4, Diversity attribute)

HIS 242 The Family in American History 3 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 Reformation 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

History of Mexico since the Mexican Revolution. Society, petroleum, and one-party rule until 2000. Mexico in the twenty-first Century.

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

Origins of the Cuban Revolution. Fidel Castro and the insurrection. Confrontations with the United States: Bay of Pigs and Missile Crisis. The construction of a socialist economy and a new society. Cuba in the Twenty-First Century

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

U.S. occupations in the Caribbean and Central America. The Mexican Revolution. The CIA operations in Guatemala and Cuba. The Cold War in Latin America. The Nicaraguan Revolution and turmoil in Mexico.

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.
Top of Form

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

HUMANITIES

The Humanities major includes those branches of learning that are concerned with human thought and experience in history, language and literature, philosophy, religious studies, fine arts and music. Its goal is to lead the student to appreciate those aspects of his or her own culture, as well as their relationship to the cultures of other times and places. Although the humanities major is not oriented toward a particular career, its emphasis on critical understanding and disciplined reflection prepares a student for later training in many fields of employment including law, government, journalism, teaching and human services.

Humanities Curriculum

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>

2. Major course requirements (19 courses)

English: two 200 level courses plus two 300 - 400 level courses in a major literary genre
History: two 300/400-level courses
Philosophy: four 200/400-level courses
Religious Studies: two 300/400-level courses
Modern Language: two courses in Modern Language or Literature in Translation and/or Civilization
Humanities: two courses to be selected from Fine Arts, History, Music, Religious Studies, Philosophy 300 level
Concentration: Three additional 300/400-level courses in one of the following departments: Fine Arts, English, History, Modern Language, Religious Studies, Philosophy

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>

2. Course requirements (6 courses)

Humanities Track: (6 courses)
English: two 200 level courses
Religious Studies: two courses
Humanities: two courses, to be selected from Fine Arts, English, History, Modern Language, Music, Religious Studies, or Philosophy 300 level
Business Track:
Art and Literature: two courses
Religious Studies: two courses
Business Electives: two courses

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.

INTERNATIONAL BUSINESS PROGRAMS

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

Course	title	Credits
IBUS 301	Fundamentals of International Business	3
FIN 460 or ECO 460	International Finance International Trade	3 3
MGT 472	Comparative Management Systems	3
MKT 475	International Marketing	3

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.

Common body of business knowledge:	
MAT 105 and MAT 106 or MAT 115	Linear Algebra Calculus for the Non-Sciences Calculus for Business I
ACC 201	Financial Accounting
ACC 202	Managerial Accounting
ECO 101	Principles of Macroeconomics
ECO 102	Principles of Microeconomics
ECO 255	Business Statistics I
ECO 256	Business Statistics II
FIN 201	Introduction to Finance
ISB 101	Management Technology
MGT 101	Introduction to Management

MGT 325	Operations Analysis
MGT 370	Managerial Environment
MGT 446	Managerial Policy Strategy
MKT 201	Principles of Marketing
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 International Trade
International Business Electives (3 courses)	
Electives (2 or 3 courses)	
Restricted Electives (must be liberal arts) 4 courses	

Recommended Schedule:

Year	Fall	Spring
Freshman	FYS 101	ENG 101
	MAT 105 or MAT 115 or MAT 111	MAT 106 or free elective if Mat. 111 115/111
	RST 101	PHI 101
	ECO 101 MACRO (Social Sciences Field)	ECO 102 MICRO
	Modern Language 215	Modern Language 216
Sophomore	MKT 201	FIN 201
	ACC 201	ACC 202
	Field of Knowledge	Field of Knowledge
	ECO 255 STATS 1 (Mathematics Field)	ECO 256 STATS 2
	ISB 101	MGT 101

Junior	IBUS 301	MGT 472
	MGT 325	MKT 475
	Fin 460 or ECO 460	IBUS ELECTIVE
	Field of Knowledge	Field of Knowledge
	Field of Knowledge	Core Capstone
Senior	MGT 370	MGT 446
	IBUS Elective	IBUS Elective
	Free Elective	Free Elective
	A&S Elective	A&S Elective
	A&S Elective	A&S Elective

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:

Course	Title	Credits
ECO 460	International Trade	3
ENT 312	International Entrepreneurship	3
MGT 380	International Business Seminar	3
MGT 440	Global Supply Chain Management	3
MGT 474	(MKT 474) Doing Business in Canada	3
MGT 475	Doing Business in Latin America	3
MGT 476	Doing Business in Mexico	3
MGT 477	Transnational Management in Gateway Regions	3
MGT 480	International Law in Business Transactions	3
MKT 478	Global Logistics	3

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

Course	Title	Credits
Choose one of the three regional history course groupings		6
Group 1		
HIS 107	History of Modern Europe to 1815	3
HIS 108	History of Modern Europe since 1815	3
Group 2		
HIS 109	History of Asia to 1800	3
HIS 110	History of Asia since 1800	3
Group 3		
HIS 131	Latin American History to 1800	3
HIS 132	Latin American History since 1800	3
ECO 101	Principles of Macroeconomics	3
PSC 140	Introduction to International Relations	3
PSC 150	Introduction to Comparative Politics and Government	3
HIS 300	Historical Geography	3
HIS 399 or PSC 245	History of U.S. Foreign Relations American Foreign Policy	3
PSC 442	Seminar in International Relations	3
Business: one 300 or 400-level international business course		3

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

Course	Title	Credits
ECO 460	International Trade	3
ENT 312	International Entrepreneurship	3
FIN 460	International Finance	3
HIS 213	Twentieth-Century Europe	3
HIS 230	Holocaust in Historical Perspective	3
HIS 260	Canada and the World	3
HIS 263	Wars of Latin America	3
HIS 280	The Making of Modern Africa	3
HIS 309	World War I	3
HIS 335	Britain in the Era of Total War	3
HIS 336	Modern Mexico	3
HIS 337	History of Globalization	3
HIS 338	Britain's Empire	3
HIS 339	Nazi Germany, World War II, and the Holocaust	3
HIS 341	Europe: Decade of War 1936-48	3
HIS 342	Global History of the Cold War	3
HIS 345	20th-Century Russia	3
HIS 346	Age of European Fascism, 1919-45	3

HIS 347	History of Marxism	3
HIS 348	Twentieth-Century Marxism	3
HIS 350	20th-Century Eastern Europe	3
HIS 352	The Cuban Revolution	3
HIS 356	Twentieth-Century China	3
HIS 359	History of Modern Japan 1868 to the Present	3
HIS 365	U.S.-Latin American Relations since 1898	3
HIS 380	America and the Cold War	3
HIS 394	Contemporary Middle East	3
HIS 399	History of US Foreign Relations	3
HIS 440	Genocide and Human Rights in the Twentieth Century	3
HON 220	War and Society in Modern Europe	3
HON 223	Revolutions in Latin America	3
HON 225	Empires and Their Aftermath	3
HON 231	War and Peace After 9/11	3
HON 247	Islam: Religion, History and Culture	3
IBUS 301	Fundamentals of International Business	3
MGT 380	International Business Seminar	3
MGT 440	Global Supply-Chain Management	3
MGT 472	Comparative Management Systems	3
MGT 475	Doing Business in Latin America	3
MGT 476	Doing Business in Mexico	3
MGT 477	Transitional Management in Gateway Regions	3
MKT 474	Doing Business in Canada	3
MKT 475	International Marketing	3
MKT 478	Global Logistics and Transportation	3
PHI 262	Philosophy of International Law	3
PSC 241	Human Rights and Globalization	3
PSC 242	International Organizations	3
PSC 244	War: Causes and Consequences	3
PSC 245	American Foreign Policy	3
PSC 250	Politics in Latin America	3

PSC 343	Aid and Development	3
PSC 345	Transnational Crime after 9/11	3
PSC 346	National Security Council	3
PSC 355	European Union	3
PSC 360	Political Economy of the Developing World	3
PSC 370	Domestic Conflicts and Peace	3
PSC 445	Seminar in European Politics	3

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 Químic 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

Year	Fall Semester	Spring Semester
Freshman	PSC 140	PSC 150
	HIS 107 or HIS 109 or HIS 131	HIS 108 or HIS 110 or HIS 132
	Modern Language at appropriate level	Modern Language at appropriate level
	ECO 101	
Sophomore	PHI 101	IR Major Elective
	Modern Language 300-level	IR Major Elective
	HIS 399 or PSC 245	
	IR Major Elective	
Junior	HIS 300	IR Major Elective
	IR Major Elective	IR Major Elective or 300-400 level Business
	IR Major Elective or 300-400 level Business	

Dual Majors

Double majors have been developed between the International Relations Program and the Departments of History, Modern Languages, and Political Science as well as with the programs in European Studies and International Business. It is also possible to pursue a double major with other academic programs such as Communication Studies, Criminal Justice, Economics, 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

Course	Title	Credits
	Choose one of the three regional history course groupings	6
Group 1		
HIS 107	History of Modern Europe to 1815	3
HIS 108	History of Modern Europe since 1815	3
Group 2		
HIS 109	History of Asia to 1800	3
HIS 110	History of Asia since 1800	3
Group 3		
HIS 131	Latin American History to 1830	3
HIS 132	Latin American History since 1830	3
ECO 101	Principles of Macroeconomics	3
PSC 140	Introduction to International Relations	3
PSC 150	Introduction to Comparative Politics and Government	3
HIS 300	Historical Geography	3

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 (In Spanish)	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

Course	Title	Credits
Nine journalism courses are required:		
JRN 200	Multimedia Storytelling I	3
JRN 201	Multimedia Storytelling II	3
COM 203	Writing for the Public Media (Writing Intensive Attribute)	3
JRN 301	News Gathering/Reporting I	3
JRN 302	News Gathering/Reporting II	3
JRN 310	Journalism I	3
JRN 311	Journalism II	3
COM 351	Media Ethics (Ethics Attribute)	3
JRN 490	Capstone	3
Major Electives		
Five elective courses from those below:		
JRN 302	News Gathering/Reporting II	3
JRN 322	Feature/Magazine Writing	3
JRN 336	Sports Journalism	3
JRN 342	Narrative Journalism	3
JRN 363	Journalistic Editing	3
JRN 369	Television Features	3
JRN 380	Special Topics in Journalism	3
JRN 450	Entrepreneurial Journalism	3
JRN 491/492/493/494	Video Institute I, II, III, IV	3
COM 205	Mass Communication and Society (Field 5- Social Sciences)	3
COM 325	Media Literacy	3
COM 361	Introduction to Television Production	3

DMA 204	Digital Media Law	3
DMA 205	Digital Graphics	3
DMA 206	Interactive Multimedia	3
DMA 340	Writing for Digital Media	3
DMA 342	Introduction to Web Design	3
DMA 363	Print Design	3
DMA 370	Designing for Mobile Devices	3
DMA 442	Advanced Web Design	3
FAS 141	Digital Photography	3

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

Year	Fall Semester	Spring Semester
Freshman	JRN 200 (3)	COM 203-A* (3)
		JRN 201 (3)
Sophomore	JRN 301 (3)	JRN 302 (3)
	Elective	Elective
Junior	JRN 310** (3)	COM 351 (3)
	JRN 311** (3)	Elective
Senior	Elective	JRN 490 (3)

*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 journalism requirements, prerequisites and electives.

Journalism students who are dual majors and successfully complete 3 or more credit hours in Independent Study or Internships (JRN 488, JRN 498 or JRN 499) are required to complete 33 hours of in-class credit in order to complete the journalism major.

Minors

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

Note: To gain valuable experience, journalism majors are advised to participate in clubs such as the student newspaper, television station, radio station, and digital media arts clubs.

Journalism Courses: 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:

Course	Title
HIS 131	Latin American History to 1800
HIS 132	Latin American History since 1800
PSC 150	Introduction to Comparative Politics and Government
PSC 250	Politics in Latin America

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.

MANAGEMENT

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)

Course	Title	Credits
Common body of business knowledge:		
MAT 105 and MAT 106 or MAT 111 or MAT 115	Finite Mathematics Calculus for the Non-Sciences Calculus I Calculus for Business I	3 3 4 4
Free Elective		
ACC 201	Financial Accounting	3
ACC 202	Managerial Accounting	3
ECO 101	Principles of Macroeconomics	3
ECO 102	Principles of Microeconomics	3
ECO 225	Business Statistics I	3
ECO 256	Business Statistics II	3
FIN 201	Introduction to Finance	3
ISB 101	Management Technology	3
MGT 101	Introduction to Management	3
MGT 370	Managerial Environment	3
MGT 446	Managerial Policy/Strategy	3
MKT 201	Principles of Marketing	3
Management major:		
MGT 335	Management Science	3
MGT 336	Production/Operations Management	3
MGT 360	Organizational Behavior	3
MGT 364	Human Resources Management	3

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

Year	Fall Semester	Spring Semester
Freshman	FYS 101 (3 credits)	ENG 101 (3 credits)
	MAT 105 (3 credits) or MAT 111 (4 credits) or MAT 115 (4 credits)	MAT 106 (3 credits) or Free Elective if MAT 115/111
	RST 101 (3 credits)	PHI 101 (3 credits)
	ECO 101 (3 credits) (Field of Knowledge Social Science)	ECO 102 MICRO (3 credits)
	ISB 101 (3 credits)	MGT 101 (3 credits)

Sophomore	MKT 201 (3 credits)	FIN 201 (3 credits)
	ACC 201 (3 credits)	ACC 202 (3 credits)
	Field of Knowledge	Field of Knowledge
	ECO 255 (3 credits) (Field of Knowledge Math)	ECO 256 STATS 2 (3 credits)
	Business International Requirements (Two semester sequence required) ¹	Business International Requirements (Two semester sequences required)
Junior	MGT 335 (3 credits)	MGT Elective
	MGT 336 (3 credits)	MGT 364 Human Resources (3 credits) (<i>Spring Only</i>)
	MGT 360 (3 credits) (<i>Fall only</i>)	Arts and Sciences Elective
	Field of Knowledge	Field of Knowledge
	Field of Knowledge (PHI, Ethics attribute)	Arts and Sciences Elective
Senior	MGT 370 (3 credits)	MGT 446 (3 credits)
	MGT Elective	MGT Elective
	Free Elective	Free Elective
	Arts and Sciences Elective	Arts and Sciences Elective
	Core Capstone	Free Elective

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:

Global Logistics and Supply Chain Management. Human Resource Management, International Management, Management of Technology

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.

Course	Title	Credits
Required Courses – Complete the following courses:		
MKT 201	Principles of Marketing	3
MGT 336 or MGT 325	Production/Operations Management (Management Majors)	3
	Operations Analysis for Business (Non-management Majors)	3
MGT 440 or MKT 478	Global Supply Chain Management	3
	Global Logistics/Transportation (Students completing both MGT 440 and MKT 478 may count one of those courses as an elective.)	3
Minor Elective Courses – Complete two of the following:		
MGT 334	Strategic Sourcing	3
MGT 430	Sustainability and Supply Chains	3
MGT 440 or MKT 478	Global Supply Chain Management	3
	Global Logistics/Transportation (Students completing both MGT 440 and MKT 478 may count one of those courses as an elective.)	3
MGT 474/ MKT 474	Doing Business in Canada	3
MGT 475	Doing Business in Latin America	3
MGT 476	Doing Business in Mexico	3
MGT 479	Current Topics in Global Logistics and Supply Chain Management	3

MGT 492	Internship in Global Logistics and Supply Chain Management	3
ACC 307	Management Accounting Information Systems	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.

Course	Title	Credits
Required Courses – Complete the following three courses:		
MGT 360	Organizational Behavior (Fall only)	3
MGT 364	Human Resource Management (Spring only)	3
ENT 411	Entrepreneurial and Management Leadership Skills (Fall only)	3
Minor Elective Courses – Complete three of the following (at least one in COM and one in PSY):		
COM 204	Interpersonal Communication	3
COM 302	Small Group Communication (Fall only)	3
COM 318	Organizational Communication (Fall only)	
COM 319	Training and Development (Spring only)	3
MGT 307	U.S. Business History (not offered every academic year)	3

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.

Course	Title	Credits
Required Courses – Complete the following two courses:		
IBUS 301	Fundamentals of International Business	3
MGT 472	Comparative Management Systems	3
Minor Elective Courses – Complete three of the following:		
ECO 460	International Trade	3
ENT 312	International Entrepreneurship	3
FIN 460	International Finance	3
IBUS 495	Internship in International Management	3
MGT 438	Entry Strategies for Emerging Markets	3

MGT 440	Global Supply Chain Management	3
MGT 475	Doing Business in Latin America	3
MGT 476	Doing Business in Mexico	3
MKT 478	Global Logistics	3

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.

Course	Title	Credits
Required Courses – Complete the following three courses:		
MKT 101	Introduction to Management	3
ECO 255	Business Statistics I (or equivalent)	3
MGT 336 or MGT 325	Production/Operations Management (Management Majors) Operations Analysis for Business (Non-management Majors)	3 3
Elective Courses – Complete three of the following:		
MGT 434	Technology Management	3
MGT 436	Quality Management	3
MGT 437	Project Management	3
MGT 439	Operations Planning and Control	3
MGT 440	Global Supply Chain Management	3
MGT 494	Internship in Technology/ Operations Management	3

MGT 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 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:

Course	Title	Credits
Required Courses - Complete the following courses:		
MGT 101	Introduction to Management	3
MKT 201	Principles of Marketing	3
MGT 325	Operations Analysis for Business (has ECO 255 Business Statistics I prerequisite)	3
PHI 242 or MGT 370 (with permission of instructor)	Ethical Issues in Business Managerial Environment	3 3

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.

Course	Title	Credits
ENT 311	Entrepreneurship and Family Business <i>(Fall only)</i>	3
ENT 401	Small Business Management and Entrepreneurship <i>(Fall only)</i>	3
ENT 402	New Venture Creation <i>(Spring only)</i>	3
ENT 411	Entrepreneurial and Managerial Leadership Skills Development <i>(Fall only)</i>	3
ENT 414	Franchising and Entrepreneurship	3
ISB 302	Sustainability and System Dynamics	3
MKT 351	Sales Management	3
MKT 471	Doing Business in Emerging Markets	3
MKT 472	Doing Business in Asia	3
MKT 474	Doing Business in Canada	3
MKT 478	Global Logistics	3

MARKETING

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)

Course	Title	Credits
A. Common body of business knowledge		
MAT 105 and MAT 106 or MAT 111 or MAT 115 and Free Elective	Finite Mathematics Calculus for the Non-Sciences Calculus I Calculus for Business I	3 3 4 4
ACC 201	Financial Accounting	3
ACC 202	Managerial Accounting	3
ECO 101	Principles of Microeconomics	3
ECO 102	Principles of Macroeconomics	3
ECO 255	Business Statistics I	3
ECO 256	Business Statistics II	3
FIN 201	Introduction to Finance	3
ISB 101	Management Technology	3
MGT 101	Introduction to Management	3
MGT 325	Operations Analysis	3
MGT 370	Managerial Environment	3
MGT 446	Managerial Policy Strategy	3
MKT 201	Principles of Marketing	3
B. Marketing major:		
MKT 320	Consumer Behavior	3
MKT 331	Fundamentals of Marketing Research	3
MKT 401	Cases in Marketing Management	3
MKT 375	International Marketing	3

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 extra-curricular 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

Year	Fall Semester	Spring Semester
Freshman	FYS 101 (3 credits)	ENG 101 (3 credits)
	MAT 105 (3 credits) or MAT 115 (4 credits) or MAT 111 (4 credits)	MAT 106 (3 credits) or free elective if MAT 115/111
	RST 101 (3 credits)	PHI 101 (3 credits)
	ECO 101 MACRO (3 credits)	ECO 102 MICRO (3 credits)
	ISB 101 (3 credits)	MGT 101 (3 credits)
	Sophomore	MKT 201 (3 credits)
ACC 201 (3 credits)		ACC 202 (3 credits)
History Field 4		Arts Field 3
ECO 255 (3 credits)		ECO 256 (3 credits)
Business International Requirement		Business International Requirement (2 semester sequence required)
(Two semesters of language or approved regional studies)*		
Junior	MKT 320 (3 credits)	MKT 331 (3 credits)
	MGT 325 (3 credits)	MKT 375 (3 credits)
	Religious Studies Field 1	MGT 370 (3 credits)
	Science Field 6	Philosophy Field 2 (Ethics required)
	A and S Elective	A and S Elective

Senior	MKT 401 (3 credits)	MGT 446 (3 credits)
	MKT Elective	MKT Elective
	A and S Elective	Free Elective
	Core Capstone	Free Elective
	A and S Elective	Free Elective

* 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

Year	Fall Semester	Spring Semester
Freshman	FYS 101 Freshman Year Seminar	ENG 101 English Seminar I
	MAT 105 or MAT 115 or MAT 111	MAT 106 or Arts and Science Elective if MAT 115/111
	RST 101 Intro to Religious Studies	PHI 101 Intro to Philosophy
	ECO 101 Principles of Macroeconomic (field 5)	ECO 102 Principles of Microeconomics
	ISB 101 Management Technology	MGT 101 Introduction to Management

Sophomore	MKT 201 Principles of Marketing	FIN 201 Introduction to Finance
	ACC 201 Financial Accounting	ACC 202 Managerial Accounting
	ISB 205 Management Software (ISB 101)	ISB 211 Visual Programming for Business***
	ECO 255 Business Statistics I	ECO 256 Business Statistics II
	Business International Requirement (Language or Approved Regional Studies)	Business International Requirement (Language or Approved Regional Studies)
		Summer Session, A & S elective
	Junior	MKT 320 Consumer Behavior
MGT 325 Operations Analysis		MKT 375 International Marketing
ISB 340 Data Management		History Field of Knowledge 4
Natural Science Field of Knowledge 6		Philosophy Field of Knowledge 2, Ethics**
Religious Studies Field of Knowledge 1		ISB 455 ECommerce (ISB 340)
		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
	MKT/ISB Elective	CORE CAPSTONE
	ISB 350 Networking (ISB 205)	A&S Elective

Attributes	Can be fulfilled using a variety of courses including Field of Knowledge courses and electives with attribute designation
Justice	A&S course or ISB 302
Ethics	Field of Knowledge 2 suggested
Diversity	
Global Awareness	MKT 375 will satisfy this requirement.
Advanced Writing Intensive	Must be at the 200-level or above
Oral Communication Skills	

Ethics required of all students; * Dual majors are encouraged to take ISB 205 first.

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.

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. *Fall*

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, ingame 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 is 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.

INFORMATION SYSTEMS

Chair: Edward J. Garrity, PhD

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:

Course	Title	Credits
ISB 205	Management Software	3
ISB 211	Visual Programming for Business	3
ISB 340	Data Management	3
ISB 350	Networking	3
ISB 455	ECommerce	3
ISB 475	Systems Analysis and Design	3
Major Electives		
ISB 302	Sustainability & System Dynamics	3
ISB 460	Computer Forensics	3
ISB 470	Cyber Security	3
ISB 471	Information Systems Topics	3
ISB 480	IT Project Management	3

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

Year	Fall Semester	Spring Semester
Freshman	FYS 101 (3)	ENG 101 (3)
	MAT 105 (3) or MAT 111 (4) or MAT 115 (4)	MAT 106 (3) or Free Elective if MAT 111 or MAT 115 taken
	RST 101 (3) or ISB 101 (3)	ECO 102 (3)
	ECO 101 Macro (3) (Social Sciences field)	ISB 101 (3) or RST 101 (3)
	Business International Requirement ¹	Business International Requirement ²
Sophomore	ISB 205 (3)	ISB 211 (3)
	ACC 201 (3)	ACC 202 (3)
	ECO 255 Stats 1 (3)	ECO 256 Stats 2(3)
	Field of Knowledge	MGT 101 (3)
	PHI 101 (3)	Field of Knowledge
Junior	ISB 340 (3)	ISB Elective
	FIN 201 (3)	A and S Elective
	MKT 201 (3)	MGT 325 (3)
	Field of Knowledge	A and S Elective
	Field of Knowledge	MGT 370

Senior	ISB 350 (3)	MGT 446 (3)
	Field of Knowledge	ISB Elective
	A and S Elective	ISB 475 (3) (Systems Capstone)
	A and S Elective	Free Elective
	Core Capstone	ISB 455 (3)

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.

Course	Title
<i>The IS Minor consists of five courses as follows:</i>	
Two Required Courses:	
ISB 205 or ISB 211 and ISB 340	Management Software Visual Programming for Business Data Management
Select 3 of the following:	
ISB 302	Sustainability & System Dynamics
ISB 350	Networking
ISB 455	ECommerce
ISB 460	Computer Forensics
ISB 470	Cyber Security
ISB 480	IT Project Management
The Inter-Disciplinary Minor in Computer Forensics consists of six courses:	
Required courses:	
CRJ 227	Criminal Justice I
CRJ 228	Criminal Justice II
ISB 350	Networking
ISB 460	Computer Forensics
ISB 470	Cyber Security
An ethics course:	
MGT 370 or CRJ 482	Managerial Environment Criminal Justice Ethics (SOC 482)

Information System Courses: 2013 - 2015

ISB 101 Management Technology **3 credits**

Introduction to information systems, hardware and software; information systems concepts in business; telecommunications; Ecommerce; enterprise systems; ethics, crime and security. Hands-on development of business applications. *Fall and Spring*

ISB 205 Management Software **3 credits**

Project management using MS Project, advanced data analysis and graphics with MS Access, database concepts

and design, presentation graphics. *Fall*

ISB 211 Visual Programming for Business **3 credits**

Introduction to the Visual Basic programming language and fundamentals of software design. Database programming, interface design and general problem solving with an emphasis on business applications. Prerequisite: ISB 101.

Spring

ISB 302 Sustainability & System Dynamics **3 credits**

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*

ISB 340 Data Management **3 credits**

Design and application of database management systems. Topics include structured query language (SQL), data structures, querying and report writing, database design and administration, data mining and security. Prerequisite: ISB 101 or equivalent. *Fall*

ISB 350 Networking **3 credits**

Digital (data) and voice networks; network hardware, software and protocols. Wired and wireless communication. Prerequisite: ISB 101 or equivalent. *Fall*

ISB 455 ECommerce **3 credits**

Fundamentals of E-commerce applications and technologies. Interactive website and or consumer shopping e-commerce design and development. Prerequisite: ISB 340. *Spring*

ISB 460 Computer Forensics **3 credits**

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

MATHEMATICS AND STATISTICS

**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.

Major course requirements:

Course	Title	Credits
Option A (Mathematics Major):		
MAT 111	Calculus I	4
MAT 112	Calculus II	4
MAT 211	Calculus III	4
MAT 219	Linear Algebra	4
MAT 222 or MAT 351	Differential Equations Probability and Statistics	4 3
MAT 230	Logic, Set Theory, and Proofs	4
MAT 311	Abstract Algebra	4
MAT 321	Real Analysis	4
MAT 380- 381-480	Mathematics Seminar	1 each
4 additional courses chosen from 300 or 400-level mathematics courses or PHY 335-336		12-16 credits
One of the following (3 credits)		
MAT 312	Topics in Algebra	3
MAT 322	Topics in Analysis	3
MAT 352	Probability and Statistics II	3
Option B (Mathematics with a concentration in another area)		
MAT 111	Calculus I	4
MAT 112	Calculus II	4
MAT 211	Calculus III	4
MAT 219	Linear Algebra	4
MAT 222 or MAT 351	Differential Equation Probability and Statistics	4 3
MAT 230	Logic, Set Theory, and Proofs	4
MAT 311	Abstract Algebra	4
MAT 321	Real Analysis	4
MAT 380- 381-480	Mathematics Seminar	1 each

2 additional courses chosen from 300 or 400-level mathematics courses or PHY 335-336		6-8
One of the following (3 credits)		
MAT 312	Topics in Algebra	3
MAT 322	Topics in Analysis	3
MAT 352	Probability and Statistics II	3
Option C (Statistics)		
MAT 111	Calculus I	4
MAT 112	Calculus II	4
MAT 211	Calculus III	4
MAT 219	Linear Algebra	4
MAT 222	Differential Equations or a 300 or 400-level mathematics course	4
MAT 230	Logic, Set Theory, and Proofs	4
MAT 321	Real Analysis	4
MAT 322	Topics in Analysis	3
or MAT 311	Abstract Algebra	4
MAT 351	Probability and Statistics I	3
MAT 352	Probability and Statistics II	3
MAT 380-381-480	Mathematics seminar	1 each
Three of the following:		
MAT 341	Numerical Analysis	3
MAT 353	Regression Analysis	3
MAT 354	Experimental Design and Statistical Computing	3 3
MAT 365	Logistic Regression	3
MAT 370	Topics in Statistics	3

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

Year	Fall Semester	Spring Semester
Freshman	Option A-B-C	Option A-B-C
	MAT 111 (4)	MAT 112 (4) PHY 223 (4) or ECO course (3)
Sophomore	Option A-B-C	Option A-B
	MAT 211 (4) MAT 230 (4) PHY 224 (4) or ECO course (3)	MAT 219 (4) MAT 222 (4) or MAT 351 (3)
		Option C
		MAT 219 (4) MAT 351 (3)

Junior	Option A-B	Option A-B
	MAT 311 (4) MAT 321 (4) MAT 380 (1)	MAT 381 (1) MAT elective (3 or 4)
	Option C	Option C
	MAT 321 (4) MAT 352 (3) MAT 380 (1)	MAT 381 (1) MAT 222 or 322 or MAT elective (3 or 4) Statistics elective: MAT 341 or 353 or 354 or 365 or 370 (3)
Senior	Option A	Option A
	MAT 480 (1) MAT elective (3 or 4) MAT elective (3 or 4)	One of MAT 312, 322, 352 (3) MAT elective (3 or 4)
	Option B	Option B
	MAT 480 (1) MAT elective (3 or 4)	One of MAT 312, 322, 352 (3)
	Option C	Option C
	MAT 480 (1) MAT 311 or MAT elective (3 or 4) Statistics elective: MAT 341 or 353 or 354 or 365 or 370 (3)	MAT 222 or 322 or MAT elective (3 or 4) Statistics elective: MAT 341 or 353 or 354 or 365 or 370 (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. 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)

Course	Title	Credits
MAT 111	Calculus I or MAT 115 Calculus for Business	4
MAT 112	Calculus II	4
MAT 211	Calculus III	4
MAT 219	Linear Algebra	4
MAT 230	Logic, Set Theory, and Proofs	4
Restricted electives: two courses from any one of the following tracks:		
Probability and Statistics		
MAT 351	Probability and Statistics I	3
MAT 352	Probability and Statistics II	3
MAT 353	Regression Analysis	3
MAT 354	Experimental Design and Statistical Computing	3
MAT 365	Logistic Regression	3
MAT 370	Topics in Statistics	3

Applied Mathematics		
MAT 222	Differential Equations	3
MAT 335	Mathematical Analysis for Physicists I	3
MAT 336	Mathematical Analysis for Physicists II	4
MAT 341	Numerical Analysis	3
MAT 342	Graph Theory	3
Theoretical Mathematics		
MAT 311	Abstract Algebra	4
MAT 312	Topics in Algebra	3
MAT 313	Number Theory	3
MAT 321	Real Analysis	4
MAT 322	Topics in Analysis	3
MAT 411	Topology	3
MAT 416	Differential Geometry	3
MAT 421	Complex Analysis	3
Mathematics and Culture		
MAT 301	History of Mathematics	3
MAT 331	Geometry	3

Mathmatic Courses: 2013 - 2015

MAT 105 Finite Mathematics 3 credits

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 3 credits

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*

MAT 150 Mathematics and Politics 3 credits

Liberal arts course emphasizing applications of math in the social sciences. Covers topics such as voting theory, decisions made by groups, measurement of political power. (Field 7) (Justice Attribute) *Prerequisite: 3 years of high school mathematics or equivalent. Spring*

MAT 181 Symmetry 3 credits

Liberal arts course exploring the mathematical world of geometry and symmetry. Measurement, billiards, polygons and polyhedra, tilings and wallpaper patterns, spirals and natural growth. (Field 7) *Prerequisite: 3 years of high school mathematics or equivalent. Fall*

MAT 191 Introduction to Discrete Mathematics 4 credits

Fundamental topics with computer science applications. Sets and logic, propositional and predicate calculus, elements of combinatorics and counting, elementary discrete probability, functions and relations, graphs. *Prerequisite: Sophomore standing or instructor's permission. Spring*

MAT 211 Calculus III 4 credits

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 & Spring*

MAT 219 Linear Algebra 4 credits

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 & Spring*

MAT 222 Differential Equations 4 credits

Introduction to the theory and applications of ordinary differential equations. *Prerequisite: MAT 211 with minimum grade of C -. Spring*

MAT 230 Logic, Set Theory, and Proofs 4 credits

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 & Spring*

MAT 301 History of Mathematics 3 credits

Development and interrelations of major areas of mathematics, from ancient to modern times. Emphasis on both historical context and mathematical content. Mathematics as cultural heritage. *Prerequisite: MAT 111-112. Fall*

MAT 311 Abstract Algebra 4 credits

Introduction to the basic structures of abstract algebra; groups, rings, fields. *Prerequisites: MAT 230 and MAT 219 with minimum grades of C -. Fall*

MAT 312 Topics in Algebra 3 credits

Continuation of MAT 311. Selected topics from rings, Integral domains, field extensions and Galois theory. *Prerequisite: MAT 311. Spring 2015*

MAT 313 Number Theory 3 credits

Divisibility, prime numbers, numerical functions, congruencies, quadratic reciprocity, Diophantine equations. *Prerequisite: MAT 311 or permission of instructor. On demand*

MAT 321 Real Analysis 4 credits

Advanced study of differentiation and integration of functions. *Prerequisites: MAT 211, 230, 219 with minimum grades of C -; or MAT 211, 230 and consent of instructor. Fall*

MAT 322 Topics in Analysis 3 credits

Continuation of MAT 321. Selected topics from functions of one or several variables. *Prerequisite: MAT 321 with minimum grade of C -. Spring 2014*

MAT 331 Geometry 3 credits

Axioms for geometry and their consequences: independence of the parallel postulate. Rudiments of hyperbolic geometry. Geometric transformations. *Prerequisite: MAT 230. Fall*

MAT 341 Numerical Analysis 3 credits

The methods used to obtain numerical solutions of functional, integral and differential equations. *Prerequisites: An elementary knowledge of computer programming and MAT 219. On demand*

MAT 342 (CSC 342) 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 365 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, Rouché'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)

Course	Title	Credits
BIO 114-114L	Human Biology: Intro to Anatomy & Physiology + Lab	4
BIO 115-115L	Musculoskeletal Anatomy + Lab	4
BIO 111-111L	Introductory Biology I + Lab	4
BIO 112-112L	Introductory Biology II + Lab	4
BIO 211-211L	Biochemistry & Cell Biology I + Lab	4
BIO 212-212L	Biochemistry & Cell Biology II + Lab	4
BIO 307-307L	Microbiology + Lab	4
BIO 426	Immunochemistry	3
CHM 111-111L	General Chemistry I + Lab	4
CHM 112-112L	General Chemistry II + Lab	4
CHM 227-227L	Organic Chemistry I + Lab	4
CHM 228-228L	Organic Chemistry II + Lab	4
MAT 141	Inferential Statistics and Computers for Science	4

Course	Title	Credits
Science Elective	One upper level science course approved by Director	3-4
Business/ Computer Science Elective	One course approved by Director	3
MDT 280-281	Seminar: Sophomore Level	2
MDT 380-381	Seminar: Junior Level	2
MDT 400-401	Hospital Rotation	30

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:

Course	Credits
MLS 101	3
MLS 111L (<i>Fall Semester</i>)	0
MLS 102	3
MLS 112L (<i>Spring Semester</i>)	0
MLS 201	3
MLS 211L (<i>Fall Semester</i>)	0
MLS 202	3
MLS 212L (<i>Spring Semester</i>)	0

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:

Course	Credits
MLS 301	3
MLS 311L	0
MLS 302	3
MLS 312L	0
MLS 401	3
MLS 411L	0
MLS 402	3
MLS 412L	0

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.

MLS 480	Leadership History	3
---------	--------------------	---

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 focus is 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, MLS 302 and MSL 310; concurrent registration in MLS 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 MLS 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/SPA 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:

Year	Fall Semester	Spring Semester
Freshman	FRC/GER/SPA 215	FRC/SPA 217, GER 216
Sophomore	FRC/GER/SPA 323 and/or GER 331	FRC/GER/SPA 324 and/or FRC/GER/SPA 332
Junior	Study Abroad	FRC/GER/SPA Elective
Senior	FRC/GER/SPA Elective	FRC/GER/SPA Elective

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 or 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. *Fall*. 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 331 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 324 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*

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 Etxebarria, 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. Field 3-Arts

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 exorciation 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 Gutiérrez 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.

PHILOSOPHY

Chair: Michael Forest, PhD

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.
- Acquired a capacity for thinking critically and for effectively assessing arguments.
- 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.

Course	Title	Credits
PHI 225	Logic	3
PHI 301	Ancient Philosophy	3
PHI 302	Medieval Philosophy	3
PHI 303 or PHI 304	Modern Philosophy (1 Course) At least one from the following: Early Modern Philosophy	3
	19th Century Philosophy	3
PHI 305 or PHI 306	Contemporary Philosophy (1 Course) And at least one more from the following: Contemporary Continental Philosophy	3
	Contemporary Analytic Philosophy	3

PHI 451	Senior Thesis	3
	One Theory of Ethics Course*	3
	One Applied Ethics Course**	3
	Philosophy Elective PHI 400 level	3
	Philosophy Elective	3
	Philosophy Elective	3
	Philosophy Elective	3
*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		

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.

Course	Title	Credits
PHI 225	Logic	3
	One Theory of Ethics Course*	3
	One Applied Ethics Course**	3
	Any one course of PHI 301, 302,	3
	Any one course of PHI 303, 304, 305, 306	3
	Philosophy Elective PHI 300 level	3
	Philosophy Elective PHI 300 level	3
	Philosophy Elective PHI 400 level	3
	Philosophy Elective	3
	Philosophy Elective	3
	*Chose among PHI 240, PHI 241, PHI 251, PHI 252, PHI 261	3
	**Chose among PHI 242, PHI 243, PHI 244, PHI 245, PHI 246, PHI 247, PHI 266, PHI 268, PHI 379	3

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.

Course	Credits
One course from among PHI 301, 302	3
One course from among PHI 303, 304, 305, 306	3
Philosophy Elective	3
Philosophy Elective	3
Philosophy Elective	3

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.

Year	Fall Semester	Spring Semester
Freshman	FYS 101	ENG 101
	PHI 101	RST 101
	Core Field 3	PHI 225 Logic (Core Field 2)
	Free Elective	Core Field 4
	Free Elective	Free Elective
Sophomore	PHI History Component	PHI History Component
	PHI Ethics Theory	PHI Applied Ethics
	Core Field 1	Core Field 5
	Free Elective	Free Elective
	Free Elective	Free Elective
Junior	PHI 300 Elective	PHI Elective
	PHI Elective	PHI 400 Elective
	Core Field 6	Core Field 7
	Free Elective	Free Elective
	Free Elective	Free Elective
	Free Elective	Free Elective
Senior	PHI Elective	PHI Elective
	Free Elective	PHI 451
	Free Elective	Free Elective
	Free Elective	Free Elective
	Core Capstone	Free Elective

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 261 – 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 philosophic analysis and argumentation and expect students to demonstrate deeper capacity to compare and contrast the reasoning of different philosophers on a topic or theme. These courses are consistently more specialized and focus examination on primary texts with special attention to identify and extract the principles and premises underlying a philosopher's argumentation and then to reconstruct its chain of reasoning. At least two PHI 300 level courses are prerequisite for PHI 400 courses and senior 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.

Course	Title	Credits
PHI 401	Seminar on Ancient Philosophy	3
PHI 402	Seminar on Medieval Philosophy	3
PHI 403	Seminar on Modern Philosophy	3
PHI 404	Seminar on Contemporary Philosophy	3
PHI 405	Seminar on Topics in Metaphysics	3
PHI 406	Seminar on Topics in Epistemology	3
PHI 407	Seminar on Topics in Ethics	3
PHI 408	Seminar on Topics in Aesthetics	3
PHI 409	Seminar on Topics in Social and Political Philosophy	3
PHI 451	Senior Thesis – A Philosophy capstone experience	3

An Ignatian Scholar successfully completes a senior thesis. This is a culminating experience in which a student expresses mature habits of self-directed study and critical analysis, with an ability to integrate knowledge beyond the expectations of a seminar paper. A senior thesis addresses a select philosophic topic and is especially concerned with philosophic argumentation. An Ignatian Scholar demonstrates ability to exercise appropriate research methods, to provide critical assessment of issues, to assess theoretical presuppositions underlying a discourse and to advance well-constructed argumentation. A senior thesis ought to exhibit the values of the department mission.

PHI 499– Directed Readings in Philosophy 3 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

Course	Title	Credits
PED 203	Net, Target, and Fitness Activities	3
PED 204	Invasion Games	3
PED 207	Dance and Gymnastics	3
PED 305	Outdoor Curriculum and Cooperative Activities	3
PED 311	Movement Education and Elementary Activities	3
PED 351	Coaching Theory and Techniques	3
PED 354	Adapted Physical Education	3
PED 355	Disability Sports	3
PED 360	Human Growth and Motor Development	3
PED 371	Assessment in Physical Education	3
KIN 235	Kinesiology	3
BIO 114/L	Human Biology: An Introduction to Anatomy and Physiology	4
BIO 115/L	Musculoskeletal Anatomy and Physiology	4
HED 205	Wellness and Fitness	3
HED 321	Lifeguard, CPR, First Aid, WSI	3
HED 337	Exercise Principles and Applications	3
HED 361	Psychology of Sport and Mental Health	3
EDU 122	Technology in Education	3
EDU 250	Foundations of Education	3
PED 372	Seminar in Kinesiology	3
PED 380	Concepts in Teaching Sport Skills	3
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 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

Year	Fall Semester	Spring Semester
Freshman	FYS 101 (3 credits)	ENG 101 (3 credits)
	Field of Knowledge Course (3 credits)	Field of Knowledge Course (3 credits)
	EDU 122 (3 credits)	PED 203 (3 credits)
	BIO 114 and Lab (4 credits)	BIO 115 and Lab (4 credits)
	PED 204 (3 credits)	PED 207 (3 credits)
Sophomore	RST 101 (3 credits) or PHI 101 (3 credits)	RST 101 (3 credits) or PHI 101 (3 credits)
	Field of Knowledge Course (3 credits)	PED 351 or KIN 235 (3 credits)
	PED 354 or HED 361 (3 credits)	HED 337 (3 credits) or HED 205 (3 credits)
	KIN 235 or PED 351 (3 credits)	
	HED 205 (3 credits) or HED 337 (3 credits)	HED 361 (3 credits) or PED 354 (3 credits)
Junior	Field of Knowledge Course (3 credits)	Field of Knowledge Course (3 credits)
	Elective (3 credits)	Elective (3 credits)
	PED 355 (3 credits)	PED 371 (3 credits)
	HED 321 (3 credits)	PED 372 (3 credits)
	PED 311 (3 credits)	EDU 250 (3 credits)

Year	Fall Semester	Spring Semester
Senior	Field of Knowledge Course (3 credits)	PED 493 (12 credits)
	PED 305 (3 credits)	
	PED 441 (3 credits)	EDU 495 (0 credits)
	PED 380 (3 credits)	EDU 496 (0 credits)
	PED 360 (3 credits)	
	PED 494 (3 credits)	

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:

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

Note: Dr. Karl Kozlowski or Dr. Chuck Pelitera serve as advisors for the Strength and Conditioning minor program in the Department of Kinesiology.

PHYSICAL EDUCATION – HEALTH

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

Course	Title	Credits
Physical Education Courses		
PED 203	Net, Target, and Fitness Activities	3
PED 204	Invasion Games	3
PED 207	Dance and Gymnastics	3
PED 305	Outdoor Curriculum and Cooperative Activities	3
PED 311	Movement Education and Elementary Activities	3
PED 351	Coaching Theory and Techniques	3
PED 354	Adapted Physical Education	3
PED 355	Disability Sports	3
PED 360	Human Growth and Motor Development	3
PED 371	Assessment in Physical Education	3
KIN 235	Kinesiology	3
Health Education Courses		
BIO 114/L	Human Biology: An Introduction to Anatomy and Physiology	4
BIO 115/L	Musculoskeletal Anatomy and Physiology	4
HED 115	Basic Nutrition	3
HED 205	Wellness and Fitness	3
HED 220	Healthy Behaviors	3
HED 321	Lifeguard, CPR, First Aid, WSI	3
HED 325	School Health	3
HED 326	Health Curriculum	3
HED 337	Exercise Principles	3
HED 361	Psychology of Sport and Mental Health	3
HED 425	Evolution of Disease and Illness	3
Pedagogical Core		
EDU 122	Technology in Education	3
EDU 250	Foundations of Education	3
PED 372	Seminar in Kinesiology	3
PED 380	Concepts in Teaching Sport Skills	3

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

All students in the physical education/health 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/health 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.

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	RST 101 (3 credits) or PHI 101 (3 credits)	RST 101 (3 credits) or PHI 101 (3 credits)
	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)

Year	Fall Semester	Spring Semester
Senior	PED 441 (3 credits)	
	PED 441 Lab (0 credits)	PED 493 (12 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.

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:

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

Note: Dr. Karl Kozlowski or Dr. Chuck Pelitera serve as advisors for the Strength and Conditioning minor program in the Department of Kinesiology.

PHYSICAL EDUCATION – SPORT STUDIES

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/>

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

Course	Title	Credits
SPMT 150	Introduction to Sports Management	3
HED 205	Wellness and Fitness	3
HED 220	Healthy Behaviors	3
SPMT 230	Sport and Recreation Law	3
KIN 235	Kinesiology	3
HED 337	Exercise Principles and Applications	3
PED 351	Coaching Theory and Techniques	3
HED 425	Disease and Illness	3
HED 361	Psychology of Sport and Mental Health	3
BIO 114/L	Human Biology: An Introduction to Anatomy and Physiology	4
BIO 115/L	Musculoskeletal Anatomy and Physiology	4
	PE or Health Elective	3
	PE or Health Elective	3
	PE or Health Elective	3

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

Year	Fall Semester	Spring Semester
Freshman	SPMT 150 (3 credits)	HED 220 (3 credits)
	BIO 114 and Lab (4 credits)	BIO 115 and Lab (4 credits)
	RST 101 (3 credits)	PHI 101 (3 credits)
	FYS 101 (3 credits)	ENG 101 (3 credits)
		Elective (3 credits)
Sophomore	KIN 235 (3 credits)	SPMT 230 (3 credits)
	HED 205 (3 credits)	Field 1 (3 credits)
	Field 7 (3 credits)	Electives (9 credits)
	Electives (6 credits)	
Junior	HED 337 (3 credits)	HED 361 (3 credits)
	PED 351 (3 credits)	Field 3 (3 credits)
	Field 2 (3 credits)	Electives (9 credits)
Senior	HED 425 (3 credits)	Core Capstone (3 credits)
	Field 4 (3 credits)	Electives (12 credits)
	Electives (9 credits)	

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

Course	Title	Credits
PSY 101	Introduction to Psychology I	3
PSY 102	Introduction to Psychology II	3
PSY 201	Basic Statistics for Behavioral Sciences	3
PSY 202	Experimental Psychology	3
PSY 318	Social Psychology	3
PSY 329	Leadership and Motivation	3
PSY 373	Behavior Modification	3
PED 498	Internship (Recommended but not required)	3

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:

Course	Title	Credits
MAT 105	Linear Algebra	3
MAT 131	Statistics and Computers	3
ECO 101	Principles of Microeconomics	3
ECO 102	Principles of Macroeconomics	3
MGT 101	Management of Organizations	3
ACC 201	Financial Accounting	3
ACC 202	Managerial Accounting	3
ISB 101	Management Technology	3

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:

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

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 for Health Education, PED for Physical Education, KIN for Kinesiology Courses: 2013 – 2015

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. *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 pro-grams 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*

PHYSICS

Chair: Kenneth Scherkoske, PhD

Introduction

The Canisius College Physics major provides a strong background in the scientific skills of analysis and experimentation and gives students a broad choice of career opportunities. The Physics major is a preparation for further study in graduate physics and related areas such as oceanography, geophysics, patent law, medicine, engineering and astronomy and entry into research and development employment. The specific goal for majors is a thorough knowledge of basic physical science and the mathematical and experimental application of this basis to the study of natural phenomena. Other offerings are intended to give non-majors an appreciation of the relation between science and the world within which they live. 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>

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/>

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.

Major Courses

Major Course Requirements: (18 courses)

Course	Title	Credits
PHY 223-224	General Physics for Physical Science Majors	4-4
PHY 225	General Physics III	4
PHY 226	Basic Electronics	4
PHY 330	Electrodynamics, I	3
PHY 331	Electrodynamics, II	3
PHY 332	Statistical and Thermal Physics	
PHY 335-336	Mathematics for Physics I, II	4-4
PHY 350-351	Advanced Laboratory (1-1)	1-1
PHY 443	Classical Mechanics	3
PHY 447	Quantum Mechanics	3
PHY 445	Special Topics in Physics	1
PHY 498	Senior Project	1-3
CHM 111	General Chemistry	4
CSC 107	Computer Programming for Science	4
MAT 111-112	Calculus I and II	4-4
MAT 211	Calculus III	4
MAT 222	Differential Equations	4

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

Year	Fall Semester	Spring Semester
Freshman	CHM 111	*Science Elective
	*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 <i>Spring</i> Semester of the Freshman year.	
	CSC 107	MAT 112
Sophomore	MAT 111	PHY 223
	MAT 211	MAT 222
	PHY 224	PHY 225
Junior		PHY 226
	PHY 330	PHY 331
	PHY 350 (1)	PHY 351 (1)
Senior	PHY 335	
	PHY 336	PHY 447
	PHY 332	PHY 499
	PHY 443	
	PHY 445 (1)	

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:

Four Required Courses	
Course	Title
PHY 223	General Physics I
PHY 224	General Physics II (8)
PHY 225	General Physics III
MAT 211	Calculus III
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*

POLITICAL SCIENCE

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)

Course	Credits
Required course (7 courses)	3
PSC 103 American Constitution	
PSC 104 American Political Process	3
PSC 111 Western Political Tradition	3
PSC 140 International Relations	3
PSC 150 Comparative Government and Politics	3
PSC 217 Research Methods	3
PSC 401 Capstone (see course description for details)	11

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

Year	Fall Semester	Spring Semester
Freshman	PSC 103 (3 credits)	PSC 104 (3 credits)
	PSC 150 (3 credits)	PSC 140 (3 credits)
Sophomore	PSC 111 (3 credits)	PSC Major Elective
	PSC 217 (3 credits)	PSC Major Elective (300/400 level)
Junior	PSC Major Elective (300/400 level)	PSC Major Elective
Senior	PSC Major Elective	PSC 401 (1 credit)

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.

Course	Title	Credits
PSC 103	American Constitution	3
PSC 104	American Political Process	3
PSC 111	Western Political Tradition	3
PSC 140	International Relations	3
PSC 150	Comparative Government and Politics	3
PSC 215, 237 or 334	Public-Policy	3
PSC 224, 225, 325 or 335	American Political Institutions and Behavior	3
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):

Course	Title	Credits
PSC 103	American Constitution	3
ECO 101	Macroeconomics	3
PSC 215	National Issues and Public Policy	3
PSC 245	American Foreign Policy	3
PSC 345	International Crime after 9/11	3
ECO 401	Public Finance or approved substitute	3
PSC 320	American Constitutional Law I	3
PSC 321 or PSC 420	American Constitutional Law II Constitution, War on Terror and Civil Liberties	3

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.

Department Honors Program

The Political Science Honors Program provides an opportunity for outstanding students in the major to go beyond the usual course offerings. Majors who take part in the program will engage in original research under the close supervision of a faculty member. The research project provides the opportunity for students to do independent study on a topic of their own choosing. Participants in the All-College Honors Program may use their senior thesis to fulfill this requirement, provided that this project is prepared under the direction of a member of the Political Science Department.

Taking part in the Honors program can also make students more competitive after graduation, whether for further schooling or employment. For example, students applying for graduate school or law school in their senior year can refer to the research paper in their application. At the same time, participation on the Departmental Honors Program will enable students' faculty advisors to write more detailed and enthusiastic letters of recommendation for these applications.

Requirements

- Students may apply in the spring of their junior year or in their senior year
- Grade point average overall (to apply for the program and upon graduation): 3.30
- Grade point average for major courses (to apply for the program and upon graduation): 3.50
- Honors Research: a lengthy paper involving original research in the field of Political Science under the direction of a member of the Political Science Department

Political 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 210 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 343 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**

Cross-border organized crime and responses, especially in North America and Europe. Emphasis on drug trafficking, terrorism and illegal immigration. Crime-fighting, counter-terrorism, border management and international police cooperation. Guest speakers and video. *Spring*

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>

Learning Goals and Objectives

For learning goals and objectives please go to <http://www.canisius.edu/physics/learning-goals-objectives/>

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/>

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.

2+2 Program

Major Courses

This varies depending on the engineering major chosen, but typically includes:

Course	Title	Credits
MAT 111	Calculus I	4
MAT 112	Calculus II	4
MAT 211	Calculus III	4
MAT 222	Differential Equations	4
CHM 111	General Chemistry I	4
CHM 112	General Chemistry II (or PHY 225)	4
PHY 223	Physics I	4
PHY 224	Physics II	4
PHY 225	Physics III (or CHM 112)	4
PHY 226	Introduction to Electronics	4
EGR 111	Introduction to Engineering Design	3
EGR 207	Engineering Statics	3
EGR 208	Engineering Dynamics	3
EGR 214	Strength of Materials	3
EGR 211	Engineering Thermodynamics	3
CSC 107	Computer Programming for Science	4

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

Fall		Spring	
Freshman			
CHM 111	4 credits	CHM 112/ Elective*	4 credits
EGR 111	3 credits	MAT 112	4 credits
CSC 107	4 credits	PHY 223	4 credits
MAT 111	4 credits *If PHY 225 will be taken		
Sophomore			
MAT 211	4 credits	MAT 222	4 credits
PHY 224	4 credits	PHY 225/ Elective*	4 credits
EGR 211	3 credits	PHY 226	4 credits
EGR 207	3 credits	EGR 208	3 credits
		EGR 214	3 credits
*If CHM 112 was taken			
Junior Year	Completed at an Engineering Institution		
Senior Year	Completed at an Engineering Institution		

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

Course	Title	Credits
PHY 223-224	General Physics for Physical Science Majors	4-4
PHY 225	General Physics III	4
PHY 226	Basic Electronics	4
PHY 330	Electrodynamics I	3
PHY 331	Electrodynamics II	3
PHY 332	Statistical and Thermal Physics	3
PHY 335-336	Mathematics for Physics, I,II	4-4
PHY 350-351	Advance Laboratory	1-1
PHY 443	Classical Mechanics	3
PHY 447	Quantum Mechanics	3
PHY 445	Special Topics in Physics	1
PHY 498	Senior Project	1-3
CHM 111	General Chemistry I	4
CSC 107	Computer Programming for Science	4
MAT 111-112	Calculus I and II	4-4
MAT 211	Calculus III	4
MAT 222	Differential Equations	4

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

Year	Fall	Credits	Spring	Credits
Freshman	CHM 111	4	CHM 112/ Elective*	4
	MAT 111	4	MAT 112	4
	CSC 107	4	PHY 223	4
	EGR 111	3	*If PHY 225 will be taken	
Sophomore	MAT 211	4	MAT 222	4
	PHY 224	4	PHY 225/ Elective*	4
	EGR 207	3	PHY 226	4
			EGR 208	3
			*If CHM 112 was taken	
Junior	EGR 211	3	EGR 214	3
	Fall Physics courses in Physics Curriculum		Spring Physics courses in Physics Curriculum	

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.

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*

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/>

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>

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

Course	Title	Credits
Four basic courses		
PSY 101	Introduction to Psychology I	3
PSY 102	Introduction to Psychology II	3
PSY 201	Basic Statistics for Behavioral Sciences	3
PSY 202	Experimental Psychology	3
Core I: Neuroscience & Cognition (one course to be chosen from the following):		
PSY 324	Learning & Cognition	3
PSY 326	Psychology of Memory	3
PSY 391	Biopsychology of Stress	3
PSY 397	Neurobiology of Mental Disorders	3
PSY 398	Neurobiology of Childhood Mental Disorders	3
PSY 410	Fundamentals of Human Neuropsychology	3
PSY 431	Sensation and Perception	3
Core II: Developmental & Psychosocial (one course to be chosen from the following):		
PSY 203	Lifespan Developmental Psychology	3
PSY 302	Personality Psychology	3
PSY 303	Abnormal Psychology	3
PSY 318	Social Psychology	3
PSY 323	Motivation and Emotion	3
PSY 384	Child & Adolescent Psychology	3
Core III: Outcomes & Applications (one course to be chosen from the following):		
PSY 229	Industrial/Organizational Psychology	3
PSY 329	Leadership and Motivation	3
PSY 334	Child, Family, & Community Psychology	3
PSY 373	Behavior Modification	3
PSY 395	Assessment in the Behavioral Sciences	3
PSY 452	Techniques of Counseling Psychology	3

Major Electives

Psychology electives: any three courses listed in the catalog or substitutions approved by the department chairperson.

Recommended Semester Schedule for Major Course

Year	Fall Semester	Spring Semester
Freshman	PSY 101 (3 credits)	PSY 102 (3 credits)
Sophomore	PSY 201 (3 credits)	PSY 202 (3 credits)
	Psychology core	Psychology core
Junior	Psychology core	Psychology elective
Senior	Psychology elective	Psychology elective

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*

PSY 334 Child, Family and Community**Psychology****3 credits**

Effects of social and non-social environments on emotions, thoughts and behaviors. Psychological reactions and adjustments to the nature of community life. Deals with social problems such as AIDS, alcoholism and child and elder abuse. (Also counts for CRJ credit.) *Fall*

PSY 369 Forensic Psychology**3 credits**

Psychology's role in the legal system: criminal behavior, trial process (competency evaluation, psychologists as expert witnesses, jury selection, jury deliberation, insanity defense), law enforcement and corrections, family law (divorce, domestic violence, child custody). (Also counts for CRJ credit.) *Spring*

PSY 373 Behavior Modification**3 credits**

Application of conditioning principles to changing human behavior and cognitions, emphasis on practical problems. *Fall*

PSY 384 Child Psychopathology**3 credits**

This course will introduce students to the signs and symptoms of various psychiatric disorders of childhood and adolescence (e.g., conduct disorder, ADHD). *Spring and Fall*

PSY 391 Biopsychology of Stress**3 credits**

Examines the physiological and psychological components and effects of stress, including the involvement of the nervous, immune and endocrine systems. *Fall*

PSY 395 Assessment in the Behavioral Sciences**3 credits**

Addresses fundamentals of classic test theory, scaling, reliability, and validity and provides an overview of measures of intelligence, achievement, and personality for clinical, educational, and research use. Prerequisite: PSY 201 *Fall*

PSY 397 Neurobiology of Mental Disorders**3 credits**

Examines the role of the central nervous system and other biological factors underlying the symptoms, etiology and treatment of various mental disorders. *Fall*

PSY 398 Neurobiology of Childhood Mental**Disorders****3 credits**

A sequel to the Neurobiology of Mental Disorders course that is currently being offered. This course will focus on the neurobiological underpinnings of several developmental and other mental disorders affecting children today. PSY 397 or Behavioral Neuroscience/Neuropsychology course is a prerequisite. *Spring*

PSY 401 Advanced Statistics Seminar**3 credits**

Topics include bivariate and multiple regression, least-squares estimation, model-building techniques, assumptions and diagnostics, mediation and moderation, the logistic model and exploratory factor analytic techniques. SPSS will be used throughout. Students will conduct a final research project through secondary analysis of a large national data set. *Spring*

PSY 406 Selected Topics in Psychology**3 credits**

Current and advanced topics which may vary from semester to semester will be covered in this seminar. *Spring*

PSY 406 Positive Psychology**3 credits**

Seminar course focusing on topics such as happiness, optimism, resilience and courage. Considers what makes a life meaningful and ways to achieve a positive life. *Spring*

PSY 410 Fundamentals of Human**Neuropsychology****3 credits**

An advanced course that provides students with a perspective on the neural mechanisms underlying behavior. Material covered in the course will include (but not be limited to) structure and function of the brain from the cellular to the structural levels, brain imaging techniques, and brain development, plasticity and neurological disorders. *Spring*

PSY 431 Sensation and Perception**3 credits**

This course is an introduction to sensory systems and perceptual processes. Course focuses on each of the major sensory systems, beginning with the anatomy and physiology of the sense organ, and builds up to how we represent that information in the mind. *Spring*

PSY 452 Techniques of Counseling 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):

Course	Title	Credits
RST 200	Introduction to the Hebrew Bible	3
RST 201	Introduction to the New Testament	3
RST Course in a non-Christian contemporary religion		3
RST 400	Religious Studies and Theology Seminar	3
RST 489	Project for Majors	3

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:

Year	Fall Semester	Spring Semester
Freshman	RST 101 (3 credits)	RST 200 (3 credits)
Sophomore	RST 201 (3 credits)	RST Course in a non-Christian contemporary religion (3 credits)
	RST Elective (3 credits)	
Junior	RST 400 (3 credits)	RST Elective (3 credits)
	RST Elective (3 credits)	RST Elective (3 credits)
Senior	RST 489 (3 credits)	RST Elective (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. Religious Studies and Theology majors have often majored in Communications, Education, History, Philosophy, or Psychology.

Minors

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

Minors 2

The Religious Studies and Theology Department offers a minor in the general area of religious studies for those seeking an overview of the field, as well as minor tracks in 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.

Religious Studies Courses: 2013-2015

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

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**

The experience of dying and the meaning of death in the Old Testament and New Testament and in Christian theology. Loss and grief. The funeral. Suicide. Aging. Eternal life. Field 1

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.

SOCIAL SCIENCES PROGRAM

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/>
2. Major course requirements (21 courses)

Basic social sciences: four courses each from four of the following departments, for a total of 16 courses: (48 credits)	
Anthropology: ANT 121-122 plus two 300/400 level courses	
Communication Studies: two of the following: COM 201, 202, 203, 204, 205, 206, plus two 300/400 level courses	
Economics: ECO 101-102, plus two 300/400 level courses	
History: HIS 123-124, plus two 300/400 level courses	
Political Science: PSC 103-104 plus two 300/400 level courses	
Psychology: PSY 101-102, plus two Psychology courses above 100 level	
Sociology: SOC 110 and SOC 111, Plus two 300/400 level courses	
Three additional 300/400 level courses in one of the chosen departments: Interdisciplinary courses may be substituted for one or more department courses	9 credits
MAT 131 Statistics and Computers	3 credits
Social Sciences methods: PSC 217, SOC 342, or URS 350 or ANT 351	3 credits

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/>
2. Major course requirements (8 courses)

Social Sciences Track	
MAT 106 Calculus for the Non-Sciences I	3 credits
MAT 131 Statistics and Computers	3 credits
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)	18 credits

Business Track	
QNT 101 Quantitative Methods for Business	3 credits
MAT 106 Calculus for the Non-Sciences I	3 credits
ECO 101 Principles of Macroeconomics	3 credits
ECO 102 Principles of Microeconomics	3 credits
ACC 201 Financial Accounting	3 credits
ACC 202 Managerial Accounting	3 credits
Electives (2 courses from the business core)	

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.

SOCIOLOGY, ANTHROPOLOGY & CRIMINAL JUSTICE

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>

Learning Goals and Objectives

For learning goals and objectives please go to <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/>

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

Course	Title	Credits
MAT 131	Statistics and Computers	3
SOC 110	Introduction to Sociology	3
SOC 111	Contemporary Social Problems	3
SOC 342	Research Methods	4
SOC 432	Theories in Sociology	3
SOC 461	Senior Capstone	1
Six 3 credit sociology electives (18 credit hours)		
Major Electives:		
SOC 234	Environment and Society	3
SOC 240	Sociology of Religion	3
SOC 273	Social Movements and Social Change	3
SOC 291	Gender and Society	3
SOC 299	Immersion Reflection	1
SOC 300	Special Topics in Sociology	3
SOC 324	Visual Sociology	3
SOC 340	Sociology of the City	3
SOC 341	Race and Ethnic Relations	3
SOC 390	Marriage and Families	3
SOC 498	Internship	3
SOC 499	Individual Reading and Research Methods	3

The following courses in the other departments count as electives for the sociology major No more than 2 will count towards the sociology major:		
ANT 122	Sociocultural Anthropology	3
ANT 351	Qualitative Research Methods	3
ANT 355	Sociolinguistics	3
ANT 360	African American English	3
ANT 365	Gender Issues in Language	3
CRJ 320	Criminology	3
CRJ 354	Juvenile Delinquency	3

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

Year	Fall Semester	Spring Semester
Freshman	SOC 110 (3 credits)	SOC 111 (3 credits)
Sophomore	MAT 131 (3 credits)	SOC Elective (3 credits)
	SOC Elective (3 credits)	
Junior	SOC 342 (4 credits)	SOC Elective (3 credits)
	SOC Elective (3 credits)	
Senior	SOC 432 (3 credits)	SOC 461 (1 credits)
	SOC Elective (3 credits)	SOC Elective (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.

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

Course	Title	Credits
ANT 121	Biological Anthropology	3
ANT 122	Sociocultural Anthropology	3
ANT 201 or ANT 250	The Science of Linguistics or Contemporary Linguistics	3
ANT 230	Introduction to Archeology	3
ANT 351	Qualitative Research Methods	3
ANT 461	Senior Capstone	1
Major Electives:		
ANT 240	Anthropology & Film	3
ANT 290	Anthropology & Evolution	3
ANT 300	Special Topics in Anthropology	3
ANT 310	Codebreaking	3
ANT 333	Forensic Anthropology	3
ANT 355	Sociolinguistics	3
ANT 360	African American English	3
ANT 365	Gender Issues in Language	3
ANT 370	Origin and Evolution of Language	3
ANT 399	Field Work	3
ANT 499	Individual Reading and Research	3
The following courses offered by other departments count as electives for the anthropology major and minor:		
BIO 312	Primatology	3
RST 221	Native American Religions	3
RST 222	African Tribal Religions	3
RST 224	Islam	3
RST 226	Hinduism	3
RST 360	Magic, Science and Religion	3

Recommended Semester Schedule for Major Course Requirements

Year	Fall Semester	Spring Semester
Freshman	ANT 121 (3 credits)	ANT 122 (3 credits)
Sophomore	ANT 230 (3 credits)	ANT 201 (3 credits) or ANT 250 (3 credits)
	ANT elective (3 credits)	ANT elective (3 credits)
Junior	ANT 351 (3 credits)	ANT elective (3 credits)
	ANT elective (3 credits)	ANT 451 (3 credits) when offered
Senior	ANT elective (3 credits)	ANT 451 (3 credits) when offered
		ANT 461 (1 credit)

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*

ANT 251 Anthropology and Evolution **3 credits**

Concept of evolution in the five major areas of anthropology: biological, archaeology, sociocultural, linguistics, and applied anthropology. This course stresses the value of empirical evidence and critical thinking. (Field 5) *Spring*

ANT 300 Special Topics in Anthropology **3 credits**

Critical examination of a selected topic in anthropology. Subject matter determined by the instructor.

ANT 310 Codebreaking **3 credits**

The evolution of codes and the relevance of codes to contemporary society. Covers the history of codes and the achievements of code breakers who deciphered ancient texts. Students will acquire and practice skills needed to identify structural components of codes.

ANT 333 Forensic Anthropology **3 credits**

Anthropological methods and information used to survey the origin and history of crime science. Emphasis on the use of well-known case studies in order to understand and appreciate the value of forensic investigation. *Spring*

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. *Fall*

ANT 355 Sociolinguistics **3 credits**

Investigates the nature of the relationship between social behavior and language change within linguistic communities.

ANT 360 African American English **3 credits**

Explores the development and the structure of dialects of African American English, identifying phonological, morphological, syntactic, semantic and lexical differences that contribute to the richness and vitality of the language.

ANT 365 Gender Issues in Language **3 credits**

Explores the intersection of language and gender, examining gender-related stylistic variation in conversation and communication between and among women and men as cross-cultural communication.

ANT 370 Origin and Evolution of Language **3 credits**

Surveys theories of the origin and development of language, exploring early perspectives drawn from mythology, religion and philosophy as well as current views emerging from the social and natural sciences.

ANT 399 Field Work **3 credits**

Offers practical experience in a variety of social situations and cultural settings. Observations and research logs are used to provide a basis for analysis. Prerequisite: Permission of department chair. *Fall and Spring*

ANT 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 ANT 451.

ANT 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*

CRIMINAL JUSTICE

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

Course	Title	Credits
MAT 131	Statistics and Computers	3
SOC 110	Introduction to Sociology	3
SOC 342 or ANT 351	Research Methods Qualitative Research Methods	4 3
CRJ 227	Introduction to Criminal Justice I	3
CRJ 228	Introduction to Criminal Justice II	3
CRJ 320	Criminology	3
CRJ 382	Criminal Justice Ethics	3
CRJ 449	Criminal Law	3
CRJ 450	Criminal Procedure	3
CRJ 461	Senior Capstone	1
<i>Criminal Justice Electives: three courses</i>		
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

Course	Title	Credits
CRJ 359	Women and Crime	3
CRJ 498	Criminal Justice Internship	3
CRJ 499	Individual Reading and Research	3
The following courses offered by other departments or programs count as electives for the criminal justice major and minor:		
ANT 310	Codebreaking	3
ANT 333	Forensic Anthropology	3
BIO 299	Forensic Science	3
ISB 460	Computer Forensics	3
PSC 103	Constitutional Foundation of American Government	3
PSC 320	American Constitutional Law I	3
PSC 321	American Constitutional Law II	3
PSC 345	International Crime after 9/11	3
PSC 420	Constitution, War on Terror and Civil Liberties	3
The following psychology courses will count as electives for dual psychology/criminal justice majors:		
PSY 303	Abnormal Psychology	3
PSY 360	Law & Psychology	3
Dual psychology/criminal justice majors may satisfy the statistics and methods requirements with the following courses:		
PSY 201	Basic Statistics for Behavioral Sciences	3
PSY 202	Experimental Psychology	3

Internships

Many internship opportunities are available to qualified juniors and seniors. As an urban center situated on the Niagara Frontier, Buffalo offers numerous internship experiences where students can explore careers and get valuable real life experience.

Foreign Language and Study Abroad

The department encourages criminal justice majors to study a foreign language of their choice and to participate in the college study abroad program.

Recommended Semester Schedule for Major Course Requirements

Year	Fall Semester	Spring Semester
Freshman	SOC 110 (3 credits)	MAT 131 (3 credits)
Sophomore	CRJ 227 (3 credits)	CRJ 228 (3 credits)
	CRJ Elective	CRJ elective
Junior	CRJ 382 (3 credits)	CRJ 320 (3 credits)
	SOC 342 (4 credits) or ANT 351 (3 credits)	CRJ elective
Senior	CRJ 449 (3 credits)	CRJ 450 (3 credits)
		CRJ 461 (1 credit)

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 rationale 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

Course	Title	Credits
ACC 201	Financial Accounting	3
ACC 202	Managerial Accounting	3
ECO 101	Principles of Macroeconomics	3
ECO 202	Principles of Microeconomics	3
ISB 101	Management Technology	3
MGT 101	Introduction to Management	3 Credits

2. Sports Management Course Requirements

Course	Title	Credits
SPMT 150	Introduction to Sports Management	3
SPMT 230	Sport & Recreation Law	3
SPMT 241	Practicum	3
SPMT 245	Technology in Sport	3
SPMT 302	Sport & Ethics	3
SPMT 304	Sport, Culture & Society	3
SPMT 320	Psychology of Sport	3
PED 351	Coaching Theory & Techniques	3
SPMT 355	Sport Operation & Planning	3
SPMT 412	Sport Marketing	3
SPMT 420	Economics & Finance in Sport Industry	3 Credits
SPMT 430	Sport Communications	3 Credits
SPMT 440	Global Perspective in Sport	3 Credits
SPMT 475	Sport Management Professional Development Seminar	3 Credits
SPMT 480	Research Methods	3 Credits
SPMT 490	Internship	3 Credits

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:

Year	Fall Semester	Spring Semester
Freshman	SPMT 150	SPMT 230
Sophomore	SPMT 241	SPMT 245
	ECO 101	ECO 102
	MGT 101	
Junior	SPMT 302	SPMT 320
	SPMT 304	PED 351
	ISB 101	SPMT 355
	ACC 201	ACC 202
Senior	SPMT 412	SPMT 420
	SPMT 455	SPMT 475
	SPMT 430	SPMT 480
	SPMT 440	SPMT 490

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. *Spring*

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*

URBAN STUDIES

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

Course	Title	Credits
PSC 104	American Political Process	3
ECO 102	Principles of Microeconomics	3
PSC 237	State and Local Politics	3
PSC 334	Public Administration	3
PSC 336	Urban Government and Politics	3
HIS 373 or HIS 381 or HIS 382	Urban Portraits: Topics in Urban History History of Buffalo New York State History	3 3 3
ECO 311 or ECO 312 or ECO 411	Regional Economics and GIS Spatial Economics and GIS State and Local Finance	3 3 3
URS 400	The Urban Challenge	1

Major Electives

Urban Studies Electives: three courses to be chosen from the following:

Course	Title	Credits
CRJ 227	Introduction to Criminal Justice I	3
ECO 101	Principles of Macroeconomics	3
ECO 311	Regional Economics and GIS	3
ECO 312	Spatial Economics and GIS	3
ECO 411	State and Local Finance	3
FAH 109	History of Architecture	3
HIS 373	Urban Portraits: Topics in Urban History	3
HIS 381	History of Buffalo	3
HIS 382	New York State History	3
HIS 396	Politics and Society in American Film	3
PSC 103	Constitutional Foundations of American Government	3
PSC 215	National Issues and Public Policy	3
PSC 217	Research Methods	3
RST 225	Religion and Society	3
SOC 111	Contemporary Social Problems	3
SOC 340	Sociology of the City	3
URS 201	Planning for Urban Revitalization	3
URS 498	Urban Internship	1-9
URS 499	Independent Study	1-9

Recommended Semester Schedule for Major Course Requirements

Year	Fall Semester	Spring Semester
Freshman	PSC 104	ECO 102
Sophomore	PSC 237	PSC 336
Junior	HIS 337 or HIS 381 or HIS 382	PSC 334 URS Elective
Senior	ECO 311 or ECO 312 or ECO 411	URS 400 URS Elective

Dual Majors

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

Minors

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

Urban Studies Courses: 2013 – 2015

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

Course	Title	Credits
ANT 365	Gender Issues in Language	3
CLAS 207	Myth and Literature	3
COM 204	Interpersonal Communication	3
ENG 211	Science Fiction	3
ENG 223	Images of Women in Literature and Film	3
ENG 224	The Journey in World Literature	3
ENG 230	The Bible as Literature	3
ENG 325	British Women Writers	3
ENG 308	Nineteenth-Century British Literature	3
PHI 240	Justice	3
PHI 273	Race and Philosophy	3
PSY 203	Developmental Psychology	3
PSY 334	Children, Family and Community Psychology	3
RST 322	Women Reading the Bible: Feminist Approaches to Scripture	3
RST 399	Christian Marriage	3
SOC 273	Social Movements and Social Change	3

PRE-LAW

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.
4. Courses in introductory accounting and economics.

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

PRE-MEDICAL AND PRE-HEALTH PROFESSIONS

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*

PRE-MEDICINE

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 MCAT2015 exam:

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

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

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.

Behavioral/Social Science

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.

PRE-DENTAL MEDICINE

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 physiology (BIO 114 and/or 115) either required or recommended.

PRE-OPTOMETRY

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).

PRE-PHARMACY

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.

PRE-VETERINARY MEDICINE

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

Course	Title	Credits
RST 231	Introduction to Catholic Studies (AS VI)	3
CTH 400:	Research in Catholic Studies	3
One course in each of four areas: Catholic Theology and Life; Catholic Culture: Literature, Art, Music & Science; Catholic History & Politics; and Catholic Social Thought & Philosophy – but no more than two courses from any one department in these areas.		12
Total (6 courses)		18

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

Course	Title	Credits
RST 230	Catholic Belief Today (Field 1)	3
RST 350 or HON 327	Christian Concept of God (Field 1)	3
RST 351	Freedom, Sin, and Grace (Field 1)	3

Course	Title	Credits
RST 352	The Church in the Modern World (Field 1)	3
RST 353	Sacramental Theology (Field 1)	3
RST 354	Jesus Christ and Modern Culture (Field 1)	3
RST 359	Revelation and Faith (Field 1)	3
RST 365	Christian Spirituality (Field 1)	3

II. Catholic Culture: Literature, Art, Music and Science

Course	Title	Credits
ENG 233	Medieval Literature (for non-majors) (Field 3)	3
ENG 303	Medieval Literature	3
ENG 320	Contemporary American Catholic Fiction (Field 3)	3
ENG 330	The Bible as Literature (Field 3)	3
FAH 224	Medieval Art (Global)	3
FAH 245	Renaissance Art (Global)	3
FAH 248	Baroque and Rococo Art (Global, Writing)	3
FAM 216	Medieval & Renaissance Music (Global)	3
HON 328	Age of Michelangelo	3
RST 314	New Testament in Literature/Art (Field 1, Global)	3
RST 343	Religion & the Challenge of Science (Field 1)	3

III. Catholic History and Politics

Course	Title	Credits
CLS 308	Pagans & Christians (Field 1)	3
HIS 106	The Medieval World (Field 4, Global)	3
HIS 131	History of Latin America to 1830 (Field 4, Global)	3
HIS 306	History of Religion in America (Field 1)	3
HIS 316	Reformation	3

Course	Title	Credits
HON 356	Jesuit Spirituality and History	3
RST 235	Religion and Politics (Field 1, Justice, Oral)	3
RST 325	Early Christianity (Field 1)	3
RST 328	The Jesuits: History, Spirituality and Culture (Field 1, Oral)	3
RST 329	Religions in North America to 1865 (Field 1)	3
RST 330	Religions in North America 1865-present (Field 1)	3

IV. Catholic Social Thought & Philosophy

Course	Title	Credits
HON 355	Religion's Public Role: Catholic Perspectives	3
PHI 267	Catholic Social Thought (Field 2, Justice)	3
PHI 268	Catholic and Jewish Bioethics (Field 2, Ethics)	3
PHI 302	Medieval Philosophy	3
PHI 367	Advance Topics in Catholic Philosophy	3
PHI 401	Augustine: Images and Transcendence	3
RST 340	Moral Issues Today (Field 1, Ethics)	3
RST 341	Catholic Social Ethics: Theological Perspectives (Field 1, Justice, Writing)	3
RST 342	Theological Ethics and Environmental Justice (Field 1, Ethics, Oral)	3
RST 345	Bio-Moral Problems (Field 1, Ethics)	3
RST 399A	Christian Marriage (Core Capstone)	3

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

Year	Fall Semester	Spring Semester
Freshman	HON 101 English	HON 111 Western Tradition II
	HON 110 Western Tradition I	Foreign Language
	Foreign Language	
Sophomore	1-2 Honors courses	1-2 Honors courses
Junior Junior/Senior	1-2 Honors courses HON 451 (Thesis)	1-2 Honors courses

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 antebellum 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)

CANISIUS CENTER FOR PROFESSIONAL DEVELOPMENT

Stephanie Q. Cattarin, Executive Director;
Blake Carbone, Center Coordinator;
Bryne 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

WOMEN'S BUSINESS CENTER

Executive Director: Melinda Rath Sanderson

Demerly Hall
2365 Main Street
Buffalo NY 14214-2326
716.888.8280
Web: www.canisius.edu/wbc
Email: wbcinfo@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.

ADMINISTRATIVE DIRECTORY

Board of Trustees

Edward Burke Carey '69, Chair
Ben K. Wells, MBA '82, Vice Chair
Erica C. Sammarco '00, Secretary
John J. Hurley '78, ex officio
Larry Aiello, Jr. '71
Teresa M. Amabile, '72, PhD
Rev. Michael G. Boughton, SJ
Joseph J. Castiglia, Emeritus, '55, HON '94
Ann E. Celani '74
Nelson D. Civello '67
John R. Connolly '72
Rev. Joseph S. Costantino, SJ
Rev. Rocco C. Danzi, SJ
Hon. Mary Grace Diehl '74
Michael A. Ervolina, Jr. '79
Lenora B. Foote-Beavers '92
Rev. Brain B. Frain, SJ
Rev. Louis T. Garaventa, SJ
Richard N. Gilbert, Jr. '84, MD
Anthony B. Habib '95
Joseph M. Hassett, '64, PhD
Rev. John F. Libens, SJ
Christine M. Licata-Culhane '67, MS '71, EDD
Alfred F. Luhr, III '68
Rocco J. Maggiotto '72, MBA '79
Joseph D. McDonald
Rev. Joseph M. McShane, SJ
Michael J. Montante '91
Acea M. Mosey, Esq. '92
Kenneth F. Myszka '70
Rev. Leo O'Donovan, SJ
Ronald A. Raccuia '90
James E. Sherwood, '68, PhD
Dennis F. Strigl '74, HON '11
Rev. Michael F. Tunney, SJ
Lawrence J. Vilardo '77, JD
Ann L. Woloszynski '90, MBA '94

Board of Regents

Thomas R. Emmerling '75, Chair
Martin J. Berardi '79, Vice Chair
John P. Belbas, '82 DDS
Kurt C. Bingeman '71
Catherine A. Bolz '85, MBA '90
Jill K. Bond '82, JD
John P. Comerford, Esq.
James F. Dentinger '83, MBA '94
Deborah A. DiMatteo MBA '88
Annette M. Dispenza-Kajtoch '88, MBA '90
James A. Dobmeier '80
Nora E. Eberl Plizga '92
Mark G. Evans '83
Fidelma L. Fitzpatrick '91
Andrew L. Fors
Michael M. Gilbert '90
Amy E. Hoffman '82
Michael P. Hughes '94
John W. Koessler
Rocco Lucente, II '80, JD
William J. Maggio '84, MBA '92
William J. McDermott
James E. McNicholas '68, MEd '97
James B. Nonnengard '82
David L. Noto '76
Mary Perna Greenwald '84, MBA '96
Rebecca R. Reeder
Michael J. Ryan '64, LLB
James J. Rzad '70, MBA '75
Maureen T. Schmitt
Scott L. Sroka '94
Richard C. Suchan '82
Frank E. Swiatek '65
William C. Thuman '73, CFP
Paul V. Vukelic
Daniel J. Zimmer '83, MBA '87
Edward Burke Carey '69, Chair of the Board of Trustees, ex-officio
Dianna Civello, Secretary to the Board of Regents, ex-officio
Terri L. Mangione, PhD, consultant
Mark J. Manuele '92, consultant
Brock Wilkinson, President, USA, consultant
President John J. Hurley '78
Richard A. Wall, '78, PhD, consultant

Administration

John J. Hurley '78, Esq.
President
Erica C. Surbone Sammarco '00
Assistant to the President

Campus Ministry

Michael F. Hayes, Jr. M.A.
Director of Campus Ministry
Rev. Thomas A. Colgan, S.J., M. Div./M.A.
Associate Campus Minister
Rev. James L. Dugan, S.J., M.A./M. Div./S.T.M.
Associate Campus Minister
Luanne C. Firestone, M.A.
Associate Campus Minister
Susan A. Fischer, B.S.
Associate Campus Minister
Jeff Jeckovich
Director of Music
Sarah E. Signorino, M.S.
Associate Campus Minister
J. Joseph Van Volkenburg, M.A.
Assistant to the Director of Campus Ministry

Academic Affairs

Richard A. Wall, Ph.D.*
Vice President for Academic Affairs
Margaret C. McCarthy, Ph.D.*
Interim Associate Vice President for Academic Affairs
Julie Zulewski, M.Ed.
Director, Graduate Admissions
Ellen A. Murphy, M.S.
Associate Director, Graduate Admissions
Donna L. Ortolani, B.S.
Graduate Admissions Counselor
Michael R. George, M.S.*
Director of Enrollment Communication & Technology
Mollie A. Ballaro, M.S.
Director of Undergraduate Admissions
Bridget M. Licata, M.S.
Associate Director, Admissions Marketing
Valerie R. Nugent, M.S.
Sr. Associate Director of Transfer Admissions

Andrew P. Overfield, M.A.
Associate Director of Admissions
Louiza Case, B.A.
Admissions Counselor, Admissions
Phillip B. Ciallela, B.S.
Admissions Counselor, Admissions
Matthew J. Doino, M.S.
Admissions Counselor, Admissions
Mary C. Finger, M.S.
Admissions Counselor, Admissions
Lindsay C. Miller, B.S.
Admissions Counselor, Admissions
William R. Schubring, B.A.
Admissions Counselor, Admissions
Amanda M. Snider, M.S.
Assistant Director, Academic Special Events
Curtis C. Gaume, M.Ed.*
Director, Financial Aid
Mary A. Koehneke, B.S.*
Associate Director, Financial Aid
Sean A. Hudson, M.S.
Assistant Director, Financial Aid
Michele A. Rizzo, B.A.*
Assistant Director, Financial Aid
Blair W. Foster, B.S.*
Associate Vice President for Academic Affairs & Registrar
Deborah W. Whiting-Prohn, B.A.
Associate Registrar
Lilly A. Adams Dudley, M.S.*
Associate Dean, Director of COPE
Christine Dulski Ryan, Ph.D.
Associate Dean, Undergraduate Academic Advising
Nicole M. Scaccia, M.S.
Assistant Director of Student Advising
James V. Jones, M.S.
Director, Career Center
Eileen Abbato, M.S.
Assistant Director, Career Center
Roslyn Joy Colón, M.S.
Director of Internships, Career Center
Rev. Michael F. Tunney, S.J.
Director of Mission & Identity
Sr. Patricia Brady, S.S.M.N.
Director for Community-Based Learning
Patricia A. Coward, Ph.D.
Director of Center for Teaching Excellence

Matthew A. Hertz, Ph.D.
Director of Research & Institutional Effectiveness
Michael W. Tampio, M.B.A.
Institutional Research Senior Analyst
Mary Ann Langlois, M.B.A.
Director of Sponsored Programs

College of Arts and Sciences

David W. Ewing, Ph.D.
Dean
Debra Instone, Ph.D.
Associate Dean and Director for Assessment
Barbara J. Porter, Ph.D.*
Associate Dean for ESL and International Education
Esther A. Northman, M.A.*
Director of International Partnerships and Study Abroad

School of Education and Human Services

Jeffrey R. Lindauer, Ph.D.
Interim Dean
Nancy Wellenzohn, Ph.D.
Associate Dean for Program Quality,
Undergraduate Affairs & Director of Accreditation
Shawn O'Rourke, Ph.D.
Associate Dean, Graduate and Canadian Programs
Director, Sport Administration Program
Nancy V. Wallace, Ph.D.
Director of School and Community Partnerships
Tiffany Fuzak, B.S.
Program Coordinator
Kara M. Schwabel, M.S.
Director of Differentiated Instruction Program
Marjorie Harrington, Ph.D.
Director of Education of Deaf and Hard of
Hearing Program
Sandra Estanek, Ph.D.
Director of College Student Personnel Administration
Program
Mary Shea, Ph.D.
Director of Literacy Program
Timothy Sawicki, Ed.D.
Director of Online Physical Education Program

Rosemary Murray, Ph.D.
Director of Literacy Center
Lisa Murray-Roselli, Ed. M
Director, TESOL program

Richard J. Wehle School of Business

Richard A. Shick, PhD *
Interim Dean
Gregory R. Wood, PhD
Associate Dean
Laura A. McEwen, M.B.A.
Assistant Dean and
Director of Graduate Business Programs
Stephanie Q. Cattarin, M.S.
Executive Director for Center for Professional
Development
Melinda Rath Sanderson, M.B.A.
Executive Director for Women's Business Center

Library

Kristine E. Kasbohm, M.A., M.L.S.
Library Director
Barbara Boehnke, M.L.S., Ph.D.
Associate Library Director
George J. Emery, M.L.S.
Library Digital Services and Project Manager
Jessica M. Blum, M.L.S.
Reference and Instructional Services Librarian
Kathleen M. DeLaney, M.A., M.L.S.
Archivist/Reference Librarian
Matthew K. Kochan, M.L.S.
Public Services Supervisor
Kelly K. Lambert, M.L.S., M.Ed.
Information Literacy Specialist
Jeff M. Proehl, M.L.I.S.
Library Technology Specialist
Lisa M. Sullivan, M.S., M.L.S.
Librarian/Collection and Instructional Services

Information Technology Services

Walter J. Drabek, M.B.A.*
Interim Chief Information Officer
Lawrence J. Deni, M.A.*
Director of Network Services
Daniel J. Drew, M.A.
Director of Media Center
Frank W. Kirstein, M.B.A.*
Director of Computer Infrastructure & Operations
Estelle M. Siener, M.S.
Director of Academic Computing
Michael E. Szymendera*
Associate Director of Network Services
Russell Calianno, B.A.
Web/Application Developer/ITS
Andrew R. Chaplin, B.S.
Systems Administrator
Scott D. Clark, M.S.
Computer Support Specialist
Pamela M. Dart, B.S.
Programmer Analyst
Michele L. Folsom, M.S.*
Programmer Analyst
Grant J. Guzda, B.S.
Programmer Analyst
Mark E. Hammersmith, A.A.S.
Computer Support Specialist
David J. Koenig, B.A.
Computer Support Specialist
Leah MacVie, M.S.
Instructional Designer/ITS
Lisa M. Mastropaolo, B.A.
Computer Support Specialist
Rev. Michael R. Pastizzo, S.J., S.T.D.
User Services Specialist
Thomas M. Prince, B.A.
Computer Support Specialist
Joseph R. Rizzo, M.S., M.T. (A.S.C.P.)
Academic Technology Specialist
Robert E. Schaedel, B.A.*
Programmer Analyst
Marc J. Schnirel, B.A.
Systems Administrator
David A. Shakarjian, B.S.
Programmer Analyst

Tracy A. Wass, M.S.*
Programmer Analyst
Alan D. Weitzsacker, B.S.*
System Administrator

Business and Finance

Marco F. Benedetti, M.B.A., CPA
Vice President for Business and Finance; Treasurer
Ronald J. Haberer, M.B.A.
Interim Controller & Purchasing
Kevin M. Smith, M.B.A.
Bursar
Gary B. Lew, M.B.A.
Senior Facilities Operations Manager
Michael E. Boyd
Associate Director of Facilities Management Mechanical
& Technical Trades Manager
Thomas E. Ciminelli
Director of Facilities Management
Kevin Kwitzer
Building Services Supervisor
Deborah Winslow-Schaber, M.S.
Director of Human Resources
Joseph J. Roetter
Safety Director/Fire Marshal

Institutional Advancement

Dianna Civello, M.A.
Interim Vice President for Institutional Advancement
Sarah E. Graham, M.S.
Assistant Director of Advancement Initiatives
Dennis L. Misko, B.A.
Director, Special Gifts
J. Patrick Greenwald, B.A.*
Director, Principal Gifts
Erin H. Hartnett, M.S.
Director, Canisius Fund
Robert R. Hill, M.A.
Director of Alumni Engagement
Katherine M. Huck, B.S.
Director, Advancement Services
Emma L. Perrott, B.S.
Assistant Director, Canisius Fund
Rachel L. Flammer, B.S.
Assistant Director of Events & Stewardship

Elizabeth M. Tomasulo, M.S.
Director of Advancement Research
Sharon A. Kasperczyk, A.A.S.
Alumni Engagement Officer

Marketing and Communication

Eileen C. Herbert, B.A.*
Director of Public Relations
Audrey R. Browka, B.A.
Assistant Director of Public Relations
Kristen E. Etu, B.A.
Assistant Director of Public Relations
Andalyn M. Courtney, B.F.A.
Director of Creative Services
James R. Neiler, B.F.A.
Senior Art Director
Sarah J. Genau, M.A.
Account Manager
Caroline Barry, M.A.
Copywriter
David H. Courtney, B.A.
Director of Web Services

Student Affairs

Terri L. Mangione, Ph.D.
Interim Vice President for Student Affairs
and Dean of Students
Connie M. Pileri, M.S.*
Director of Campus Programming / Orientation
Matthew H. Mulville, M.S.*
Associate Dean of Students / Director of Residence Life
Albert F. Pilato, M.S.
Associate Director of Residence Life
Kathleen M. Brucato, B.A.
Coordinator of International Student Programs
Mark J. Piatkowski, M.S.
Assistant Director of Residence Life
Gary M. Everett, B.S.*
Director of Public Safety
Brian P. Smith, M.Ed.*
Director of Leadership Development and
Event Management
Michael J. Odojewski, M.S.
Assistant Event Coordinator

Mark D. Dzielski, B.S.
Assistant Event Coordinator
Sababu C. Norris, M.A.*
Director of the ALANA Student Center
Patricia H. Creahan, M.S., A.N.P.C.*
Director of Student Health
Sandra Magnano, R.N.
Assistant Director of Student Health
Eileen A. Niland, M.S., LMHC, NCC*
Director of Counseling Center
Michael Cammarata, M.S., LMHC, N.C.C.
Associate Director of Counseling Center
Alison Smith, MSW
Counseling Center Counselor
Charita Price, M.S., LMHC-P
Counseling Center Counselor
Anne-Marie Dobies, M.S.,
Associate Dean of Students, Director of Student
Academic Support Services
Jennifer Herrmann, M.S.
Associate Director, Disability Support Services
William J. Maher, M.S. Ed.
Director of Athletics
Traci Murphy, M.E.
Associate Athletic Director, Senior Women's Administrator
Toni Lyn Rogers, M.S.
Director of Compliance
John L. Maddock, M.S.*
Associate Director of Athletics for External Affairs
Matthew Reitnour, M.S.
Director of Athletic Communications
Matt Lozar, B.A.
Assistant Director of Athletic Communications
Jason Veniskey, B.S.
Assistant Director of Athletic Communications
Gordon F. Anthony, M.S.
Director of Athletic Facilities
Jonathan Lyons, B.A., M.S.
Assistant Director of Athletic Facilities
Andrew N. Smith, B.S.
Head Athletic Trainer
Jim Baron, M.S.,
Head Coach Men's Basketball
Joel Furtek, B.A.
Head Coach Women's Rowing

Nate Huckle, M.A.
Head Coach Men's and Women's Cross Country

Cathy Hummel, B.A.
Head Coach Volleyball

Todd Hummel, B.S.
Head Coach Golf

Dermot McGrane, M.S.
Head Coach Men's Soccer

Michael McRae, M.Ed.
Head Coach Baseball

Randolph Mearns, M.S.A.
Head Coach Men's Lacrosse

Michael R. Rappl, M.S.*
Head Coach Women's Softball

Dave A. Smith, B.A.
Head Coach Hockey

Scott Teeter, M.S.
Head Coach Women's Lacrosse

Scott Vanderzel, B.A.
Head Coach Men's and Women's Swimming and Diving

James Wendling, B.S.
Head Coach Women's Soccer

Jill Wright, B.A.
Head Coach Synchronized Swimming

Terrence E. Zeh, M.Ed.,
Head Coach Women's Basketball

* Bene Merenti — awarded for 20 years of service to Canisius College.

** Special Bene Merenti — awarded for 40 years of service to Canisius College.

FACULTY DIRECTORY

FULL-TIME FACULTY

YANN ABDOURAZAKOU

Assistant Professor of Sport Administration
Bsc., University of La Réunion with University of Quebec at Montreal Canada;
Msc., University of Rouen (France);
Ph.D., University of Rouen.

ANTONE F. ALBER

Professor Emeritus of Information Systems
B.A., Lehigh University;
M.B.A., University of Pittsburgh;
Ph.D., The Pennsylvania State University.

METOD ALIF*

Associate Professor of Mathematics & Statistics
B.S., University of Ljubljana;
M.S., University of Zagreb (Yugoslavia);
Ph.D., University of Georgia.

EILEEN M. ANGELINI

Professor of Modern Languages
B.A., Middlebury College;
M.A., Ph.D., Brown University.

STANLEY ARBEIT*

Professor Emeritus
B.S., Syracuse University;
M.B.A., Ph.D., State University of New York at Buffalo.

SUSAN M. ARONICA

Associate Professor of Biology
B.S., Cornell University;
M.S., Ph.D., University of Illinois.

M. FERNANDA ASTIZ

Associate Professor of Adolescence Education
B.A., University of Buenos Aires, Argentina;
M.A., Ph.D., Penn State University.

NANCY M. BAILEY

Assistant Professor of Education
B.A., William Smith;
M.A., University of Illinois Champaign-Urbana;
M.S.Ed., Nazareth;
Ph.D., State University of New York at Buffalo.

RICHARD BAILEY

Assistant Professor of History
B.A., University of Mobile;
M.Div., The Southern Baptist Theological Seminary;
Ph.D., University of Kentucky.

THOMAS M. BANCHICH*

Professor of Classics & History
B.A., M.A., Bowling Green State University;
Ph.D., State University of New York at Buffalo.

DEWEY J. BAYER**

Professor of Psychology
A.B., A.M., Xavier University;
Ph.D., University of Arkansas.

BARRY BERLIN*

Professor Emeritus
B.S., University of Illinois;
M.S., Syracuse University;
Ph.D., State University of New York at Buffalo.

KHALID W. BIBI*

Professor of Kinesiology
B.S., University of Illinois;
M.S., Northeastern University;
Ph.D., University of Connecticut.

JOSEPH F. BIERON*

Professor Emeritus
B.S., M.S., Canisius College;
Ph.D., State University of New York at Buffalo.

H. JAMES BIRX*

Professor of Sociology, Anthropology & Criminal Justice
B.S.Ed., M.S.Ed., State University College at Geneseo;
A.M., Ph.D., State University of New York at Buffalo.

TERRENCE P. BISSON*

Professor of Mathematics & Statistics
B.A., University of Chicago;
M.A., Ph.D., Duke University.

ROBERT BODE

Post Doctoral Fellow/Biology
B.S., Hope College;
Ph.D., Cornell University.

PETER BÖHM

Associate Professor of Modern Languages
M.A., Dr. phil., University of Würzburg (Germany).

GEORGE BOGER*

Professor Emeritus
B.A., M.A., Ph.D., State University of New York at Buffalo.

EMMA D. BOJINOVA

Assistant Professor of Economics & Finance
B.S., M.S., University of National and World Economy, Sofia,
Bulgaria;
M.S., University of Kentucky;
Ph.D., University of Kentucky.

DONALD I. BOSSHARDT*

Associate Professor of Economics & Finance
B.B.A., Ph.D., University of Wisconsin.

MICHAEL J. BRAUNSCHEIDEL

Assistant Professor of Management
B.M., University of Detroit;
M.B.A., Canisius College;
Ph.D., State University of New York at Buffalo.

DEBRA T. BURHANS

Associate Professor of Computer Science (Bioinformatics)
B.S., University of Michigan;
M.S., Ph.D., State University of New York at Buffalo.

KEITH R. BURICH*

Professor of History
B.A., Ohio Wesleyan University;
M.A., Ph.D., University of North Carolina – Chapel Hill.

BARBARA A. BURNS

Associate Professor of Education
B.A., Molloy College;
M.Ed., Ph.D., State University of New York at Buffalo.

ROBERT J. BUTLER**

Professor of English
A.B., St. Michael's College (Vermont);
A.M., Ph.D., University of Notre Dame.

NICKI M. CALABRESE

Associate Professor of Education
B.S., State University College at Buffalo;
Ph.D., State University of New York at Buffalo.

RITA A. CAPEZZI

Associate Professor of English
B.A., Chatham College;
M.A., Ph.D., University of Pittsburgh.

LTC WILLIAM CARR

Professor of Military Science
B.A., Texas A&M;
M.B.A., City University of Seattle;
M.S., Kansas State University.

JANE G. CARY*

Professor of Fine Arts
B.M., Syracuse University;
M.M., Eastman School of Music.

THOMAS J. CAULFIELD*

Professor Emeritus
B.S., M.S.Ed., Canisius College;
Ed.D., State University of New York at Buffalo.

LAUREN K. CAVANAUGH

Assistant Professor of Kinesiology
B.K.in.H., Acadia University;
M.S., M.A.T., Ph.D., Texas Woman's University.

STEPHEN A. CHANDERBHAN

Assistant Professor of Philosophy
B.A., The College of William and Mary;
Ph.D., St. Louis University.

SAI CHIDAMBARAM*

Professor Emeritus
B.S., Madras University;
M.S., Annamalai University, India;
Ph.D., University of Wisconsin.

PATRICIA B. CHRISTIAN*

Associate Professor of Sociology, Anthropology & Criminal
Justice
A.B., Wellesley College;
A.M., Ph.D., Brown University.

RAYMOND J. CLOUGH*

Professor Emeritus
A.B., College of the Holy Cross;
A.M., The Catholic University of America;
Ph.D., State University of New York at Buffalo.

HAMILTON E. COCHRANE*

Professor of English
B.A., College of St. Thomas;
Ph.D., University of Minnesota.

SANDRA P. COOKSON*

Professor of English
B.A., M.A., Ph.D., University of Connecticut.

DAVID R. COSTELLO*

Professor Emeritus
B.A. Notre Dame;
M.A., Ph.D., University of Virginia.

KATIE S. COSTANZO

Assistant Professor of Biology
B.S., State University of New York at Oswego;
M.S., Illinois State University;
Ph.D., University at Buffalo.

JOHN S. DAHLBERG

Professor of Communication Studies
B.A., M.A., State University College at Fredonia;
Ph.D., State University of New York at Buffalo.

JACK P. D'AMICO*

Professor Emeritus
B.A., Ph.D., State University of New York at Buffalo.

ROBERT R. DAVIS**

Associate Professor of Accounting
B.S., Canisius College;
A.M., Ohio State University;
C.P.A., State of New York;
Ph.D., State University of New York at Buffalo.

RENE A. DE LA PEDRAJA*

Professor of History
B.A., University of Houston;
M.A., Ph.D., University of Chicago.

BETSY M. DELLEBOVI*

Associate Professor of Adolescence Education
B.A., M.A., Ph.D., State University of New York at Buffalo.

DANIEL F. DEMPSEY**

Professor Emeritus
B.S., Canisius College;
Ph.D., University of Notre Dame.

JENNIFER A. DESIDERIO

Associate Professor of English
B.A., Marquette University;
M.A., Ph.D., The Ohio State University.

DAVID R. DEVEREUX

Associate Professor of History
B.A., University of Western Ontario;
M.A., Dalhousie University;
Ph.D., University of London.

LORREINE K. DICAMILLO

Assistant Professor of Adolescence Education
B.A., University of Notre Dame;
M.A., Ed.D., University of San Francisco.

JONATHAN M. DICICCO

Assistant Professor of Political Science
B.A., Drew University;
Ph.D., Rutgers University.

BRUCE J. DIERENFIELD*

Professor of History
B.A., St. Olaf College;
M.A., Ph.D., University of Virginia.

DAVID B. DIETZ**

Professor Emeritus
A.B., Canisius College;
A.M., Ph.D., Fordham University.

FRANK J. DINAN**

Professor Emeritus
A.B., Ph.D., State University of New York at Buffalo.

MARIANNE DJUTH*

Professor of Philosophy
B.A., Duquesne University;
M.A., Ph.D., University of Toronto.

JAMES C. DOLAN*

Professor Emeritus
A.B., A.M., Canisius College;
Ph.D., University of Illinois.

MICHAEL G. DOLAN

Professor of Kinesiology
B.S., Canisius College;
M.A., University of North Carolina;
A.T.C., National Athletic Trainers Association.

PAUL M. DOWLING**

Professor Emeritus
A.B., Assumption College;
A.M., St. Louis University;
Ph.D., Indiana University.

ALAN I. DUCHAN*

Professor Emeritus
B.S., Carnegie-Mellon University;
M.B.A., Case-Western Reserve University;
M.A., Ph.D., University of Wisconsin.

DENNIS C. DULING*

Professor Emeritus
A.B., College of Wooster (Ohio);
B.D., McCormick Theological Seminary (Chicago);
M.A., Goethe Institute (Germany);
A.M., Ph.D., University of Chicago.

MARTHA L. DUNKELMAN

Professor Emerita
B.A., Wellesley College;
M.A., Ph.D., New York University.

BENJAMIN J. DUNKLE

Associate Professor of Communication Studies
B.F.A., State University of New York at Purchase;
M.F.A., State University of New York at Buffalo.

REV. EDWARD T. DUNN, S.J.**

Professor Emeritus
A.B., A.M., Ph.L., S.T.L., Woodstock College;
A.M., Canisius College;
Ph.D., University of Rochester.

KAREN M. DUTT-DONER

Professor of Adolescence Education
B.S., State University of New York at Geneseo;
M.S., Fordham University;
Ph.D., Syracuse University.

PATRICIA E. ERICKSON

Professor of Sociology, Anthropology & Criminal Justice
B.A., State University of New York at Buffalo;
M.A., Ph.D., University of Denver;
J.D., State University of New York at Buffalo, College of Law.

RICHARD H. ESCOBALES, JR**

Professor of Mathematics & Statistics
A.B., St. Peter's College;
M.S., Ph.D., University of Notre Dame.

SANDRA M. ESTANEK

Professor of Graduate Education & Leadership
B.A., Ohio Dominican College;
M.A., Ohio University;
Ph.D., Union Institute and University.

SARA E. EVANS

Assistant Professor of Chemistry & Bio-Chemistry
B.S., State University of New York at Geneseo;
Ph.D., University of Maryland.

PAOLA C. FAJARDO HEYWARD

Assistant Professor of Political Science
B.A., Universidad Nacional de Colombia;
M.A., Ph.D., State University of New York at Binghamton.

RICHARD K. FALKENSTEIN*

Associate Professor of Fine Arts
B.F.A., M.A., Ph.D., State University of New York at Buffalo.

DANIEL C. FALKOWSKI

Professor Emeritus
B.A., Kent State University;
Ph.D., New York University.

ALEXANDER FARKASH*

Professor Emeritus
B.S., St. Louis University;
M.S., Columbia University;
Ph.D., University of Minnesota.

DAVID L. FARRUGIA*

Professor of Counseling & Human Services
B.A., M.S., Canisius College;
Ed.D., Northern Illinois University.

JANET M. FERGUSON*

Professor of Adolescence Education
B.A., M.Ed., Salem State College;
Ed.D., Boston University.

HOLLY FETTER

Associate Professor of Counseling and Human Services
B.S., Washington State University;
M.S., Portland State University;
Ph.D., University of New Orleans.

KRISTIN E. FINN

Professor of Adolescence Education
B.A., Canisius College;
M.A., Ph.D., State University of New York at Buffalo.

LYNN A. FISH*

Professor of Management
B.S., M.A., M.B.A., Ph.D., State University of New York at Buffalo.

JANE E. FISHER*

Associate Professor of English
B.A., Boston University;
M.A., Ph.D., Cornell University.

MICHAEL J. FOREST

Associate Professor of Philosophy
B.A., University of Detroit;
M.A., Ph.D., Marquette University.

S. CATHERINE FOSTER

Assistant Professor of Communication Studies
B.S., M.S., University of Tennessee at Knoxville;
M.B.A., Lewis University.

PETER J. GALIE*

Professor Emeritus
B.S., A.M., Villanova University;
Ph.D., University of Pittsburgh.

MARK K. GALLIMORE

Visiting Assistant Professor of History
B.A., West Virginia University;
M.A., Ph.D., Lehigh University.

ERIC L. GANSWORTH

Professor of English
B.A., M.A., State University College at Buffalo.

REV. JOSEPH GARIOLO*

Professor Emeritus
B.A. in Ed., Collegio San Jose (Buenos Aires, Argentina);
M.A., State University of La Plata (Argentina);
Ph.D., State University of New York at Buffalo.

EDWARD J. GARRITY*

Professor of Marketing & Information Systems
B.A., State University College at Plattsburgh;
M.B.A., Ph.D., State University of New York at Buffalo.

MICHAEL J. GENT*

Professor Emeritus
A.B., St. Mary's University (Texas);
M.S., Ph.D., Texas Christian University.

GUY H. GESSNER*

Associate Professor of Marketing & Information Systems
B.S., M.B.A., Ph.D., State University of New York at Buffalo.

JULIE S. GIBERT*

Associate Professor of History
A.B., Davidson College;
M.A., Ph.D., University of North Carolina.

DONALD F. GIROD*

Professor Emeritus
A.B., Carleton College;
M.A., Ph.D., University of Rochester.

JOSEPH G. GLYNN*

Professor Emeritus
A.B., M.B.A., University of Rhode Island;
Ph.D., Ohio State University.

JAMES C. GOLDSTEIN

Assistant Professor of Accounting
B.S., Binghamton University;
M.B.A., New York University;
Ph.D., Syracuse University.

CHARLES A. GOODSELL

Assistant Professor of Psychology
B.S., State University of New York at Cortland;
M.A., University of Alabama in Huntsville;
Ph.D., University of Oklahoma.

MARYA GRANDE

Associate Professor of Education
B.S., State University of New York at Geneseo;
M.S. Ed, Canisius College;
Ph.D., State University of New York at Buffalo.

ROBERT J. GREBENOK

Professor of Biology
B.S., Ph.D., Michigan Technological University.

RACHEL L. GREENBERG

Assistant Professor of English
B.A., Brandeis University;
M.A., State University of New York at Buffalo;
Ph.D., State University of New York at Buffalo.

DAVID J. GREENMAN*

Professor Emeritus
B.S., Canisius College;
A.M., Ph.D., Indiana University.

TIMOTHY M. GREGG

Associate Professor of Chemistry & Biochemistry
A.B., Brown University;
Ph.D., University of Arizona.

JEAN A. GREGOREK

Assistant Professor of English
B.A., Ohio State University;
M.A., The University of York;
Ph.D., Ohio State University.

ROBERTO M. GREGORIUS

Associate Professor of Adolescence Education
B.S., Anteneo de Manila (Philippines);
Ph.D., University of Massachusetts.

EDWARD J. GRESS*

Professor of Accounting
B.B.A., M.B.A., American University of Beirut;
Ph.D., University of Arizona.

ROBERT HAGSPIEL

Professor Emeritus
A.B., Ph.D., University of Innsbruck.

ELLEN M. HAMM

Associate Professor Education
B.S., M.S., D'Youville College;
Ph.D., State University of New York at Buffalo.

BARBARA A. HANSON*

Associate Professor of Biology
B.S., Stanford University;
M.S., Ph.D., University of California at San Diego.

KEVIN R. HARDWICK*

Associate Professor of Political Science
B.A., M.A., Ph.D., State University of New York at
Binghamton.

KELLY A. HARPER

Associate Professor of Education
B.S., St. Bonaventure University;
M.Ed., University of Hartford;
Ph.D., Boston College.

MARJORIE L. HARRINGTON

Associate Professor of Graduate Education & Leadership
B.A., Hillsdale College;
M.Ed., Smith College;
Ph.D., University of Pittsburgh.

ROSANNE L. HARTMAN

Professor of Communication Studies
B.A., M.A., Ph.D., State University of New York at Buffalo.

MICHAEL V. HASELSWERDT*

Professor of Political Science
A.B., University of California at Davis;
A.M., Ph.D., Michigan State University.

REV. ROBERT A. HAUS, S.J.**

Professor Emeritus
A.B., A.M., Boston College;
Ph.L., Weston College;
S.T.L., Woodstock College;
M.S., University of Notre Dame.

DEVONYA N. HAVIS

Assistant Professor of Philosophy
B.A., Williams College;
Ph.D., Boston College.

JULIE J. HENRY

Professor of Education
B.A., Cornell University;
M.Ed., Ph.D., State University of New York a Buffalo.

MATTHEW A. HERTZ

Associate Professor of Computer Science
B.A., Carleton College;
M.S., Ph.D., University of Massachusetts Amherst.

MARK HODIN

Professor of English
B.A., Colby College;
Ph.D., University of Wisconsin-Madison.

ELIZABETH A. HOGAN

Associate Professor of Biology
B.S., Siena College;
Ph.D., State University of New York at Albany.

W. J. HOWELL, JR.*

Professor Emeritus
A.B., St. Lawrence University;
M.S., Ph.D., Syracuse University.

JAMES G. HUARD*

Professor of Mathematics & Statistics
B.A., University of Maine (Orono);
M.S., Yale University;
Ph.D., Pennsylvania State University.

PATRICIA A. HUTTON*

Professor of Economics & Finance
B.S.A., University of Manitoba;
Ph.D., University of Wisconsin.

WILMA A. IGGERS*

Professor Emerita
A.B., McMaster University;
A.M., Ph.D., University of Chicago.

BARBARA J. IRWIN*

Professor of Communication Studies
B.A., M.A., Ph.D., State University of New York at Buffalo.

GENEVIEVE L. JAMES*

Professor Emerita
Licentiate in Law, Diploma in Chinese, University of Paris;
M.A., Ph.D., State University of New York at Buffalo.

REV. DANIEL P. JAMROS, S.J.*

Professor of Religious Studies
B.A., Holy Cross College;
M.A., Boston College;
M.T., Centre-Sèvres Seminary (Paris);
Ph.D., Vanderbilt University.

WILLIAM H. JARRETT*

Professor Emeritus
B.S., A.M., St. Louis University;
Ph.D., Michigan State University.

PATRICIA A. JOHNSON

Assistant Professor of Accounting
B.B.A., St. Bonaventure;
M.B.A., State University of New York at Buffalo;
C.P.A., State of New York.

LARRY E. JONES**

Professor of History
A.B., A.M., University of Kansas;
Ph.D., University of Wisconsin.

REV. LADISLAUS F. JUHASZ, S.J.*

Professor Emeritus
A.B., Jesuit College (Szeged, Hungary);
S.T.L., University of Louvain;
Ph.L., Ph.D., Gregorian University.

BYUNG-JAY KAHNG

Assistant Professor of Mathematics & Statistics
B.S., Seoul National University (Korea);
Ph.D., University of California at Berkeley.

ROBERT L. KAISER

Assistant Professor of Communication Studies
B.A., University of Kentucky;
M.A., Spalding University.

JOHN E. KELLY* *

Professor Emeritus
A.B., University of Toronto;
A.M., Ph.D., The Catholic University of America.

GEORGE F. KERMIS, III*

Associate Professor of Accounting
B.S., Canisius College;
M.B.A., Ph.D., Syracuse University;
C.P.A., State of New York.

MARGUERITE D. KERMIS*

Professor of Psychology
A.B., Canisius College;
A.M., Ph.D., Syracuse University.

LEONID A. KHINKIS*

Professor of Mathematics & Statistics
M.S., Chernovtsy State University (U.S.S.R.);
M.S., Ukrainian Independent Institute of Management and
Business;
Ph.D., Voronezh State University (U.S.S.R.).

JI-HEE KIM

Associate Professor of Management
B.A., M.A., Ph.D., Ewha Women's University Seoul (Korea).

CORINNE M. KINDZIERSKI

Associate Professor of Education
B.S., Daemen College;
M.S., Buffalo State College;
Ph.D., State University of New York at Buffalo.

L. CHRISTINE KINSEY*

Professor of Mathematics & Statistics
B.S., M.A., Ph.D., University of Maryland.

EDWARD C. KISAILUS*

Professor of Biology
B.S., King's College (Pa.);
Ph.D., Columbia University.

JACKY KNOPP, JR.

Professor Emeritus
B.S., M.B.A., Ph.D., State University of New York at Buffalo.

DENNIS W. KOCH

Associate Professor of Kinesiology
B.S., Canisius College;
Ph.D., A.B.D., Pennsylvania State University.

PETER M. KOEHNEKE*

Professor of Kinesiology
B.S., M.S., Indiana State University;
A.T.C., National Athletic Trainers Association.

MARIUSZ M. KOZIK*

Professor of Chemistry & Biochemistry
M.Sc., Jagiellonian University (Poland);
Ph.D., Georgetown University.

KARL F. KOZLOWSKI

Assistant Professor of Kinesiology
B.S., Ed.M., Ph.D., State University of New York at Buffalo.

REBECCA KRAWIEC

Associate Professor of Religious Studies & Theology
A.B., Brown University;
M.A., M. Phil, Ph.D., Yale University.

DIETRICH W. KUHLMANN*

Associate Professor of Mathematics & Statistics
B.S., Illinois College;
M.S., Ph.D., University of Missouri.

JUDITH E. LARKIN*

Professor of Psychology
A.B., Vassar College;
M.A., Ph.D., Columbia University.

REV. FRANK LAROCCA, S.J.

Assistant Professor of Management
B.A., University of Pennsylvania;
M.A., Fordham University;
M.Div., Jesuit School of Theology;
M.B.A., Georgetown University;
J.D., Boston College.

DAVID A. LAUERMAN*

Professor Emeritus
B.S., A.M., University of Notre Dame;
Ph.D., Indiana University.

JAMES C. LAUFFENBURGER**

Professor Emeritus
B.S., Canisius College;
Ph.D., University of Notre Dame.

GEORGE J. LAVERE*

Professor Emeritus
A.B., St. Bonaventure University;
Ph.L., Ph.D., Laval University.

JONATHAN D. LAWRENCE

Associate Professor of Religious Studies & Theology
B.A., Haverford College;
M. Div., Pittsburgh Theological Seminary;
Ph.D., University of Notre Dame.

CHRISTOPHER R. LEE

Associate Professor of Religious Studies
B.A., State University College at Oneonta;
M.A., Ph.D., Syracuse University.

ANN MARIE C. LENHARDT*

Professor of Counseling & Human Services
B.F.A., M.Ed., State University of New York at Buffalo;
Ph.D., University of Pittsburgh.

LARRY LICHTENSTEIN*

Associate Professor of Economics & Finance
B.A., Brooklyn College;
M.A., Ph.D., State University of New York at Binghamton.

JEFFREY R. LINDAUER

Associate Professor of Kinesiology
B.A., Wartburg College;
M.S., University of Wisconsin;
Ph.D., University of New Mexico.

JENNIFER LODI-SMITH

Assistant Professor of Psychology
B.A., M.A., College of William and Mary;
Ph.D., University of Illinois at Urbana-Champaign.

CHRISTOPHER LOPATA

Professor of Education
B.A., State University of New York at Buffalo;
M.S., San Diego State University;
M.S., Ph.D., State University of New York at Albany.

I. JOAN LORCH*

Professor Emerita
B.Sc., University of Birmingham (England);
Ph.D., University of London.

NICOLAS LORGNIER

Assistant Professor of Sport Administration
B.S., M.B.A., Universite du Littoral Cote d'Opale;
Ph.D., Universite Grand Nord.

TANYA M. LOUGHEAD

Associate Professor of Philosophy
B.A., Northwest Missouri State University;
M.A., Ph.D., Catholic University of Leuven.

ROBERT A. LORENZ*

Professor Emeritus
B.S., M.S., Northern Illinois University;
Ph.D., Syracuse University.

REV. PATRICK J. LYNCH, S.J.*

Professor of Religious Studies
B.A., M.A., Fordham University;
M.Div., Woodstock College;
S.T.M., Yale University;
Ph.D., University of Chicago.

STEVEN M. MADDOX

Assistant Professor of History
B.A., Memorial University of Newfoundland;
M.A., Ph.D., University of Toronto.

MICHELE A. MARABLE

Associate Professor of Education
B.S., M.S., Ph.D., State University of New York at Buffalo.

SUSAN W. MARGULIS

Associate Professor of Biology
B.S., Bucknell University;
M.A., University of Colorado;
Ph.D., University of Chicago.

JASON R. MAYBERRY

Assistant Professor of Biology
B.S., M.S., Brigham Young University;
M.S., Ph.D., State University of New York at Buffalo.

MARGARET C. MCCARTHY*

Associate Professor of Education
B.A., State University College at Buffalo;
M.S., Canisius College;
Ph.D., State University of New York at Buffalo.

REV. PAUL J. MCCARTHY, S.J.*

Professor Emeritus
A.B., Spring Hill College;
M.S., College of the Holy Cross;
Ph.D., Clark University;
S.T.L., Woodstock College.

CANDALENE J. MCCOMBS*

Associate Professor of Sociology
B.S., M.A., State University College at Buffalo;
Ph.D., State University of New York at Buffalo.

JEFFREY J. MCCONNELL*

Professor of Computer Science
A.B., Canisius College;
M.S., State University of New York at Buffalo;
Ph.D., Worcester Polytechnic Institute.

JAMES J. MCGOLDRICK*

Professor Emeritus
A.B., Queens College;
Diploma, Heidelberg University;
Ph.D., State University of New York at Buffalo.

JANET MCNALLY

Visiting Assistant Professor of English
B.A., Canisius College;
M.F.A., University of Notre Dame.

DANIEL MCREYNOLDS

Assistant Professor of Fine Arts/Art History
B.A., M.A., University of Colorado;
Ph.D., Princeton University.

GORDON W. MEYER*

Associate Professor of Management
B.A., University of Delaware;
M.O.B., Brigham Young University;
Ph.D., Cornell University.

R. MARK MEYER

Associate Professor of Computer Science
B.S., M.S., Ph.D., University of Nebraska.

DENNIS G. MIKE

Associate Professor of Graduate Education and Leadership
B.S., State University of New York at Brockport;
M.S., C.A.S., Ph.D., State University of New York at Albany.

MATTHEW W. MITCHELL

Associate Professor of Religious Studies & Theology
B.A., University of Saskatchewan;
M.A., Memorial University of Newfoundland;
Ph.D., Temple University.

REV. MARTIN X. MOLESKI, S.J.*

Professor of Religious Studies & Theology
B.A., Boston College;
M.A., Fordham University;
M.Div., S.T.B., Regis College, University of Toronto;
Ph.D., Catholic University of America.

E. CHRISTINE MOLL*

Associate Professor of Counseling & Human Services
B.A., Barry College;
M.S., Canisius College;
Ph.D., Barry University.

STEPHEN C. MOLLOY*

Associate Professor of Management
H.B.A., Wilfrid Laurier University (Ontario);
M.B.A., York University (Ontario);
Ph.D., Indiana University.

LISA M. MOREY

Assistant Professor of Biology
B.S., University of Southern Maine;
Ph.D., University of Massachusetts – Amherst.

SARA R. MORRIS

Professor of Biology
B.S., Presbyterian College;
M.S., Ph.D., Cornell University.

PRZEMYSŁAW J. MOSKAL

Assistant Professor of Communication Studies
B.S., St. Joseph's College;
M.P.S., New York University;
Ph.D., The Leon Schiller National Higher School of Film,
Television and Theatre in Łódź (Poland).

ROSEMARY K. MURRAY

Associate Professor of Graduate Education & Leadership
B.S., State University of New York College at Buffalo;
M.S., Ed.D., State University of New York at Buffalo.

JESSE E. NASH, JR.*

Professor Emeritus
A.B., A.M., State University of New York at Buffalo.

HERBERT J. NELSON*

Professor Emeritus
Ph.B., Ph.L., Gregorian University;
Ph.D., State University of New York at Buffalo.

ROBERT E. NIDA

Associate Professor of Education
B.A., M.A., Wheaton College;
Ph.D., University of North Carolina at Greensboro.

MICHAEL NOONAN*

Professor of Biology
B.S., University of Notre Dame;
M.S., Ph.D., State University of New York at Buffalo.

JOHN D. OCCHIPINTI

Professor of Political Science
B.A., Colgate University;
M.A., Ph.D., University of Maryland at College Park.

EUGENE P. O'CONNOR*

Professor Emeritus
B.S., University of Notre Dame;
J.D., State University of New York at Buffalo.

JOSEPH O'DONNELL

Professor of Accounting
B.B.A., University of Notre Dame;
M.B.A., Ph.D., State University of New York at Buffalo.

JAMES N. OIGARA

Associate Professor of Education
B.Ed., Moi University (Kenya);
M.A., Ed.D., State University of New York at Binghamton.

JAMIE M. O'NEIL

Associate Professor of Communication Studies in Digital
Media Arts
B.F.A., Boston University;
M.F.A., State University of New York at Buffalo.

MARY C. O'SULLIVAN

Professor of Chemistry & Biochemistry
B.Sc., University of Warwick (U.K.);
Ph.D., University of Newcastle upon Tyne (U.K.).

GEORGE M. PALUMBO*

Professor of Economics & Finance
A.B., Hobart College;
A.M., Ph.D., Syracuse University.

CHARLES J. PELITERA*

Assistant Professor of Kinesiology
B.S., M.S. Canisius College;
C.S.C.S., National Strength & Conditioning Association;
Ed.D., ABD, Argosy University.

PHILIP PFAFF*

Professor of Economics & Finance
B.Mgt.E., Rensselaer Polytechnic Institute;
M.A., Fordham University;
Ph.D., Michigan State University.

MICHAEL PIEMONTE

Assistant Professor of Economics & Finance
B.A., Penn State University;
M.B.A., Cornell University.

HARVEY A. PINES**

Professor of Psychology
B.B.A., M.S., City College, City University of New York;
Ph.D., State University of New York at Buffalo.

CAMILLE M. PONTRELLO

Assistant Professor of Education
B.A., St. Francis College;
M.S., St. John's University;
Ph.D., State University of New York at Buffalo.

REV. RICHARD J. POWERS, S.J.

Professor Emeritus
A.B., University of Notre Dame;
A.M., Columbia University;
Ph.L. St.L., Woodstock College.

EFSTRATIOS PRASSIDIS

Professor of Mathematics & Statistics
B.S., Aristotle University of Thessalonika;
Ph.D., University of Notre Dame.

REV. JAMES M. PRIBEK, S.J.

Associate Professor of English
B.S., The University of Wisconsin at Madison;
M.A., Gonzaga University;
M. Div., Th.M., Weston Jesuit School of Theology;
Ph.D., University College Dublin.

SUSAN K. PUTNAM

Professor of Psychology
B.A., Canisius College;
Ph.D., State University of New York at Buffalo.

THOMAS C. REBER*

Associate Professor of English
B.A., University of Toledo;
M.A., Bowling Green State University;
Ph.D., University of Texas.

IAN J. REDPATH*

Professor of Accounting
B.L.S., Hillsdale College;
J.D., University of Detroit;
L.L.M., University of Wisconsin.

PHILIP A. REED

Assistant Professor of Philosophy
B.A., Davidson College;
M.A., Ph.D., University of Notre Dame.

GREGORY K. REEDS*

Associate Professor of Kinesiology
B.P.E., McMaster University;
B.Ed., University of Toronto;
M.H.K., University of Windsor;
Ed.D., State University of New York at Buffalo.

RONALD R. REIBER**

Associate Professor of Economics & Finance
B.S., A.M., State University of New York at Buffalo;
Ph.D., University of Arizona.

FRANK P. RIGA**

Professor Emeritus
A.B., A.M., Ph.D., State University of New York at Buffalo.

RICHARD D. REITSMA

Assistant Professor of Modern Languages
B.A., Grand Valley State University;
M.A., Purdue University;
Ph.D., Washington University.

RONALD M. RIVAS

Associate Professor of Management
B.Sc., Universidad Nacional de Ingenieria, Lima;
M.A., Escuela de Administracion de Negocios, Lima;
Ph.D., University of California, Los Angeles.

ROBERT F. RIZZO*

Professor Emeritus
A.B., A.M., Ph.D., The Catholic University of America;
S.T.L., Gregorian University.

ERIN E. ROBINSON

Associate Professor of Sociology, Anthropology & Criminal
Justice
B.A., State University of New York at Geneseo;
M.A., University of Tennessee;
Ph.D., State University of New York at Buffalo.

CRAIG D. ROGERS

Associate Professor of Economics & Finance
B.S., State University College at Brockport;
M.A., M.B.A., Ph.D., State University of New York at Buffalo.

NANCY J. ROSENBLOOM*

Professor of History
A.B., Smith College;
M.A., University of Michigan;
Ph.D., University of Rochester.

NANCY M. ROURKE

Associate Professor of Religious Studies & Theology
B.A., Union College;
M.Div., Boston University School of Theology;
Ph.D., St. Patrick's Pontifical Institute, Maynooth.

MICHAEL E. RUTTER

Associate Professor of Counseling & Human Services
A.B., (Psychology) Cornell University;
Ph.D., State University of New York at Buffalo.

STANLEY C.W. SALVARY*

Professor Emeritus
B.S., Brooklyn College;
M.B.A., Long Island University;
C.P.A., State of New York;
DABFE; CGFM; Ph.D., New York University.

NEVA E. SANDERS

Associate Professor of Psychology
B.S., M.S., Ph.D., Oklahoma State University.

JOSEPH T. SANDMAN**

Professor Emeritus
B.S., A.M., Canisius College;
Ph.D. Cand., Columbia University;
L.H.D., Canisius College.

PAUL L. SAUER*

Professor of Marketing & Information Systems
B.S.M.E., University of Notre Dame;
M.B.A., Ph.D., Ohio State University.

TIMOTHY M. SAWICKI

Associate Professor of Kinesiology
B.Ed., Brock University;
Ed.D., University of Toronto.

PETER M. SCHABER*

Professor of Chemistry & Biochemistry
B.S., Canisius College;
Ph.D., State University of New York at Buffalo.

KENNETH D. SCHERKOSKE*

Associate Professor of Physics
B.S., M.S., Ph.D., University of Toledo.

CHARLES R. SCHMIDTKE*

Professor Emeritus
B.A., Canisius College;
M.A., Ph.D., Tulane University.

KARL J. SCHROEDER, JR.*

Professor Emeritus
A.B., A.M., State University of New York at Buffalo.

JANICE L. SCHULTZ-ALDRICH*

Professor Emerita
A.B., John Carroll University;
M.A., Ph.D., State University of New York at Buffalo.

ROBERT SELKOWITZ

Assistant Professor of Physics
B.A., State University of New York at Buffalo;
M.A., Ph.D., University of Rochester.

TIMOTHY J. SERVOSS

Assistant Professor of Psychology
B.A., University of Rochester;
M.A., University of South Carolina;
Ph.D., ABD, State University of New York at Buffalo.

CLANCY M. SEYMOUR

Instructor of Kinesiology
B.S., M.S., Canisius College.

GIRISH SHAMBU*

Associate Professor of Management
B.Tech., Indian Institute of Technology (Kharagpur);
Ph.D., State University of New York at Buffalo.

WALTER G. SHARROW**

Professor Emeritus
A.B., University of Buffalo;
Ph.D., University of Rochester.

DAVID F. SHANKS

Assistant Professor of Communication Studies
B.A., Auburn University;
M.A., Texas State University.

MARY E. SHEA

Professor of Graduate Education & Leadership
B.S., Westfield State College (Massachusetts);
M.S., Canisius College;
M.S. State University College of New York at Buffalo;
Ph.D., State University of New York at Buffalo.

H. DAVID SHEETS*

Professor of Physics
B.S., State University College at Fredonia;
Ph.D., State University of New York at Buffalo.

PHILLIP M. SHERIDAN

Assistant Professor of Chemistry & Biochemistry
B.S., Southern Connecticut State at New Haven;
Ph.D., University of Arizona at Tucson.

RICHARD A. SHICK*

Professor of Economics & Finance
B.S., M.B.A., Ph.D., State University of New York at Buffalo.

CORAL R. SNODGRASS*

Professor of Management
B.A., Duquesne University;
M.B.A., Ph.D., University of Pittsburgh.

DAVID J. SNYDER

Associate Professor of Marketing & Information Systems
B.A., Davidson College;
M.B.A., St. Bonaventure University;
Ph.D., University of South Carolina.

KENNETH M. SROKA**

Professor of English
A.B., Canisius College;
A.M., University of Chicago;
Ph.D., University of Wisconsin.

HOWARD STANGER

Associate Professor of Management
B.A., Queens College;
M.A., Rutgers University;
Ph.D., Ohio State University.

RICHARD E. STANTON*

Professor Emeritus
B.S., Niagara University;
M.S., Ph.D., University of Notre Dame.

DANIEL P. STARR**

Professor Emeritus
B.S., Canisius College;
A.M., Ph.D., Rutgers University.

MARGARET K. STEFANKSI

Associate Professor of Modern Languages
M.A., University of Warsaw, Poland;
M.A., Ph.D., State University of New York at Buffalo.

JEREMY L. STEINBACHER

Assistant Professor of Chemistry & Biochemistry
B.A., Franklin and Marshall College;
M.S., Cornell University.

ERIC J. STENCLIK

Assistant Professor of Religious Studies & Theology
B.A., Columbia University;
M.A., Yale University;
Ph.D., University of Toronto.

E. ROGER STEPHENSON**

Professor of English
A.B., A.M., Boston College;
Ph.D., Brown University.

JAMES SYLVIS*

Professor Emeritus
B.S., M.Ed., University of Pittsburgh;
Ed.D., State University of New York at Buffalo.

STEVEN H. SZCZEPANKIEWICZ

Associate Professor of Chemistry & Biochemistry
B.S., Canisius College;
Ph.D., California Institute of Technology.

EDWARD J. SZEWCZAK*

Professor of Marketing & Information Systems
B.A., Haverford College;
M.A., Temple University;
M.S.B.A., Boston University;
Ph.D., University of Pittsburgh.

RICHARD J. THOMPSON*

Professor Emeritus
B.S., Canisius College;
A.M., University of Buffalo;
Ph.D., State University of New York at Buffalo.

MARCUS L. THOMEER

Assistant Professor of Education
B.A., Ph.D., University of Texas at Austin.

JOSEPH A. TOMASULO*

Professor Emeritus
B.S., LeMoyne College;
Ph.L., Fordham University;
B.D., Weston College;
Ph.D., State University of New York at Buffalo.

ANNE MARIE TRYJANKOWSKI

Associate Professor of Education
B.A., M.S., Canisius College;
Ed.D., State University of New York at Buffalo.

RICHARD L. USCHOLD**

Professor Emeritus
B.S., Canisius College;
M.S., University of Notre Dame;
Ph.D., State University of New York at Buffalo.

J. DAVID VALAIK*

Professor Emeritus
A.B., University of Notre Dame;
Ph.D., University of Rochester.

JAMES E. VAN VERTH*

Professor Emeritus
B.S., Xavier University;
M.S., University of Detroit;
Ph.D., Indiana University.

PATRICIA B. VAN VERTH*

Professor Emerita
B.S., St. Louis University;
M.S., Ph.D., State University of New York at Buffalo.

STANLEY L. VODRASKA*

Professor Emeritus
A.B., St. John's University;
A.M., University of Chicago;
Ph.D., University of London.

THOMAS J. VOGEL

Associate Professor of Accounting
B.S., Canisius College;
Ph.D., The Pennsylvania State University.

LINDA A. VOLONINO*

Professor of Marketing & Information Systems
B.S., Mercy College;
M.B.A., Ph.D., State University of New York at Buffalo.

TIMOTHY H. WADKINS

Professor of Religious Studies & Theology
B.A., San Jose State University;
M.Div., Trinity Evangelical Divinity School (Deerfield, IL);
Ph.D., Graduate Theological Union (Berkeley, CA).

RICHARD A. WALL*

Professor of Economics & Finance
B.S., Canisius College;
M.A., Ph.D., State University of New York at Buffalo.

PAUL F. WALDAU

Associate Professor of Anthrozoology
B.A., University of California at Santa Barbara;
J.D., University of California at Los Angeles;
M.A., Stanford University;
Ph.D., University of Oxford.

NANCY V. WALLACE

Associate Professor of Education
B.S., State University of New York at Cortland;
M.A., Ph.D., State University of New York at Buffalo.

CHRISTINE M. WALSH

Assistant Professor of Fine Arts
B.A., M.A., State University of New York at Buffalo.

MELISSA B. WANZER

Professor of Communication Studies
B.A., West Chester University of Pennsylvania;
M.A., Syracuse University;
Ed.D., West Virginia University.

TREVOR L. WATT**

Professor Emeritus
A.B., University of Sydney;
A.M., Mansfield College (Oxford);
B.D., Melbourne College of Divinity;
S.T.M., Ph.D., Union Theological Seminary.
A.B., A.M., University of New Hampshire;
Ph.D., Wayne State University.

GEORGE WENNER

Professor Emeritus
B.S., State University of New York at Buffalo;
Ed.M., Temple University;
C.A.S., Buffalo State College;
Ph.D., State University of New York at Buffalo.

JULIA L. WESCOTT*

Professor of Modern Languages
A.B., M.A., Brown University;
Ph.D., University of Massachusetts.

ANTHONY R. WESTON

Associate Professor of Mathematics & Statistics
B.Sc., University of New England, NSW (Armidale, Australia);
Ph.D., Kent State University.

CHARLES J. WIGLEY, III*

Professor of Communication Studies
A.B., Youngstown State University;
J.D., University of Akron;
Ph.D., Kent State University.

H. JEANETTE WILLERT

Professor Emerita
B.A., West Virginia Institute of Technology;
M.Ed., Ph.D., State University of New York at Buffalo.

KATHRYN F. WILLIAMS

Assistant Professor of Classics
B.A., University of North Carolina at Chapel Hill;
M.A., Ph.D., University of Virginia.

AMY WOLF

Associate Professor of English
B.A., Bowling Green State University;
M.A., Ph.D., University of Massachusetts at Amherst.

GREGORY R. WOOD*

Associate Professor of Marketing & Information Systems
B.A., Oakland University;
Ph.D., State University of New York at Albany.

MICHAEL H. WOOD

Assistant Professor of Physics
B.S., The Catholic University of America;
M.S., Ph.D., University of North Carolina at Chapel Hill.

ANN W. WRIGHT

Professor of Biology
B.S., Evergreen State College;
M.S., Idaho State University;
Ph.D., State University of New York at Buffalo.

MARK YIM

Assistant Professor of Marketing & Information Systems
B.A., Korea University;
M.S., University of Illinois, Urbana-Champaign;
Ph.D., University of Texas at Austin.

PAUL A. YOUNG*

Professor Emeritus
B.S., State University College at Buffalo;
M.S., Canisius College;
Ed.D., University of Georgia.

WILLIAM F. ZAPISEK*

Professor Emeritus
A.B., Utica College of Syracuse;
M.S., Ph.D., University of Connecticut.

MARK P. ZAPOROWSKI*

Professor of Economics & Finance
B.S., State University of New York at Oswego;
M.A., Ph.D., State University of New York at Albany.

JILL ZARAZINSKI

Assistant Professor of Education
B.S., Canisius College;
M.S.Ed., D'Youville College;
Ph.D., State University of New York at Buffalo.

JOHN ZEIS*

Professor of Philosophy
A.B., University of Notre Dame;
M.A., Niagara University;
Ph.D., University of Pennsylvania.

EDWARD J. ZIMMERMANN*

Professor Emeritus
B.S., Ed.M., A.M., Canisius College;
Ph.D., State University of New York at Buffalo.

ADJUNCT FACULTY

College of Arts and Sciences**ROBERT D. ACCURSO**

Adjunct Professor of Fine Arts
B.A., State University of New York at Buffalo.

DENISE M. AKIN

Adjunct Professor of Psychology
B.A., Canisius College;
M.S.W., State University of New York at Buffalo.

SAMUEL O. AKINBAMI

Adjunct Professor of Mathematics
M.A., University of Wisconsin.

ABDULLA HAMOOD AL-JANDARI

Adjunct Professor of Modern Languages
B.A., Robert Morris College;
M.S., D'Youville College.

LANA S. ALHADID-BIBI

Adjunct Professor of Modern Languages
B.A., University of Jordan;
M.S., Canisius College.

DEBORAH L. ANDERSON

Adjunct Professor of Religious Studies and Theology
M.A., Ph.D., State University of New York at Buffalo.

BRUCE B. ANDRIATCH

Adjunct Professor of Communication Studies
B.A., Canisius College.

JEFFREY ANGIEL

Adjunct Professor of Environmental Studies
M.S., State University of New York at Buffalo.

CARMEN J. AQUILA

Adjunct Professor of Fine Arts
M.M., Bowling Green State University.

DAVID ARAGONA

Adjunct Professor of Communication Studies
B.A., M.A., Ph.D., State University of New York at Buffalo.

LISA SAIA AUGUST

Adjunct Professor of Communication Studies
B.A., M.A., Canisius College.

ANSGARIUS AYLWARD

Adjunct Professor of Fine Arts
B.M., New England Conservatory of Music;
M.M., Yale University.

GERALDINE E. BARD

Adjunct Professor of Communication Studies
Ph.D., State University of New York at Buffalo.

RAY BARKER

Adjunct Professor of History
Ph.D., State University of New York at Buffalo.

ELLEN BARNUM

Adjunct Professor of Fine Arts
B.M., Peabody Institute of Music of the John Hopkins
University;
A.D., Longy School of Music.

DANA C. BENNETT

Adjunct Professor of Fine Arts
B.M., State University of New York at Fredonia;
M.M., Ithaca College.

PETER BERGENSTOCK,

Adjunct Professor of English and Sociology, Anthropology
and Criminal Justice
J.D., State University of New York at Buffalo.

EVE BERRY

Adjunct Professor of Communication Studies
B.A., M.A. Indiana University.

PAUL D. BIDDLE

Adjunct Professor of Fine Arts
M.M., State University of New York at Fredonia.

HEATHER BIDE LL

Adjunct Professor of English
M.A., State University of New York at Buffalo.

CHRISTIAN BLUM

Adjunct Professor of English
B.A., Canisius College;
M.A., State University College at Buffalo;
Ph.D., A.B.D., Indiana University of Pennsylvania.

JONATHAN P. BONA

Adjunct Professor of Computer Science.

CHRISTOPHER BUCKMAN

Adjunct Professor of Political Science
M.A., State University of New York at Stony Brook.

CAREN CALAMITA

Adjunct Professor of ESL
B.A., M.Ed., The George Washington University.

KEVIN H. CARTER

Adjunct Professor of Sociology/Anthropology & Criminal Justice
B.A., Canisius College;
J.D., State University of New York at Buffalo.

MARK CASTNER*

Director of the Braun- Ruddick Seismograph Station;
Adjunct Professor of Physics
A.B. Gonzaga University;
M.A., Fordham University.

ROSE MARIE CASTNER*

Adjunct Professor of Mathematics
B.A., Rosary Hill College;
M.A., Fordham University;
M.F.A., University of Minnesota.

CHRISTOS B. CHRISTAKIS

Adjunct Professor of Religious Studies and Theology
Ph.D., Kings College University of London.

MARIA C. CIMATO-CIRULLI

Adjunct Professor of Modern Languages
B.A. Canisius College.

SERGIO CITRINITI

Adjunct Professor of Modern Languages
B.S. State University of New York College at Buffalo;
M.H.A., State University of New York at Buffalo.

JACK CLARKE

Adjunct Professor of Sociology
M.A. DePaul University.

MICHAEL COLQUHOUN

Adjunct Professor of Fine Arts
B.A., M.F.A., Ph.D., State University of New York at Buffalo.

KATHLEEN CONTRINO

Adjunct Professor of Criminal Justice
B.S., M.S., Northeastern University;
J.D., State University of New York at Buffalo.

PAULINE COOK

Adjunct Professor of Physics
B.S., M.S., State University of New York at Buffalo.

BETHANY K. CRAHEN

Adjunct Professor of Biology
B.S., M.A., Canisius College.

MILBURN CROTZER

Adjunct Professor of Mathematics and Statistics
Ph. D., Pennsylvania State University.

JOHN M. CURRAN

Adjunct Professor of Political Science
J.D., State University of New York at Buffalo.

AMANDA DAMIANO

Adjunct Professor of Communication Studies
B.S., Utica College;
M.A., S.I. Newhouse School of Public Communications,
Syracuse University.

PAULA DEANGELIS-STEIN

Adjunct Professor of Communication Studies
M.A., Canisius College.

KATHLEEN DIERENFIELD*

Adjunct Professor of History
B.A., College of St. Catherine;
M.A., Ph.D., University of Virginia.

SHEVAUN E. DONELLI O'CONNELL

Adjunct Professor of English
M.A., State University of New York at Buffalo.

EILEEN F. DUGAN

Adjunct Professor of English
B.A., State University of New York at Buffalo.

JAMES L. DUGAN, S.J.

Adjunct Professor of Philosophy
B.A., Canisius College;
M.A., Boston College;
S.T.M., Woodstock College.

BRYAN ECKENRODE

Adjunct Professor of Fine Arts
B.A., M.M., State University of New York at Buffalo.

ANDREA ESCOBAR-PLAGMAN

Adjunct Professor of Philosophy
B.A., State University of New York at Albany;
M.A., San Francisco State University;
Ph.D., J.D., State University of New York at Buffalo;

DEACON GREGORY L. FEARY

Adjunct Professor of Religious Studies and Theology
M.A., Christ the King Seminary.

DONNA M. FERNANDES

Adjunct Professor of Biology
B.S., Brown University;
M.B.A., Simmons School of Management;
Ph.D., Princeton University.

JOHANNA M. FISHER

Adjunct Professor of English
B.S., State University of New York at Buffalo.

SARAH FORD

Adjunct Professor of Sociology
B.A., Carleton College;
M.A., Ph.D., University of Massachusetts at Amherst.

STUART E. FUCHS

Adjunct Professor of Fine Arts
B.A. State University of New York at Fredonia.

ANGELA B. FULK

Adjunct Professor of Classics
B.A., Northeast Missouri State University (now Truman State University);
M.A., Ph.D., Miami University.

ANGELO S. GAMBINO

Adjunct Professor of Political Science
B.S., Canisius College;
J.D., Notre Dame.

PATRICK J. GANNON*

Adjunct Professor of Biology
B.A., M.A., State University College of New York at Buffalo.

LON GORMLEY

Adjunct Professor of Fine Arts
B.M., Indiana University.

TIM GRAHAM

Adjunct Professor of Communications Studies
B.A., Baldwin-Wallace College.

DARRIN GRIFFIN

Adjunct Professor of Communication Studies
B.S., M.A., University of Texas at Austin.

KEVIN R. GRZYBEK

Adjunct Professor of Biology
B.S., M.S., Canisius College.

LAURA A. HAMMER

Adjunct Professor of Biology
B.S., State University of New York at Buffalo.

MARK E. HAMMER*

Adjunct Professor of English
B.A., Canisius College.

CAROLE J. HARRIS

Adjunct Professor of Fine Arts
B.A., Ph.D., State University of New York at Buffalo.

THERESA C. HAUNGS

Adjunct Professor of Modern Languages
M.S., State University of New York at Buffalo.

ANDREW HEBRANK

Adjunct Professor of Psychology
B.A., Carleton College.

MICHAEL A. HEINTZ

Adjunct Professor of Biology.
D.C., New York Chiropractic College.

NICOLAS HILL

Adjunct Professor of Biology
B.S., M.S.E.D., Canisius College.

JEFFREY A. IRWIN

Adjunct Professor of Communication Studies.

SEAN JOHNSTON

Adjunct Professor of Philosophy.

ROBIN JORDAN

Adjunct Professor of First Year Seminar
B.A., University of Illinois at Champaign-Urbana;
M.F.A., Oregon State University.

MADELEINE S. KAUFMAN*

Adjunct Professor of Fine Arts and Classics
B.A., Ph.D., State University of New York at Buffalo.

ARTHUR T. KEAN

Adjunct Professor of Mathematics and Statistics
M.A., University of Cincinnati.

KATHLEEN KEENAN-TAKAGI

Adjunct Professor of Fine Arts
Ph.D., State University of New York at Buffalo.

JOHN KENNY

Adjunct Professor of English
B.A., University of Notre Dame;
M.S. in Ed., State University College at Buffalo.

MI-AE KIM

Adjunct Professor of Mathematics and Statistics
B.S., M.S., Ph.D, Yonsei University, South Korea.

LINDA L. KLIMOWSKI

Adjunct Professor of Biology
B.S., Daemen College;
M.S., University of Vermont;
Ph.D., State University of New York at Buffalo.

ROBERT A. KLUMP*

Adjunct Professor of Political Science
A.B., Canisius College;
M.A., J.D., State University of New York at Buffalo.

DAVID KOTERAS*

Adjunct Professor of Sociology, Anthropology, and Criminal
Justice
B.A., M.S., State University of New York at Buffalo.

RONALD H. KOTLIK

Adjunct Professor of History
Ph.D., State University of New York at Buffalo.

LYDIA G. LANGER

Adjunct Professor of ESL
B.A., New York University;
M.Ed., State University of New York.

KRISTINA L. LAUN

Adjunct Professor of Fine Arts
B.A., M.A., State University of New York at Buffalo.

JOHN LOESER

Adjunct Professor of Religious Studies
B.A., Canisius College;
M.Div., Methodist Theological School of Ohio.

VICTORIA H, LONG

Adjunct of ESL
B.A., George Washington University;
M.A., American University in Cairo;
M.Ed., George Washington University.

MARTHA E. MALKIEWICZ

Adjunct Professor of Fine Arts
B.M., Indiana University;
M.M., Eastman School of Music.

BRIAN MANNING

Adjunct Professor of Communication Studies and Digital
Media Arts
B.F.A., American InterContinental University.

ROLAND E. MARTIN

Adjunct Professor of Fine Arts
B.A., M.M., State University of New York at Fredonia.

ANNA MATTIX

Adjunct Professor of Fine Arts and Music
B.M., B.M.E., Ithaca College;
M.M. Yale University S.

JAMES J. MAUL

Adjunct Professor of Chemistry
B.A., Canisius College;
Ph. D., Wayne State University.

JANET M. MCNALLY

Adjunct Professor of English
M.F.A., University of Notre Dame.

NEIL MELBROD

Adjunct Professor of Communication Studies
B.A., Canisius College;
M.Ed., SUNY at Buffalo;
M.B.A., Canisius College.

KARIN N. MEYER

Adjunct Professor of Modern Languages
B.A., Wheaton College;
M.A., University of Illinois.

DAVID G. MILLER

Adjunct Professor of Fine Arts
B.A., Pratt Institute of Technology.

R. CAMERON MILLER

Adjunct Professor of Religious Studies and Theology
B.S., Skidmore College;
M.Div., The Episcopal Divinity School.

STACEY MOAR

Adjunct Professor of Political Science
J.D., George Washington University.

SHEILA M. MOESCH

Adjunct Professor of Mathematics
B.A., Mount Saint Mary College;
M.A., State University of New York at Buffalo.

BRIGID N. MORAN

Adjunct Professor of Philosophy
B.A., Canisius College;
M.A., Catholic University of America.

ALPANA MUKHERJEE

Adjunct Professor of Philosophy
Visva-Bharati University, India.

HEIDI HOLT NEGLIA

Adjunct Professor of Fine Arts and Dance.

RABBI PERRY NETTER

Adjunct Professor of Religious Studies
B.A., B.Lit., University of Judaism, Los Angeles;
M.A., Jewish Theological Seminary, New York.

SANDRA OCAMPOS-DAVID

Adjunct Professor of Biology
B.A., Canisius College.

NEIL P. O'DONNELL

Adjunct Professor of Sociology, Anthropology and Criminal
Justice
B.A., Buffalo State College;
M.A., Binghamton University.

THOMAS O'MALLEY

Adjunct Professor of English
B.A., M.A. Canisius College.

DAVEN W. OSKVG

Adjunct Professor of Religious Studies & Theology
B.A., Lycoming College;
M.A., Boston University School of Theology;
M.A., Princeton Theological Seminary.

JESSICA OTTO

Adjunct Professor of Philosophy
M.A., State University of New York at Buffalo.

MARIA C. PABICO

Adjunct Professor of Fine and Studio Arts
B.F.A., Daemen College.

DEAN PAVLAKIS

Adjunct Professor of History
M.A., State University of New York at Buffalo;
M.S., Yale University.

RICHARD PERKINS

Adjunct Professor of Philosophy
B.A., M.A., State University of New York at Buffalo.

JOEL M. POTTER

Adjunct Professor of Philosophy
B.A., Mount Vernon Nazarene University;
M.A., Franciscan University of Steubenville;
Ph.D., State University of New York at Buffalo.

KEVIN N. POWERS

Adjunct Professor of Environmental Studies
B.A., State University of New York at Geneseo;
M.A., Ph.D., Georgetown University.

ELIZABETH REEDS

Adjunct Professor of Fine Arts
B.A., Southwest Missouri State University.

THOMAS J. REIGSTADT

Adjunct Professor of English
Ph.D., State University of New York at Buffalo.

SHANA M. RICHARDSON

Adjunct Professor of English
M.A., B.A., State University of New York at Buffalo.

STEPHANIE RIVERA BERRUZ

Adjunct Professor of Philosophy
M.A., State University of New York at Buffalo.

CECILY RODRIGUEZ

Adjunct Professor of Communication Studies
B.A., Kansas State University;
M.S., Canisius College.

STEPHEN CLARK RUSSELL

Adjunct Professor of Classics
B.A., M.A., Dalhousie University.

LESLIE SALATHÉ

Adjunct Professor of Fine Arts
B.M., University of Hartford;
M.M., University of Connecticut.

JESSICA SALTZBERG

Adjunct Professor of English
B.A., SUNY Geneseo;
B.S., SUNY Brockport;
M.A., Ph.D., University at Buffalo.

DAVID C. SCHIAVONE

Adjunct Professor of Fine Arts
B.M., Berklee School of Music.

KAREN B SCHMID

Adjunct Professor of Fine Arts
B.M., Oberlin Conservatory;
M.M., The Juilliard School.

KURT SCHNEIDERMAN

Adjunct Professor of English
B.A., State University of New York at Buffalo.

EMILY SCHULTZ

Adjunct Professor of Psychology
B.A., University of California Los Angeles;
M.S., Canisius College, University at Buffalo.

JOY A. SCIME

Adjunct Professor of History
Ph.D., State University of New York at Buffalo.

FRANK SCINTA

Adjunct Professor of Fine Arts
B.A., M.F.A., State University of New York at Buffalo.

BRETT SHURTLIFFE

Adjunct Professor of Fine Arts
B.M., Eastman School of Music;
M.M., Duquesne University.

HERON E. SIMMONDS- PRICE

Adjunct Professor of Philosophy
Ph.D, State University of New York at Buffalo.

MATTHEW R. SMITH

Adjunct Professor of Religious Studies
B.A., Canisius College;
M.A., Christ the King Seminary.

SUSAN L. SMITH

Adjunct Professor of Philosophy
B.Sc., McMaster University;
M.A. University of Guelph;
B.Ed., University of Windsor.

ADAM P. TAYLOR

Adjunct Professor of Philosophy
B.A., Missouri Southern State University;
M.A., University of Missouri – St. Louis.

EDWARD F. TAYLOR

Adjunct Professor of English
B.A., University of North Carolina;
M.F.A., Antioch University;
B.S., M.S, Canisius College.

GIOVANNA TESTA

Adjunct Professor of Modern Languages
B.A., M.A., State University of New York at Buffalo.

SUZANNE THOMAS

Adjunct Professor of Fine Arts and Music
B.M., Eastman School of Music.

MICHAEL C. THOMASSON

Adjunct Professor of Communication Studies
M.F.A., Savannah College of Art and Design.

MELISSA R. THORBURN

Adjunct Professor of Fine Arts
B.M., Louisiana State University;
M.M., New England Conservatory of Music.

EUGENE TORPEY

Adjunct Professor of Mathematics
B.A., M.S.Ed., Canisius College.

PERSIS PARSHALL VEHAR

Composer in Residence, Adjunct Professor of Fine Arts
B.M., Ithaca College;
M.M., University of Michigan.

STEPHEN L. VOGEL

Adjunct Professor of Physics
B.S., M.S., University of Notre Dame;
M.S., State University of New York at Buffalo.

CAROL WADDELL-SHEETS

Adjunct Professor of Biology
B.A., M.A., Ph.D., State University of New York at Buffalo.

MICHAEL P. WALSH

Adjunct Professor of Philosophy
Ph.D., State University of New York at Buffalo.

YVONNE K. WIDENOR

Adjunct Professor of Fine Arts
M.A., State University of New York at Buffalo.

KRISTINE WENDT

Adjunct Professor of Fine Arts
B.F.A., Syracuse University;
M.A., State University of New York at Buffalo.

THOMAS A. WOLF

Adjunct Professor of Fine Arts
B.A., Canisius College.

MIRANDA WORKMAN

Adjunct Professor of Animal Behavior, Ecology & Conservation
B.A., Ohio State University.

JAMES WRIGHT, JR.

Adjunct Professor of Fine Arts
B.M., M.M. State University of New York at Fredonia.

MARY LOU T. WYROBEK

Adjunct Professor of Religious Studies and Theology
M.A., Christ the King Seminary.

SR. LORETTA YOUNG, S.S.J.**

Adjunct Professor of Modern Languages
B.S., Mt. St. Joseph College;
M.A., Northwestern University;
M.S., University of California-Northridge.

SR. VIRGINIA YOUNG, S.S.J.**

Adjunct Professor of Modern Languages
B.S., Mt. St. Joseph College;
M.A., Northwestern University.

School of Education and Human Services**LARRY ANDERSON**

Adjunct Professor, Teacher Education
B.Ed., M.Ed., University of Toronto.

DEBORAH BEIS

Adjunct Professor, Education
B.S., M.S., State University College at Buffalo.

THOMAS BRAUN

Adjunct Professor, Kinesiology
B.S., Slippery Rock University;
M.S., State University of New York at Buffalo.

DEBORAH CARLSON

Adjunct Professor, Teacher Education
B.A., Bucknell University;
Ed.M., State University of New York at Buffalo.

KRISTEN DOLAN

Adjunct Professor, Kinesiology
B.S., Canisius College;
M.A. Western Michigan University.

SARA DOLLOFF

Adjunct Professor, Adolescence Teacher Education
B.A., Assumption College;
M.Ed., Canisius College.

KATHLEEN DUST

Adjunct Professor, Teacher Education
B.S., M.S., State University College of New York at Buffalo.

ALAN ERZKUS

Adjunct Professor, Teacher Education
B.S., M.S., State University College of New York at Buffalo.

KURT W. HOLME

Adjunct Professor, Kinesiology
M.S. Ed., Canisius College.

KATHLEEN JACQUES

Adjunct Professor Teacher Education
B.A., M.Ed., Canisius College.

CLARANN JOSEF

Adjunct Professor, Teacher Education
B.A., D'Youville College;
M.S. Ed., Canisius College.

COURTNEY KELLY

Adjunct Professor, Kinesiology
B.S., State University College at Brockport;
M.S. Ed., Canisius College.

JOELLEN KOGUT

Adjunct Professor, Teacher Education
B.S., M.S., Canisius College.

KATHLEEN KREIS

Adjunct Professor, Teacher Education
B.A. D'Youville College;
M.S. Ed, Ph.D., State University of New York at Buffalo.

DEBORAH KRSTOFIK

Adjunct Professor, Teacher Education
B.S., M.S., D'Youville College.

MATTHEW LOZAR

Adjunct Professor, Sport Management
B.S., University of Notre Dame;
M.S., Canisius College.

JONATHAN LYONS

Adjunct Professor, Sport Management
B.A.,M.S., Canisius College.

AMANDA MARTINEZ

Adjunct Professor, Kinesiology
A.S. Niagara County Community College;
B.S. State University College of New York at Brockport;
M.S., Virginia Polytechnic Institute and State University.

JUSTIN MAXWELL

Adjunct Professor, Sport Management
B.S. Utica College;
M.S. Canisius College.

JAMES MOHAN

Adjunct Professor, Kinesiology
B.S., M.S., State University of New York at Buffalo.

THOMAS F. O'MALLEY

Adjunct Professor, Education
B.A., M.A., Canisius College.

ANTHONY R. PRIDGEON

Adjunct Professor, Education
Ph. D., State University of New York at Buffalo.

JOSEPH F. RIZZO

Adjunct Professor, Education and Information Systems
B.S., D'Youville College;
M.S., State University of New York at Buffalo.

RUTH ROBSON

Adjunct Professor, Adolescence Education
B.S., State University of New York at Buffalo;
M.S., State University College of New York At Buffalo.

MAURA RUSTOWICZ

Adjunct Professor, Education
B.S., M.S., State University College at Buffalo.

ESTELLE M. SIENER

Adjunct Professor, Education
B.S., Ohio University;
M.Sc., University of Southampton (England).

PATRICIA SIMONSON

Adjunct Professor, Kinesiology
B.A., Canisius College;
M.S. Adelphi University.

GREGORY STANISZEWSKI

Adjunct Professor, Adolescence Education
B.A., M.S. Ed, Canisius College.

JASON L. STEINITZ

Adjunct Professor, Education
B.A., M.A., Bowling Green State University;
Ph.D., State University of New York at Buffalo.

SCOTT N. TEETER

Adjunct Professor, Education
M.S. Ed., Canisius College.

MARK A. WARNER

Adjunct Professor, Kinesiology
B.S., M.S., Canisius College.

JENNIFER ZEH

Adjunct Professor, Sport Management
B.S. Elmira College;
M.S. Canisius College.

JULIE ZULEWSKI

Adjunct Professor, Teacher Education
B.S., State University College of New York at Buffalo;
M. Ed., State University of New York at Buffalo.

Richard J. Wehle School of Business

JAMES P. CONNOLLY

Adjunct Professor of Marketing & Information Systems.

EILEEN P. GRIFFIN

Adjunct Professor of Marketing & Information Systems
B.S., Eastern New Mexico University;
M.S., Canisius College.

PETER M. HALL

Adjunct Professor of Marketing & Information Systems
B.A., Columbia College;
M.B.A., State University of New York at Buffalo.

GREGORY IVANCIC

Adjunct Professor of Accounting
B.B.A., University of Notre Dame;
J.D., State University of New York at Buffalo.

CATHERINE F. LABERTA

Adjunct Professor of Marketing & Information Systems
B.S., M.S., SUNY College at Buffalo.

JEAN R. LEGROS

Adjunct Professor of Marketing & Information Systems.

MARC F. LOGRASSO

Adjunct Professor of Economics & Finance
B.A., Canisius College;
Ph.D., University at Buffalo, School of Management.

NANCY G. LYNCH

Adjunct Professor of Management
B.A., M.B.A., State University of New York at Buffalo.

RUSSELL J. MATUSZAK

Adjunct Professor of Accounting
B.S., Canisius College;
J.D., State University of New York at Buffalo.

JAMES M. MOORE

Adjunct Professor of Business.

KEVIN M. MURPHY

Adjunct Professor of Accounting
B.S., American University;
J.D., Catholic University.

JOHN E. NAGEL

Adjunct Professor of Economics & Finance.
M.A. Economics, SUNY at Buffalo;
M.B.A., SUNY at Buffalo.

MARK J. NIGRO

Adjunct Professor of Economics & Finance.
B.A., Buffalo State College;
M.B.A., Canisius College.

JAMEL C. PERKINS

Adjunct Professor of Marketing & Information Systems.

ROY R. PIPITONE

Adjunct Professor of Management
A.A.S., State University Ag. & Tech.

ALISON E. ROMANOWSKI

Adjunct Professor of Accounting
B.S., Canisius College;
M.B.A., State University of New York at Buffalo.

GARY P. SMITH

Adjunct Professor of Economics & Finance
B.S., State University of New York at Binghamton;
M.A., State University of New York at Buffalo.

SUDHIR D. SUCHAK

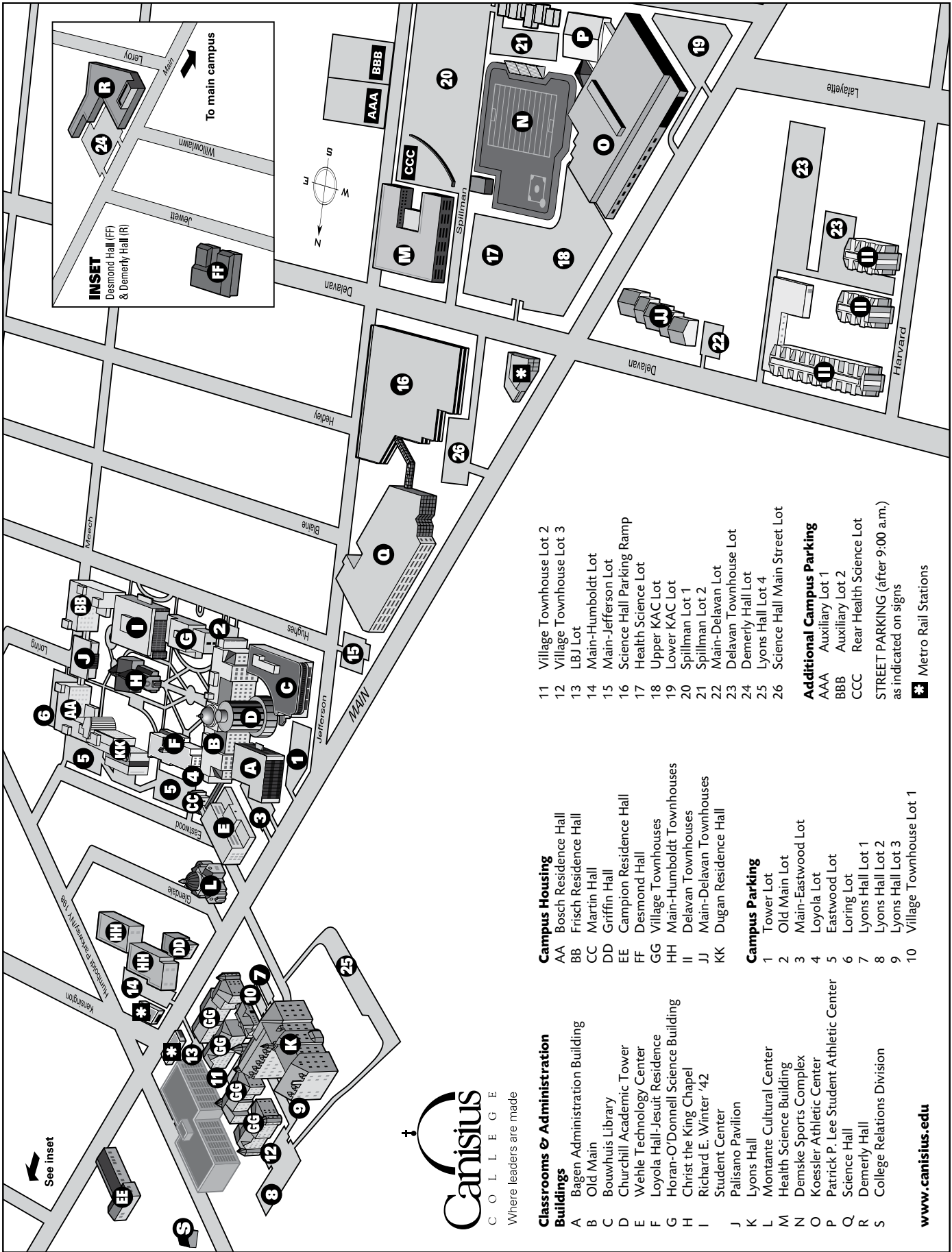
Adjunct Professor of Economics & Finance
B.S., State University of New York at Buffalo;
M.B.A., Canisius College.

ALAN G. WEINSTEIN*

Adjunct Professor of Management
A.B., A.M., University of New Hampshire;
Ph.D., Wayne State University.

* Bene Merenti – awarded for 20 years of service to Canisius College.

** Special Bene Merenti – awarded for 40 years of service to Canisius College.



See inset

To main campus

INSET
Desmond Hall (FF)
& Demery Hall (R)

Canisius
C O L L E G E

Where leaders are made

Classrooms & Administration Buildings

- A Bagen Administration Building
- B Old Main
- C Bouwhuis Library
- D Churchill Academic Tower
- E Wehle Technology Center
- F Loyola Hall-Jesuit Residence
- G Horan-O'Donnell Science Building
- H Christ the King Chapel
- I Richard E. Winter '42 Student Center
- J Palisano Pavilion
- K Lyons Hall
- L Montante Cultural Center
- M Health Science Building
- N Demko Sports Complex
- O Koessler Athletic Center
- P Patrick P. Lee Student Athletic Center
- Q Science Hall
- R Demery Hall
- S College Relations Division

Campus Housing

- AA Bosch Residence Hall
- BB Frisch Residence Hall
- CC Martin Hall
- DD Griffin Hall
- EE Campion Residence Hall
- FF Desmond Hall
- GG Village Townhouses
- HH Main-Humboldt Townhouses
- II Delavan Townhouses
- JJ Main-Delavan Townhouses
- KK Dugan Residence Hall

Campus Parking

- 1 Tower Lot
- 2 Old Main Lot
- 3 Main-Eastwood Lot
- 4 Loyola Lot
- 5 Eastwood Lot
- 6 Loring Lot
- 7 Lyons Hall Lot 1
- 8 Lyons Hall Lot 2
- 9 Lyons Hall Lot 3
- 10 Village Townhouse Lot 1

Additional Campus Parking

- AAA Auxiliary Lot 1
- BBB Auxiliary Lot 2
- CCC Rear Health Science Lot
- STREET PARKING (after 9:00 a.m.) as indicated on signs
- ★ Metro Rail Stations

www.canisius.edu

CANISIUS COLLEGE

2001 Main Street
Buffalo, NY 14202-1098

P: 716.883.7000

F: 716.888.2525

www.canisius.edu

Visitors are cordially welcome at Canisius College. The administrative offices are open Monday through Friday, 8:30 a.m. until 5:00 pm, 4:30 p.m. in summer (except on legal holidays). Members of the college staff are available for interviews at other times by appointments arranged in advance. The main switchboard number of the college is 716.883.7000

Copy for this catalog was prepared as of November 1, 2013. Information is subject to change at the discretion of the college. Please consult the course listings schedule published by the Office of Student Records each fall and spring semester and summer sessions for an accurate update on our course offerings.

PUBLICATION OF THE OFFICE OF ACADEMIC AFFAIRS

Visit us on the World Wide Web at www.canisius.edu

Kelley Rechin, Duffy Moon Design – Catalog Designer

