



ST. LAWRENCE UNIVERSITY

CATALOG 2002–2003

*While studying in Kenya, Courtney Walter '02
photographed this view of Oldonyo Sambu during a
visit to the Tarangire National Park in Tanzania.
Her photograph earned first place in the landscape
category of a campus photography competition.*

Calendar 2002-2003

Summerterm 2002

May

29 Wednesday, Undergraduate Session I begins

June

29 Saturday, Undergraduate Session I ends

July

1 Monday, Undergraduate Session II and Graduate Session I begin

19 Friday, Graduate Session I ends

22 Monday, Graduate Session II begins

August

2 Friday, Undergraduate Session II ends

9 Friday, Graduate Session II ends

Fall Semester 2002

August

21-22 Wednesday-Thursday, New faculty orientation

26 Monday, New student orientation begins

29 Thursday, Classes begin

September

6 Friday, Last day to add a course; last day to drop a course without petition or payment; no refund for course changes after this date

20-22 Friday-Sunday, Laurentian Leadership Weekend

27-29 Friday-Sunday, Family Weekend

October

10-11 Thursday-Friday, Midsemester Break*

21 Monday, Midterm grades due

November

8 Friday, Last day to file a petition to withdraw from a semester course; last day to register for spring semester

22 Friday at 5 p.m.-Sunday, December 1, Thanksgiving Recess*

December

2 Classes resume

13 Friday, Classes end

16-20 Monday-Friday, Final examinations

Spring Semester 2003

January

20 Monday, Classes begin

28 Tuesday, Last day to add a course; last day to drop a course without petition or payment; no refund for course changes after this date

March

7 Friday, Midterm grades due

14-23 Friday at 5 p.m.-Sunday, Spring Break*

April

4 Friday, Last day to register for fall semester; last day to file petition to withdraw from a semester course

May

2 Friday, Classes end

5-10 Monday-Saturday, Final examinations

18 Sunday, Commencement

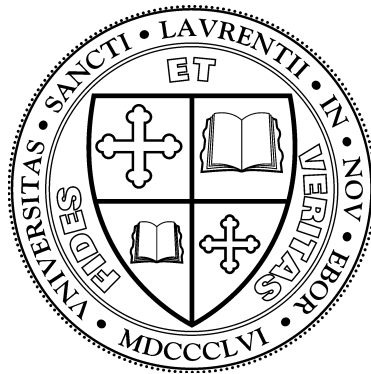
May/June

30-2 Thursday-Sunday, Alumni Reunion Weekend

**Residences are open and meals are available during midsemester break; residences and meals are not available during Thanksgiving recess and spring break*

This calendar is subject to revision by the University.

University Catalog 2002-2003



ST. LAWRENCE
UNIVERSITY
Canton, New York 13617

Inquiries

General Inquiries	315-229-5011	lcania@stlawu.edu
Admissions	315-229-5261 or 1-800-285-1856	admissions@stlawu.edu
Finances	315-229-5896	awells@stlawu.edu
Records and Transcripts	315-229-5267	registrar@stlawu.edu
Financial Aid	315-229-5265	
	or 1-800-355-0863	finaid@stlawu.edu
Summerterm	315-229-5501	skelly@stlawu.edu
Conference or Special Event Arrangements	315-229-5996	roomres@stlawu.edu
World Wide Web	http://www.stlawu.edu	

Visitors

Visitors are welcome at any time. Those who are interested in admissions and in having an interview and/or campus tour should contact the office of admissions at either of the numbers above well in advance of the date of the proposed visit. The office is open Monday through Friday throughout the year, and on most Saturdays. Please refer to this *Catalog's* chapter on admissions regarding the scheduling of appointments. The University Inn, a member of the Best Western chain, is adjacent to campus; its telephone number is 315-386-8522 or 888-386-8522. Admissions personnel can suggest other lodging in the area.

St. Lawrence University Nondiscrimination Policy

All members of the St. Lawrence community are valued equally. We are committed to multicultural diversity in our faculty, staff, student body and curriculum. Awareness training for students, faculty and staff is designed to eliminate all forms of discrimination. St. Lawrence University subscribes fully to all applicable federal and state legislation and regulations (including the Civil Rights Act of 1964; Title IX of the Educational Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; the Americans with Disabilities Act; the Age Discrimination in Employment Act; the Age Discrimination Act of 1975 (ADEA); New York State Human Rights Law; and Part 53, Section 607 of the New York State Educational Law) regarding discrimination, as well as the Drug Free Workplace Act of 1988. The University does not discriminate against students, faculty, staff or other beneficiaries on the basis of race, color, gender, religion, age, disability, marital status, sexual orientation or national or ethnic origin in admission to, or access to, or treatment or employment in its programs and activities. St. Lawrence University is an Affirmative Action/Equal Opportunity Employer. For further information contact St. Lawrence University's Age Act, Title IX, and Section 504 Coordinator, Susan M. Cypert, Special Assistant for Equity Programs, Vilas Hall, St. Lawrence University, Canton NY 13617, 315-229-5584.

*Office of Equity Programs
October 1995, rev. June 2001*

This *Catalog* is for information only and does not constitute a contract; St. Lawrence University reserves the right to change the provisions of this *Catalog*, including course offerings, fees and calendar. The information presented in this *Catalog* is correct as of January 1, 2002.

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About St. Lawrence

St. Lawrence University, chartered by the Legislature of the State of New York on April 3, 1856, is the oldest continuously co-educational institution of higher learning in New York state. Founded as a theological school of the Universalist Church, the University is now nondenominational. St. Lawrence at various times also operated an agricultural school, a law school and a second arts and sciences institution; today, it is firmly committed to undergraduate liberal arts, also offering programs in education at the graduate level. A private, non-sectarian University independent of both church and state, St. Lawrence intends to remain free to determine its own destiny.

St. Lawrence offers courses leading to the bachelor's degree in arts and science and the master's degree in education. The University is accredited by the Middle States Association; documentation can be found in the president's office. St. Lawrence is approved by the American Chemical Society and holds membership in the College Entrance Examination Board, the National Commission on Accrediting, the American Council on Education, the American Association of University Women, the American Association of Colleges for Teacher Education and other national and regional education organizations. A chapter of Phi Beta Kappa, founded in 1899, is among the oldest in the state.

The University's enrollment is approximately 2,000, with nearly an equal number of men and women. Students come from most

U.S. states and from up to two dozen other countries.

Mission Statement

The mission of St. Lawrence University is to provide an inspiring and demanding undergraduate education in the liberal arts to students selected for their seriousness of purpose and intellectual promise.

The Character

St. Lawrence University derives its particular character from a variety of factors relating to the kind of education that it offers, the quality of life that it fosters, its physical facilities and the setting in which they are located. Since its founding in 1856, the University has been committed to undergraduate liberal arts education for men and women. Consequently, the University stresses the importance of the student in all its academic programs. The student may select from a great variety of programs, ranging from the highly to the loosely prescriptive, ensuring that each person is able to pursue that program that will make possible the best development of his or her own potential. To ensure that the academic offerings remain relevant to the needs of the students and sensitive to contemporary developments in higher education and society, faculty and students work together in the continuing reassessment of these programs and the implementation of their innovations.

St. Lawrence students are expected, throughout their college careers and afterward, to confront the question once posed by a distinguished Laurentian, Owen D. Young: *Have you enlarged your knowledge of obligations and your capacity to perform?* While the University is concerned primarily with the continuing intellectual development of its students, it is also concerned with educating them to make the best use of their leisure time during their college years and their future lives. For this purpose the University offers a wide variety of cultural activities and a number of athletic and other recreational facilities.

Balancing the emphasis placed on the individual, there is at St. Lawrence a strong sense of community, which is shared by students, faculty and administrative staff. Several factors contribute to this quality of the University's life, among them its long tradition, its location, its relatively small size and its shared point of view toward liberal arts education. Further, St. Lawrence's coeducational and residential character provides a natural social climate in which the student gains daily experience in dealing and living with others of varying backgrounds.

The region in which the University is located contributes greatly to its particular flavor. In academic affairs, in cultural and recreational pursuits and in social service activities, members of the University community are encouraged to take advantage of the opportunity to explore the ecological, sociological and political problems of the North Country region. The University's rural setting provides an opportunity for all members of the community to develop an awareness of the natural world and their relation and obligations to it. At the same time, the rural location permits living and working in a peaceful atmosphere without the distractions of city living.

It should be stressed, however, that neither the University's sense of community nor its strong attachment to its region is permitted to descend into parochialism. St. Law-

rence enters into relations with other institutions of many kinds, both in this country and abroad, to further its own academic and social aims and to share its advantages with other colleges.

St. Lawrence has a long tradition of preparing its students for varying professions. The University recognizes that there exists in these professions a continuing need for men and women educated in the liberal arts.

Finally, a major source of the University's sense of identity lies in the fact that it is a private, non-sectarian institution. Independent of both church and state, St. Lawrence is, and intends to remain, free to pursue its own destiny in the light of its own vision.

Aims and Objectives

A liberal education requires breadth, depth and integration in learning. It also requires the cultivation of those habits of intellectual and moral self-discipline that distinguish a mature individual. To these ends, St. Lawrence seeks to provide an education that fosters in students an open, inquiring and disciplined mind, well informed through broad exposure to basic areas of knowledge; an enthusiasm for life-long learning; self-confidence and self-knowledge; a respect for differing opinions and for free discussion of those opinions; and an ability to use information logically and to evaluate alternative points of view.

A liberal education frees students from the confines of limited personal experiences and limited knowledge of the physical, historical, social and cultural world. In return, this liberation gives an enlightened understanding of that which is singular, immediate and limited. Thus, a liberal education is always relevant to the world in which students must live at the same time that it attempts to maintain a certain detachment from that world.

A liberal education provides students with many options in the choice of their life's work. Since the very nature of liberal educa-

tion lies in the continuing exercise of a critical and informed intellect, liberally educated persons demonstrate ability in the pursuit of specific occupations and understand and assume the responsibilities of citizenship. These attributes, however, are the consequences, not the purposes, of a liberal education.

Since the primary commitment of the University is to the intellectual development of the student, it encourages styles of learning that promote creativity, intellectual resourcefulness and flexibility. In particular, the University recognizes the need to be responsive to new dimensions of knowledge, to promising new techniques of learning and to the development of individual talents. Hence, St. Lawrence has established curricular objectives that include:

1. A depth of understanding in at least one field of study;
2. The ability to read, write, speak and listen well;
3. The ability to conduct research and to think critically;
4. An understanding of diverse cultures;
5. An understanding of scientific principles and methods;
6. An understanding of the natural environment;
7. An expansion of aesthetic sensibilities and capacities; and
8. A personal ethic of considered values.

The University's long tradition of preparing its students for various professions and its deep respect for excellence in teaching and learning at all levels further commit it to a graduate program in education.

The University is also committed to the goal of fostering excellent teaching in its faculty and to assisting its members to realize their full potential as teachers. Effective teaching cannot be divorced from professional com-

petence in the subject matter taught. Active scholarship is strongly encouraged, and the University commits itself to supporting this scholarship through the provision of time and resources.

A primary commitment to the students' intellectual development is complemented by recognition of students as whole persons living in a culturally diverse world. For this reason, the University also provides an environment that encourages the students' physical well being and provides opportunities for moral, social, religious and aesthetic growth, and encourages an expanding sense of responsibility for and service to humanity.

Affirmative Action

All members of the St. Lawrence University community are valued equally. The office of equity programs/affirmative action is responsible for ensuring that all University activities, programs and practices comply with state and federal laws and regulations regarding equal educational and employment opportunities.

St. Lawrence University is committed to multicultural diversity in its faculty, staff, student body and curriculum. The office of equity programs/affirmative action designs, implements and monitors programs that ensure the attraction and retention of a diverse population. Awareness training for students, faculty and staff is designed to eliminate all forms of discrimination. Students and employees who believe they have been treated unfairly are encouraged to speak confidentially with the associate vice president for human resources/special assistant for equity programs.

Discriminatory Harassment Policy

St. Lawrence University provides for the development of a climate of tolerance and pluralism and prohibits expressive behavior that is intended to be demeaning, intimidating or hostile, communicated verbally, physically or with other communication devices, including telephonic or electronic means. It is expressly against University policy for any employee or student to engage in discriminatory harassment, which is defined as any demeaning, intimidating or hostile verbal, physical or symbolic behavior that is directed at an identifiable individual or group and that is based on that individual's or group's race, religion, ethnicity, age, gender, national origin, disability or sexual orientation, and has the effect of interfering with a reasonable person's academic or work performance or of creating an intimidating or hostile situation or environment. Such behaviors include, but are not limited to, the use of slurs, epithets, gestures, demeaning jokes or derogatory stereotypes.

This policy is not intended to proscribe, and should not limit free discussion of, the merits of any issue relating to ethnic, racial, religious or other multicultural difference or open inquiry into any material or issue relevant to the academic content of a course.

Not all offensive conduct or language that might be derogatory concerning an individual or group necessarily constitutes discriminatory harassment. Whether a specific act does in fact constitute discriminatory harassment must be determined on a case-by-case basis in light of all relevant circumstances.

If you believe you have experienced or are experiencing discriminatory harassment, talk to the person or persons who may be responsible for the problem. If that is not possible, or doesn't work, speak to someone for help or advice.

If you are a student you may speak to your academic advisor, the chairperson of the department, any staff member in student life, particularly residential learning, security, counseling, or the director of multicultural affairs, or to the special assistant for equity programs. If you are an employee, speak with the human resources office, the vice president or dean of that area (academic affairs, administrative operations, admissions and financial aid, business and finance, information technology, student life, University advancement), the equity programs office or the multicultural affairs office. Any citizen may also contact outside authorities to file complaints. External agency rules or procedures internal to St. Lawrence University may obviate a complaint in the event you choose an external route.

The Campus

The St. Lawrence campus combines the appeal of spacious open and wooded areas with the convenience of short distances between buildings. Much of the thousand-acre campus is devoted to open space, a golf course, fields and woods; the 40 principal buildings are clustered in approximately 20 percent of that area, adjacent to the village of Canton.

Major buildings, with date(s) of construction in parentheses:

Owen D. Young Library (1959; renovations in 1980 and 1999) and **Launders Science Library** (1994) in Madill Hall provide access to over 500,000 books, 400,000 government documents and a microform collection of over 571,000 items. The library acquires more than 10,000 volumes annually and maintains a print journal collection of 2,000 subscriptions as well as over 8,500 e-journals available on the campus network. In addition to the online catalog, ODYSseus, the library provides access to the world's scholarship by means of a Web site that connects students to local networked databases as well as to the Internet. The 1998-99 renovation of ODY Library created a new electronic classroom for library instruction, increased seating and additional group study space, expanded capacity for the storage of collections and added public network connections throughout the library. For more information, see the section on the libraries at St. Lawrence in the Curriculum chapter.

Hepburn Hall (1926) is the location of the government and economics departments and the Upward Bound program headquarters. An auditorium is available for use by the University community.

Carnegie Hall (1906) was renovated in 1996 to provide a home for the Patti McGill Peterson Center for International and Intercultural Studies. It also houses the modern languages and literatures department and language laboratories.

Gunnison Memorial Chapel (1926) is the scene of voluntary religious services and ceremonial events. Numerous beautiful stained glass windows grace the building, which is the source of a campus tradition: the playing of its bells every weekday afternoon at 5 o'clock when classes are in session.

Richardson Hall (1856) houses the departments of English and religious studies as well as St. Lawrence's Career Services and Leadership Education Center. The first building on campus, it is included in the National Register of Historic Places.

Herring-Cole Hall (1870 and 1903), originally the library, is a reading and study space and public presentation area. Like Richardson Hall, it is listed on the National Register of Historic Places.

Atwood Hall (1954) houses the department of education, the graduate programs in education and the office of educational placement.

Homer A. Vilas Hall (1965) contains administrative offices such as finance, affirmative action, student life, University advancement, the deans, the president and the registrar.

Griffiths Arts Center (1967) offers complete facilities for the fine arts, music, and speech and theatre departments. The Richard F. Brush Art Gallery and an art storage and preparation area serve the University's 7,000-piece art collection. The **Arts Annex**, across the street from Griffiths, contains studio and informal meeting space.

Edward John Noble University Center (1962) is home to the Northstar Pub, the Underground entertainment area, the Central Mail Room, meeting rooms and student organization offices, the W. Lawrence and Winifred Frazee Gulick Theatre, and the office of security and safety. Portions of it underwent extensive interior renovation in 1998-99. A new student center is scheduled for completion in 2004.

Hulett-Jencks (1954; renovated in 1987), **Dean-Eaton** (1926; renovated in 2000), **Sykes Residence** (1931; renovated in 1981), **Whitman** (1959), **Rebert** (1964) and **Lee** (1970) halls are student residences offering housing in a variety of configurations, including suites in Hulett-Jencks, as well as living units of the First-Year Program and computer laboratories. **Charles A. Dana Dining Center**, which was thoroughly renovated in 1998-99, is attached to Sykes Residence, while **Eben Holden Dining Hall**, used for special functions, occupies a wing of Lee Hall. A take-out snack shop is located in Dean-Eaton, and the St. Lawrence Leadership Academy and Garner Center for Collegiate Volunteerism occupy the Hulett-Jencks commons area.

Other residence units ringing the campus include theme cottages, intentional living communities and Greek chapter houses. For more information, see *Housing in the Student Life* chapter of this *Catalog*.

St. Lawrence's science buildings are connected by enclosed walkways. **Foster S. Brown Hall** (1960) holds the department

of geology's offices, laboratories, classrooms and auditorium. **Flint Hall** (1973) provides offices, laboratories and seminar rooms for the psychology department. **Valentine Hall** (1960) contains the department of mathematics and science classrooms. **Bewkes Science Hall** (1968) devotes one floor each to the departments of biology, chemistry and physics. **Madill Hall** (1941) was thoroughly renovated in 1993-94 to house the J. Harold and Ruth C. Launders Science Library and Computing Center and the division of information technology.

Augsbury Physical Education Center/Leithead Field House (1970) and **Newell Field House** (2001) contain facilities for the University's athletics, intramurals and recreation and fitness programs as well as its sports studies and exercise science academic program. Features of the complex include two gyms, an Olympic-size swimming pool, two indoor running tracks, tartan turf playing area and tennis courts, climbing wall, 133-station fitness center, aerobics room, squash courts, an outdoor lighted jogging track and an outdoor lighted tennis complex. On or near the campus are **Appleton Arena** (1951, renovated 1999), a skating rink available in all seasons; football's **Weeks Field**, surrounded by the nine-lane **Merrick-Pinkard Track** and field events venues and by **Leckonby Stadium** (2000); the all-season, artificial turf **North Country Field** (1999) **MacAllaster Soccer Stadium** (2001); **Elsa Gunnison Appleton Riding Hall** (1966), stables and indoor and outdoor riding grounds, jumping ring, dressage area and proving grounds; an **18-hole golf course** and **Golf Training Center** with driving cages and a computerized simulator; and the **Little River Nature and Recreational Area**. The University's recreation and athletic facilities, both indoor and outdoor, are undergoing a multi-year renovation and expansion that commenced in 1998.

Payson Hall (1909) was renovated in 1993 to provide accommodations for the admissions and financial aid offices.

Frank P. Piskor Hall (1909, 1981) houses the departments of history, philosophy, sociology and anthropology.

Winning Health Center (1960) provides medical services and an infirmary for daytime student use.

Brewer Bookstore offers books, computer accessories, art supplies, stationery, music, gift items and similar accoutrements of college life in a spacious setting complete with two fireplaces and a Caribou Coffee shop.

Memorial Hall (1910; renovated in 1984) is the home of the environmental studies and Canadian studies programs.

MacAllaster House, the president's home, was given to the University in 1927 by distinguished alumnus Owen D. Young. A 1998-99 renovation was made possible by generous gifts from Trustee Archie

F. MacAllaster '50 and Barbara Torrey MacAllaster '51, Trustee David L. Torrey '53 and William A. Torrey Sr. '57. It is the site of numerous public events and receptions.

Noble Medical Building, on Route 11 near the Romoda Drive entrance to campus, has space for several doctors' offices as well as the studios of North Country Public Radio, a National Public Radio affiliate.

The University also maintains two off-campus retreats. **Catamount Lodge**, on a wilderness tract 25 miles south of campus in the Adirondack Park, is a popular spot for student and faculty meetings and conferences in every season. **Canaras Conference Center**, on Upper Saranac Lake about 75 miles from the campus in the heart of the Adirondack Park, provides conference and recreation facilities for University faculty, staff, students, parents and alumni, as well as non-University groups, during the summer.



Curriculum

Degrees Offered

St. Lawrence offers undergraduate Bachelor of Arts and Bachelor of Science degrees.

The degree of Bachelor of Arts is given on the satisfactory completion of programs of study with concentration in the fields of anthropology, African studies (combined major), Asian studies (combined major), Canadian studies (combined major), economics, economics-mathematics (interdisciplinary major), English, environmental studies, fine arts, global studies, government, history, modern languages and literatures, music, philosophy, religious studies, sociology and speech and theatre, or a multi-field program with concentration in two or more of these fields.

The degree of Bachelor of Science is given on the satisfactory completion of programs of study with concentration in the fields of biology, biology-physics (interdisciplinary major), biochemistry, chemistry, computer science, economics-mathematics (interdisciplinary major), geology, geology-physics (interdisciplinary major), mathematics, mathematics-computer science (combined major), neuroscience, physics and psychology, or a multi-field program with concentration in two or more of these fields.

Either the Bachelor of Arts or Bachelor of Science degree may be elected upon satisfactory completion of a double major if one of the majors is appropriate to the degree. A multi-field major may elect either the degree of Bachelor of Arts or Bachelor of Science when

the major consists of two fields and each is appropriate to a different degree.

Inquiries for information concerning the degree of Master of Education should be directed to the chair of the education department.

Distribution and Graduation Requirements

Thirty-three and a half semester course units, including eight to 12 units in a major field and six units in specified distribution areas, all successfully completed, are required for graduation and are ordinarily earned in four academic years.

Also required are a 2.0 cumulative grade point average (GPA) overall and in the major and minor fields, based on St. Lawrence University courses only. The normal course load is four units per semester, except for an additional half unit as required by the First-Year Program during the two semesters of the first year. Each full unit is equivalent to 3.6 semester hours.

To graduate from St. Lawrence a student must complete a number of requirements. All students declare a major at the end of the sophomore year. In addition to the major, students must complete a series of courses designed to provide breadth, called distribution requirements. The distribution requirements vary based on the date of a student's matriculation at St. Lawrence: one set applies to students who matriculate prior to fall 2001; the other to

students who matriculate in fall 2001 or later. Students also must satisfy the First-Year Program requirement and the the writing competency requirement, which are described below.

Distribution Requirements

Prior to Fall 2001

Students matriculating at St. Lawrence prior to fall 2001 must meet the following distribution requirements.

- I. Students must take one course in each of three areas: natural sciences, social sciences and humanities. The course taken in the natural science category must have a laboratory.
- II. Graduation Requirement in Non-Western and Third-World Studies.
Students must complete at least one course dealing with non-Western or third-world topics.
- III. Graduation Requirement in Liberal Arts.
Students must complete at least two courses from the classical liberal arts, with at least one course from two of the following areas: mathematics or symbolic logic, arts or forms of expression and foreign languages.

The registrar maintains a list of courses that fulfill distribution areas. The list is published each semester in the *Class Schedule*. Students may not transfer courses from other institutions for St. Lawrence University distribution credit after the time of their matriculation.

Fall 2001 and Later

Students entering St. Lawrence University in fall 2001 and later must complete the following distribution requirements. These are abbreviated descriptions of the distribution categories; the complete faculty-approved policy statement is filed in the registrar's office.

Arts/Expression. An approved course that provides active learning through creative expression.

Humanities. One course approved as involving the critical interpretation of traditional and contemporary works of literature, history, political thought, philosophy, religious studies and the arts, both visual and performing.

Social Science. An approved course that provides an awareness of how economic, political and social institutions can be organized, evidence about them analyzed and social science knowledge generated.

Mathematics or Foreign Language. An approved course that develops either quantitative reasoning and analytical thought or provides knowledge of a foreign language and understanding of a foreign culture.

Natural Science/Science Studies. Two courses approved as providing a foundation in the natural sciences and the interplay between science and society. One of the two courses must include a laboratory.

Courses meeting the above distribution requirements must include courses from six different departments or programs. A course can meet only one of the above distribution requirements.

Diversity. Two courses from two different departments or programs approved as engaging participants in the critical study of sameness and difference, including diverse social and cultural practices and beliefs, either within or outside the United States. Courses meeting the diversity requirement may also be counted toward other major and minor requirements, but not toward FYP/FYS requirements.

First-Year Program (FYP)/ First-Year Seminar (FYS)

In addition to three other courses drawn from the general curriculum as described in the following pages, students in their first semester enroll in a combined academic and residential program that emphasizes critical thinking and active student participation in both the classroom and the residence. The program consists of four parts:

1. An interdisciplinary, team-taught course illustrative of some of the enduring themes of the human experience.
2. An emphasis on communications skills, in particular, writing, speaking and research.
3. An advising system that ensures systematic and supportive involvement of faculty with students through coursework and out-of-class meetings.
4. A residential college system wherein each first-year residence houses students enrolled in the same section of the team-taught course, with the goal of developing integrated living and learning communities.

In the FYP, first-year students meet with the other students in their residence and several faculty members, including their advisors, on a regular basis and in the context of a broad-based course that focuses on the breadth of the liberal arts and encourages student participation, collaborative intellectual experiences, self-expression and critical thinking.

All first-year students enroll in one of approximately 12 sections of FYP 187. Each section explores a distinct set of themes or issues. In the summer before matriculation, students receive descriptions of these sections and may choose the FYP sections they find most interesting. Each section of the FYP corresponds to a residential college. Each section meets twice a week with a faculty team of two or three; smaller groups within each section meet twice weekly with one of the faculty members, who also serves as the academic advisor to the members of the group.

The residential college faculty also plan co-curricular programs related to the course themes and they encourage students to take advantage of the full schedule of University social and intellectual activities. The residents, the residential staff and the faculty of each teaching team work together to design programs and encourage maximum student involvement in the life of the residential college. In addition to encouraging students to participate in their own colleges, the FYP coordinates a first-year council, made up of student

representatives from each of the colleges. The council provides an opportunity for students to develop leadership skills, participate in University governance, address issues of concern to first-year students and plan social events for the entire first-year class.

In the second semester of the first-year, students continue to develop their research, writing and oral communication skills in one of approximately 36 research seminars. Although they will be guaranteed a space in the course taught by their fall FYP advisor, students may also choose to enroll in a seminar with a different faculty member. In the fall semester, students will be asked to indicate which first-year seminars they find most interesting. At the same time, student life and faculty will continue to work with the residential communities to facilitate both the continued development of these communities and the transition to upperclass residential life. The first-year council also continues to plan events for all first-year students.

Because of the importance of the FYP and FYS in orienting students to St. Lawrence, withdrawal from those courses is not permitted.

Writing Competency Requirement

To be eligible for graduation, all St. Lawrence students must demonstrate throughout their college careers the ability to write prose that is judged competent by their professors.

1. The instructor will indicate on the grade report an unsatisfactory writing (U/W) notation when a student has not shown satisfactory writing skills.
2. When a student acquires two notations of U/W, he or she is required to complete an individualized writing program developed by the Writing Center. Seniors must demonstrate writing competency before receiving their degrees.
3. The notations of U/W are monitored by the registrar and do not appear on student official transcripts.

Residence Requirement

It is a basic requirement that two years (16 units), including at least one semester of the final year before graduation, be taken in residence at St. Lawrence.

Programs of study at other institutions during the senior year must have prior approval from the major advisor and the committee on off-campus study and must be authorized by the dean of academic affairs. Permission to pursue such programs during the final semester and/or summer session before graduation is granted only in extraordinary circumstances.

Fee/Commencement Requirement

No students will be graduated, allowed to participate in the May graduation exercise or receive a transcript of their records if they have not discharged all financial obligations to the University or if they are not present at or formally excused from the graduating exercises at which the degree is to be conferred.

Major Requirements

All students are expected to complete a concentrated field of study referred to as the major. St. Lawrence offers students several options when completing their major requirement: a single departmental major, a double departmental major, a combined major, an interdisciplinary major and a multi-field major. These different types of majors are described below; however, all major programs have three common expectations: (1) students will be accepted by the department(s) in which they will undertake concentrated work during the second semester of their sophomore year; (2) students will elect no fewer than eight semester unit courses in their major field; and (3) no student may be required to take more than 12 units in one department or permitted to take more than 14 units in one department. Related course work for a major may be recommended and/or required. Courses in the student's major field cannot be taken on a pass/fail basis after the major has been declared.

Students' programs in the junior and senior years are arranged in consultation with their advisor(s) and the chair(s) of their major

department(s). Junior students must be accepted to a department for a major program as a condition for spring term registration. Transfer students entering at the junior level should review major requirements at the time of application, and must declare the major no later than the beginning of the second term of attendance.

Change of the major field may be made only with the consent of the chair and the student's advisor for the new major. Forms for this change are available from the director of advising.

Admission to a Major

1. Students will be admitted to a department as majors if they present a 2.0 cumulative average, including a 2.0 average in the major field.
2. Students on probation at the beginning of the junior year should seek admission to a department in which they have a 2.0 average in the major field. These students also have the option of seeking a probationary admission to a major department in which they have below a 2.0 average in the major field. A probationary admission must be approved by the department chair.
3. Students must declare a major in the spring of their sophomore year or file a petition to postpone major declaration with the director of advising.

Continuance in a Major

1. After being accepted by a major department, students must maintain a 2.0 minimum average in the major field to continue as majors. If a student falls below a 2.0 average in the major field, that student and the department will be notified that he or she can no longer continue as a major. The student is also placed on academic probation by the academic standing committee. At that time the student must find acceptance in another department in which he or she has a 2.0 average in that major field. The student also has the option of seeking probationary acceptance by the department

from which he or she was dropped, or by any other department that may grant probationary admission. The department chair must approve a probationary admission. If a student can neither find acceptance in another department nor gain a probationary admission, he or she will be suspended from the University.

2. Students who gain probationary admission to a major department have one semester in which to raise their average in the major field to a 2.0 or above and to remove themselves from academic probation. If, at the end of the probationary semester, a student has not raised his or her average in the major field to a 2.0, the student and the department will be notified that he or she cannot continue as a major. Again, the student must either find acceptance in another department or seek continuance of the probationary admission. The department chair must approve a continuance of a probationary admission. If a student can neither find acceptance in another department nor gain a continuance of a probationary admission, he or she will be suspended from the University.
3. Students who are dropped from a major and/or suspended from the University should consult with the director of advising. Students who are suspended from the University may appeal their suspension to the academic standing committee.

Comprehensive written examinations may be required at the discretion of the major department and may be given prior to the final examination period of the senior year. In such cases, a student must pass the comprehensive examination in the major field to complete the requirements for the major; failure may be removed by a further examination taken at the close of any subsequent term not later than two weeks prior to its close.

At the time of graduation, students must present a 2.0 cumulative average in St. Lawrence courses taken in their major department(s).

Types of Major Programs

Departmental Majors

The fields of study that offer single departmental majors are listed below. In their departmental major field, students elect no fewer than eight and normally no more than 12 semester unit courses. In unusual circumstances a department may permit individual majors to take up to 14 units; no student, however, may be required to take more than 12 or permitted to take more than 14 units in one department. Related course work may be recommended and/or required. A single departmental major may be chosen from one of the following fields:

- Anthropology
- Biology
- Biochemistry
- Chemistry
- Computer Science
- Economics
- English
- Environmental Studies
- Fine Arts
- French
- Geology
- German
- Global Studies
- Government
- History
- Mathematics
- Multi-language
- Music
- Neuroscience
- Philosophy
- Physics
- Psychology
- Religious Studies
- Sociology
- Spanish
- Speech and Theatre

Double, Combined, Interdisciplinary and Multi-field Major Programs

A student in good academic standing may declare either a double, combined, interdisciplinary or multi-field major.

For a *double major*, a student pursues concentrated work in any two departments offering a major (see above list) and meets the requirements for a major in both. The student may not count for graduation more than 22 units of such work. If majoring in the two departments leads to different degrees, the student may elect to receive either the B.A. or the B.S.

For an *interdisciplinary major*, a student pursues coordinated concentrated work in any two departments that develop a joint major involving courses from each department. Unlike double majors, interdisciplinary majors do not have to meet all the requirements for both single majors. Thus, interdisciplinary majors meet some but not all of the separate requirements for departmental majors in each department. St. Lawrence currently offers the following interdisciplinary majors: biology–physics, economics–mathematics, geology–physics and environmental studies with anthropology, biology, chemistry, economics, English, geology, government, philosophy, psychology or sociology.

A *combined major* allows a student to pursue concentrated work in any one department offering a major (see above list) and any special non-departmental academic programs, which are described in the Courses of Study chapter of this *Catalog*. St. Lawrence has special academic programs of study in African studies, Asian studies, Canadian studies, Caribbean and Latin American studies, cultural encounters, environmental studies, gender studies and Native American studies. While all students may pursue course work in these special studies programs, St. Lawrence offers established combined major programs in the following areas:

- African studies combined with history, government, anthropology or economics.
- Asian studies combined with history, government or religious studies.
- Canadian studies combined with anthropology, economics, English, fine arts, government, history, modern languages and literatures, religious studies or sociology.
- Mathematics combined with computer science.

The *multi-field major* program is designed for students who wish to study intensively in a multidisciplinary field but cannot achieve this goal through an existing departmental or interdisciplinary major. The multi-field program provides an opportunity for students to design their own program of study.

A student intending to pursue a multi-field major must submit a proposal for his or her individual plan of study to the multi-field major committee. Submission of a proposal does not guarantee acceptance into the program; the proposal must be approved by the committee. The proposed program must be an integrated plan of study for the junior and senior years that incorporates course work from a minimum of two departments or fields. The proposal must be signed by at least one faculty member in each field; one member of the faculty in that program or field will serve as the student's primary academic advisor. This advisor will have the same responsibility as a departmental advisor. After the proposal has been approved by the multi-field major committee, any subsequent changes from those courses specified in the proposal must be approved by the student's advisor and submitted in writing to the committee before the student begins to follow his or her new course plan.

A proposal for a multi-field major should be submitted during the student's sophomore year. The latest a student may submit a proposal is in the third week of the second semester of his or her junior year.

A student entering the multi-field program must fulfill the distribution, unit and GPA requirements for graduation. A student must have a 2.0 overall GPA to be admitted to the

program and must maintain a 2.0 cumulative average in his or her multi-field major to continue in the program. Students should be aware that certain courses carry prerequisites and that these apply to the multi-field major as well as the departmental major.

A proposal for a multi-field major is both a description of the academic plan and a commitment to adhere to the objectives stated in the plan. A proposal must contain:

1. A narrative section that describes the academic purposes of the program. The description must include a specific and detailed explanation of the question or area of interest that is the focus of the proposal. Also, the narrative must clearly and coherently demonstrate how the courses included in the proposal constitute an integrated, in-depth study of the question or interest. Proposals that display an ambiguous focus and randomly selected courses from unrelated fields of study will be rejected.
2. A completed Form A, obtainable from the chair of the multi-field major committee, which lists:
 - a. a minimum of two fields of study;
 - b. a minimum of four semester units in each field;
 - c. at least one advanced semester unit (300-level or above) in each field;
 - d. a total of at least six advanced semester units within the chosen fields of study.Form A must include the signatures of faculty sponsors in each field listed. One of these faculty sponsors must be designated as the primary academic advisor.
3. A current academic transcript.

Students choosing the multi-field major program are encouraged but not required to pursue an interdisciplinary, independent project (Multi-field 489 and/or 490) as part of the major. This project allows the student to pursue independent work in his or her area of interest as defined by the original proposal and should demonstrate the interrelationships among the fields comprising the multi-field major. The project can be submitted as one of

the six advanced semester units and its focus should be described briefly in the proposal. Projects are normally undertaken during the senior year.

A student may graduate with honors from the multi-field major program. Honors for the multi-field major requires a 3.5 GPA in the multi-field major, satisfactory completion of an interdisciplinary, independent project (Multi-field 490) and the presentation of its results in some academic forum. The student must also receive the recommendation of his or her advisors. (See also Distinction and Honors on page 26.)

Academic Minors

Academic minors were established by the faculty at St. Lawrence in the spring of 1986 with the goal of extending the curriculum's flexibility while adding another medium of connection, coherence and integration to the student's course of study. A student who has declared a single major may elect one or two minor fields; a student who has declared a double or combined major may elect one minor field.

Minors normally consist of five to seven courses, as defined by departments or interdisciplinary programs. The minor in education requires additional courses as mandated by the New York State Department of Education and the Board of Regents. (See individual program descriptions for details on specific programs.) A minor may not be declared in the student's major field, although a student may major in one foreign language and minor in another. Courses taken in the minor field beyond the maximum number required for the minor are not counted in the minor, but are counted in the 33.5 units required for graduation. Students must present a 2.0 average at the time of graduation in all courses taken in their minor departments. Semester course units in the student's minor field cannot be taken on a pass/fail basis after the minor is declared.

The following academic minors are available:

Department Minors

- Anthropology
- Biology
- Chemistry
- Computer Science
- Economics
- Education
- Fine Arts
- French
- Geology
- Global Studies
- Government
- History
- Literature (English)
- Mathematics
- Music
- Philosophy
- Physics
- Psychology
- Religious Studies
- Sociology
- Spanish
- Speech and Theatre
- Sports Studies and Exercise Science
- Writing (English)

Program Minors

- African Studies
- Applied Statistics
- Asian Studies
- Canadian Studies
- Caribbean and Latin American Studies
- Cultural Encounters
- European Studies
- Gender Studies
- International Literature
- Multi-field
- Native American Studies
- Outdoor Studies

Academic Regulations

Academic Honesty

The primary objective of the University is the promotion of knowledge. This objective can be furthered only if there is strict adherence to scrupulous standards of honesty. At St. Lawrence, all members of the University commu-

nity have a responsibility to see that standards of honesty and integrity are maintained. It is the responsibility of each student to learn and understand the standards of academic integrity expected at St. Lawrence, as expressed in the University's academic honor code. Additional information regarding academic honesty, plagiarism and academic dishonesty procedures and penalties can be found in the *Student Handbook*.

Student Records

The Family Educational Rights and Privacy Act (FERPA) of 1974, as amended, became effective on December 31, 1974. The purpose of the act as it pertains to post-secondary institutions is twofold: to assure students access to their educational records and to protect an individual's right to privacy by limiting the sharing of student records without his or her consent.

This information is made available to all students in accordance with the requirement that they be informed of the rights afforded them by the act. Specifically, students are advised of their rights as follows:

Records available to students: Matriculated students have "the right to inspect and review any and all official records, files, and data... including all material that is incorporated into each student's cumulative record folder, and intended for school use or to be available to parties outside the school...." St. Lawrence University defines "official records, files and data" and "cumulative record folder" to be the student's records as maintained by the student life and co-curricular education office, the registrar's office, the career services and leadership education office, the business office, the financial aid office and the education department.

The law requires the University to respond to a student's request to see the official record or the cumulative record folder by establishing "appropriate procedures for the granting of a request...within a reasonable period of time, but in no case more than forty-five days after a request has been made."

A student's file in the student life office includes the student's initial application, personal data forms, disciplinary records and records of communication with the student and his/her family from various University representatives. The registrar's office maintains the official academic record. The career services and leadership education office retains letters of recommendation for post-graduate and/or job placement.

The amended act clarifies that recommendations written before December 31, 1974, are not available to students and others unless approved by the writer. Recommendations written after that date are open to students *unless* the student waives this right. All students are urged to clarify this when requesting a recommendation.

Hearings to challenge a record: Students must be afforded "an opportunity to insure that the records are not inaccurate, misleading, or otherwise in violation of the privacy or other rights of students." Further, provisions must be made "for the correction or deletion of any such inaccurate, misleading, or otherwise inappropriate data" contained in the official record. Formal procedures for challenging such information are detailed in the Student Academic Grievance Procedure section of the *Student Handbook*.

Rights of third parties to access records: The University will disclose personally identifiable information from a student's education records only with the written consent of the student, *except:* (1) to school officials (i.e., persons employed by the University in an administrative, supervisory, academic, research or support staff position; a person elected to the board of trustees; a person or company employed by or under contract to the University to perform a special task, such as an attorney or auditor; or a student serving on an official committee or assisting another school official in performing his or her tasks) who have legitimate educational interests (i.e., the need to review education records to fulfill their University-related responsibilities); (2) to officials of another school in which the student seeks

or intends to enroll (note: it is the University's policy to forward education records to other agencies or institutions in which the student seeks or intends to enroll upon the request of such agencies or institutions, without notification to the student); (3) to authorized representatives of certain FERPA designated federal and state agencies for the enforcement of federal and state legal requirements; (4) in connection with a student's application for or receipt of financial aid, as necessary to determine the eligibility, amount or conditions of the financial aid, or to enforce the terms and conditions of the aid; (5) pursuant to court order or lawfully issued subpoena, but only after reasonable attempt to notify the student of the order or subpoena, unless the subpoena prohibits disclosure of the existence or contents of the subpoena or information furnished in response to the subpoena; (6) to accrediting organizations to carry out their functions; (7) to parents of a student who claim the student as a dependent for income tax purposes; (8) in connection with health and safety emergencies, as permitted by law; (9) to an alleged victim of any crime of violence or the results of any institutional disciplinary proceeding against the alleged perpetrator or that crime with respect to that crime; and (10) as otherwise permitted by FERPA and its implementing regulations as amended from time to time.

All persons desiring access to such records, except on the grounds of exceptions 1, 5 (when the subpoena orders confidentiality) or 7 above, shall be required to sign a written record access form, which shall be kept in the student's file.

With the exception of disclosures covered by the exceptions noted above, prior to release of personally identifiable information from a student's education records, and subject to the rules regarding "directory information," below, written consent must be received from the student specifying the records to be disclosed, stating the purpose of the disclosure and identifying the party or class of parties to whom the disclosure may be made. The authorization for release shall be kept with the student's file.

Whenever the University discloses personally identifiable information from an education record (except as to disclosures (1) of “directory information,” (2) to the student who is the subject of the record, or (3) to the parent of a dependent student) it shall inform the party to whom it is disclosing the information that it may not be further released or disclosed without the consent of the student or the parent of a dependent student.

Records unavailable to students: Students do not have the right of access to their parents’ confidential financial statements or to medical, psychiatric or “similar records that are used solely in connection with treatment and only available to recognized professionals or paraprofessionals in connection with such treatment.” Students, however, could have a doctor or other qualified professional of their choice inspect their records.

Directory information: The University continues to have the right to release “directory” information, limited to name, address, telephone number, dates of attendance, major field of study, degrees and awards received and the most recent previous educational agency or institution attended by the student, without first obtaining the consent of the student. Students or parents wishing to have the information excluded from directories should contact the office of the dean of student life and co-curricular education.

Student records, other than the academic transcript, are destroyed four years after a student graduates or leaves St. Lawrence University.

Copies of the act are available in Vilas 114, and students are encouraged to discuss any aspect of the law or their individual file with the vice president and dean of student life and co-curricular education. Copies of any or all parts of the record are available to the student at the student’s expense.

Transcripts

A transcript of the academic record of each regularly enrolled student is maintained in perpetuity in the registrar’s office. Any student or former student may request a copy of her or his

own transcript at any time. All such requests must be made in writing or in person at the registrar’s office. Except as permitted under federal and state law, the University requires signed authorization to release a copy of one’s transcript to a third party. The University reserves the right to withhold academic transcripts in the event of an outstanding balance owed the University at the time of the request. There is no charge for copies of one’s St. Lawrence transcript.

Credit Toward Graduation

Candidates for baccalaureate degrees may earn credits toward graduation from St. Lawrence University in one or more of the following ways:

1. By satisfactory completion of courses offered by St. Lawrence.
2. By satisfactory completion of courses taken through cross-registration from one of the other members of the Associated Colleges of the St. Lawrence Valley (State University of New York Canton College of Technology, State University of New York College at Potsdam and Clarkson University). Up to two such courses per year (September 1–August 31) may be taken. Since these courses are considered as taken in residence at St. Lawrence, and since the grades received in them are part of a student’s cumulative average, the general policies on transfer credit do not apply to them. The credit value of such courses, however, is calculated in the same way as that described in II.A.2, below, regarding transfer of credit from other institutions.
3. By transfer from an accredited institution of higher education of approved liberal arts course credits, with grades of at least 2.0 (C) or its equivalent. This includes P (Pass) in P/F (Pass/Fail) systems from other accredited collegiate institutions. (See II.A, below). A maximum of eight units are transferable to St. Lawrence if taken by a matriculated student.
4. By Advanced Placement tests, as administered by the College Entrance Examination Board, Princeton, New Jersey. (See II.B, below)

5. By International Baccalaureate Higher Level Examinations in which a score of 5 or higher is achieved. Credit is not awarded for Subsidiary Level examinations. Course credit is regarded as transfer credit and is determined by the registrar in consultation with the appropriate department chair.
6. By satisfactory completion of specified Canadian "Grade 13" courses. (List of eligible courses is available in the registrar's office.)

Credit from Other Sources

- I. The following general policies apply to credits earned or sought from sources other than courses offered by St. Lawrence and courses taken by cross-registration.
 - A. The student must be matriculated (accepted by admissions) as a full-time student at St. Lawrence University, with the exception of an employee of St. Lawrence University or other member of the Associated Colleges who may be part-time.
 - B. At entrance, acceptability of credit is determined by the registrar; at other times it is determined by the registrar and/or committee in consultation with the appropriate department chair(s).
 - C. Credit is given no grade value and does not become a part of the student's cumulative or major or minor GPA. For a unit to be transferred, it must have a minimum grade of C or 2.0 on a four-point system.
 - D. Upon entrance, the equivalent of two years' work may be counted toward graduation. Sixteen units must be completed at St. Lawrence.
 - E. Matriculated students in good academic standing (having a minimum GPA of 2.0 and the proper number of completed units) may transfer up to eight units of credit.
 - F. Matriculated students on academic probation must have a GPA of at least 2.0 to transfer academic credit from other institutions.
 - G. Transfer credit will not be granted to students while they are under academic suspension. A student readmitted from academic suspension may request the registrar for transfer of credit earned elsewhere while under suspension.

H. Students may not transfer courses from other institutions for St. Lawrence University distribution credit after the time of their matriculation, except that they may apply to the academic petitions committee for acceptance of credit earned during one of St. Lawrence's international programs.

II. In addition to the general policies, the following specific policies apply to particular means of obtaining credit.

A. *Transfer credit from other institutions*

1. To be assured of receiving credit toward graduation from St. Lawrence University, matriculated students must obtain prior approval of individual courses or programs of study. If intending to study off-campus during a regular fall or spring semester, such approval must be obtained from the committee on off-campus study and the appropriate department chair(s). Approval of courses to be taken during the summer or between the fall and spring semesters should be obtained from the appropriate department chair(s) through the registrar's office.
2. The credit value of transferred work undertaken during an academic year by a matriculated student shall be assessed against the standard of the expected normal full load of the host institution. For example, a student who completes 15 hours of credit at an institution where the expected normal full load is 12 to 15 hours will ordinarily receive four units of credit toward graduation at St. Lawrence. In other cases:
 - a. A maximum of two three-semester-hour courses may be transferred to St. Lawrence as one St. Lawrence unit each.
 - b. Beyond two courses, credit value of semester-hour courses (including the first two courses) shall be assessed in accordance with a table of values maintained by the registrar.

B. *Advanced standing and credit*

Advanced standing and credit toward graduation are granted to students who achieve a rating of 4 or 5 on the Advanced Placement Examination in the following subjects:

AP Exam	SLU Equivalent	SLU Units	Distribution
Chemistry	Chemistry 103	1	
Computer Science A	Computer Science 140	1	
Computer Science AB	Computer Science 140 and 219	2	
English Language and Composition	None	1	
English Literature and Composition	English 190	1	Humanities
Economics Macro <i>and</i> Micro	Economics 100	2	Social Science
Economics Macro <i>or</i> Micro	None	1	
History, United States	History 103,104	2	Social Science
History, European	History 102	1	Humanities
History, World	None	1	
Mathematics Calculus AB or AB subcode on calculus BC exam)	Mathematics 135	1	Liberal Arts/ Math
Mathematics Calculus BC	Mathematics 135 and 136	1	Liberal Arts/ Math
Modern Language (Language)	French, German or Spanish 201 200 level	1	Liberal Arts/ Foreign Language
Modern Language (Literature)	None	1	
Psychology	Psychology 100	1	
Statistics	Mathematics 113	1	Liberal Arts/ Math

Students earning a score of 4 or 5 on the General Biology AP exam may earn 1 unit for Biology 102 if they successfully complete Biology 101. Explanation of details of this option may be obtained from the biology department.

Courses are acceptable in lieu of departmental prerequisites and fulfill distribution requirements, as indicated. Students who

score 3 may be considered for advanced standing and/or credit by individual departments. The effect of advanced credit upon the department major requirements is determined by each department chair.

Registration for Courses

Continuing students who expect to be enrolled in the following term must register in April for the fall term and early November for the spring term. New students register for the fall term during fall orientation. Registration instructions, course listings and schedule forms are issued to all students prior to designated registration deadline dates. Students must meet with their academic advisors prior to registering for courses. Students who register late are subject to a fee of \$45 and loss of class priority. Registration priorities are ordinarily assigned to courses on the following basis: majors, minors, seniors, juniors, sophomores, first-year students, others.

Registration for a Course Overload

A student may enroll in up to four and a half St. Lawrence course units without additional tuition charge. Enrolling in more than four and a half units is considered an overload and may result in additional charges.

After the first year, a student may register for a course overload if the student meets certain academic criteria.

Free Overload

- Students with a 3.2 overall or 3.2 prior semester average may register for up to 5.5 course units without additional tuition charge if they have made satisfactory progress toward graduation at St. Lawrence (e.g., have not taken a reduced course load, withdrawn from a course, failed a course).
- Students matriculating between Fall 2001 and Fall 2004, inclusive, who have a cumulative GPA of 2.0 or better may take one course as an overload (up to 5.5 units maximum) with no additional fee once during a fall or spring semester of their undergraduate career.

- A student who fails to convert all incomplete (E) grades to final grades by the end of the drop/add period may not take the free overload course privilege when other conditions are met. Cumulative and semester averages are based upon St. Lawrence credit.
- The free course overload only applies to fall and spring semesters and is only available to full-time students.

Overload with Payment

- Full-time students who matriculated prior to Fall 2001 and who have an overall GPA of 2.5 or higher but below 3.2, may take an overload course with additional payment.
- Full-time students who matriculated between Fall 2001 and Fall 2004, who have used their one free course overload and who have an overall GPA of 2.5 or higher but below 3.2, may take an overload course with additional tuition payment.

Continuing a Foreign Language

Students planning to continue study of a foreign language begun in high school are strongly urged to take the CEEB achievement test in that language. The results are used for placement in the appropriate course. If a student does not take the CEEB test, he or she may request to take a special placement test administered by the modern languages and literatures department prior to enrollment in the continuing language. Students may not enroll for credit in a beginning language course if they studied the language for two or more years in secondary school.

Registration Changes

A full-time student may not reduce his or her course load in any semester to fewer than four semester course units without consulting with his or her advisor, the registrar and, when appropriate, the associate dean of the first year. It is expected that a student will consider withdrawing from a course only in extenuating circumstances.

Students may not take a course load of fewer than 3.5 units in any semester without

their student status or athletic status being affected. They must consult with their academic advisor(s) and the course instructor and submit a properly executed add/drop or withdrawal form obtainable at the registrar's office. Students who begin the semester on a part-time status, or who fall to part-time during the first month of the semester by dropping or withdrawing from a course (down to a total of three course units or fewer), will be certified as part-time students for New York state financial aid purposes, other private scholarships that require full-time certification and repayment of student loans. They will lose their New York State Tuition Assistance Program (TAP) and Scholarships if they are part-time students. Foreign students, veterans and athletes who participate in an NCAA sport are also affected.

Add/Drop Policy

During the first seven days after classes begin in any semester or the first three days after classes begin in any summer session, a student may add or drop a course without a permanent record being made of the change. Students changing their schedules within the add/drop period must have written approval of the instructor of each course being added or dropped as well as the approval of their advisor. Students may request from the academic petitions committee a late schedule change with instructor and advisor permission. Approved late changes may result in a \$45 late change fee.

Withdrawal from a Course

Twice before graduation, students are permitted to withdraw from a course after the first seven days and until the end of the tenth week of classes. The course remains on their transcript, and a 'W' grade is entered by the registrar. If a withdrawal form, properly executed, is not submitted before the deadline, the student remains enrolled in the course, and is graded accordingly. Withdrawing from FYP or FYS is not permitted.

Withdrawal for Medical Reasons

Students may apply to the vice president and dean of student life and co-curricular education for a medical withdrawal from a course, courses, or the entire semester during the semester for which the withdrawal is requested. Documentation from an appropriate medical, psychiatric, or psychological professional must be provided at the time of application.

The vice president and dean of student life and co-curricular education may grant a medical withdrawal for the semester immediately preceding the semester for which the student is registered, provided (1) the withdrawal is for the entire semester and (2) in her/his judgment, application for the medical withdrawal could have been made and would have been granted for that semester.

Only in consultation with the chair of the academic petitions committee, and under unusual, documented circumstances, may a medical withdrawal be granted for a semester prior to the last semester for which the student was registered.

If a withdrawal for medical reasons is approved, the registrar enters a 'WM' grade for each course involved. A student who receives a 'WM' in a course may retake that same course before graduation and is charged only the difference between tuition at the time of withdrawal and tuition at the time the course is retaken.

If a student who is on a medical withdrawal from the University applies for readmission to St. Lawrence, the student's physician or another certified medical professional must supply the student life office with a letter giving professional assurance that the student has recovered from the medical problem and that there is a reasonable assurance that the student will be able to successfully resume his or her career at St. Lawrence.

For the financial implications of withdrawal from a course, see Refund on Withdrawal in the Financial Information section of this *Catalog*.

Leave of Absence

A leave of absence may be granted by the dean of student life to any student who is in good academic and social standing. Such a student may be readmitted at the start of a term provided that: (1) readmission is within three terms of the student's leaving, (2) the University receives a 60-day notice of the student's intention to return and (3) there is housing and classroom space available. Only one course per semester may be transferred to St. Lawrence while a student is on a leave of absence.

Grades

The grading system in use at St. Lawrence is described below:

<i>Grade</i>	<i>Grade Point Equivalent per Course Unit</i>
4.0 Excellent	4.0
3.5 Intermediate between Excellent and Good	3.5
3.0 Good	3.0
2.5 Intermediate between Good and Satisfactory	2.5
2.0 Satisfactory	2.0
1.5 Intermediate between Satisfactory and Lowest Passing Grade	1.5
1.0 Lowest Passing Grade	1.0
0.0 Failure	0.0
E Incomplete	0.0
P Pass under Pass/Fail option	0.0
W Withdrawn	0.0
WM Withdrawn Medical	0.0
X See below	0.0
U/W Writing competency	0.0
NGS No Grade Submitted by Instructor	0.0

X grade is assigned at the end of a semester for work in a designated course that will be completed in the following semester. Only those students specified by the mid-term of the initial semester are eligible to receive an X grade. This grade is not to be confused with the incomplete (E), which is given to a student who fails for a valid reason to complete the work of a course within the period prescribed for that course.

Incomplete (E) is assigned only when, as a result of unusual or extenuating circumstances (e.g., illness), some part of the required work for a course is left unfinished. In such a case, the instructor informs the department chair and agrees with the student on conditions, preferably in writing, for removal of the E. The student is expected to fulfill these conditions in good time, in the ensuing semester, for the instructor to evaluate his or her work and report a permanent grade to the registrar by the end of the sixth week. If no grade is reported, the E is replaced by 0.0 (Failure).

The department chair may request further delay from the registrar, but this delay may not be longer than the term. If the student is not in residence during that term, the delay may be extended for one additional semester. Further extension must be requested of the dean of academic affairs and is unusual since the passage of time often brings changes in instructor and course content.

It is the responsibility of the *student* to see that conditions for the removal of a grade of E are established and met.

Pass/Fail—During the four years in college, a student is permitted to elect up to four semester course units of work, including Sports Studies and Exercise Science (SSES) 100, to be graded Pass/Fail. The purpose of the option is to encourage students to explore new areas of study in which they are interested but have little or no background. The Pass/Fail option is not offered to allow for the removal of deficient mid- or late-term grades incurred, nor to justify reduced effort in a course. The Pass/Fail option may be chosen for semester course units taken to satisfy distribution requirements or any elective semester units outside the major or minor. The Pass/Fail option is subject to the following limitations:

1. Semester course units in the student's major and minor fields cannot be taken on a Pass/Fail basis after the major and minor are declared.

2. No more than one optional Pass/Fail course can be taken in any semester.
3. The Pass/Fail option requires the written consent of the instructor within the first 15 days after classes begin in the fall and spring semesters. In summer session, students may avail themselves of the option within the first five days of classes.

A student must attain a minimum of a 1.0 grade to receive a Pass for the course.

Students should be aware that grades of 0.0 (F) are calculated in the grade point average. Although the P grade is not calculated in the grade point average, P grades may place students at a competitive disadvantage when they apply for admission to some graduate or professional schools.

Repeating Courses—Courses other than those required for graduation or required for the major may not be repeated except with the approval of the academic advisor and the director of academic advising. If a course is repeated, it is this second attempt that counts toward the total units required for graduation. Grades from both attempts shall be computed in the cumulative average.

Distinction and Honors

Degrees with distinction (Latin honors) are awarded *cum laude*, *magna cum laude* and *summa cum laude*. The distinctions are based on the cumulative grade point average. Transfer students who have completed at least two full years of course work at St. Lawrence are eligible for all Latin honors. The GPA used to determine eligibility of transfer students is based on St. Lawrence University courses only.

Departmental honors, including the multi-field and combined major programs, are awarded according to the following policy:

1. A minimum GPA of 3.5 in all courses in the major is required.

2. The only designation recognizing departmental honors is "Honors."
3. Each student is required to complete a project that emphasizes independent work, the nature of which is determined by the discipline.
 - a. Each department determines the course framework within which the project is completed.
 - b. Each department establishes the minimum standards the project must meet to satisfy the requirements for departmental honors.
 - c. An honors committee consisting of no fewer than three faculty members, at least two of whom are members of the department, is appointed for each honors project. For multi-field majors, at least one member of the committee is one of the major advisors.
 - d. Each department will determine whether or not the honors project will count toward the major. Honors projects taken for academic credit will, however, count toward the maximum of 14 units permitted in one department.
 - e. If the department determines that a completed project does not meet the appropriate standard to be awarded honors but that the project does constitute otherwise acceptable work, a project taken for academic credit receives credit toward graduation and the grade is computed as part of the major and cumulative GPA.

The Dean's List comprises those students who in the preceding semester earned a GPA of 3.6 or higher in a minimum of four courses (worth at least one unit each) worth a minimum of four units. Students who receive an X grade in an independent study or project and who earn a 3.6 or higher average in a minimum of three or more courses may receive Dean's List designation.

Academic Petitions Committee

Students occasionally experience extenuating circumstances that interfere with their intent to follow rules and procedures regarding various facets of University life. Students may also find confusing or unacceptable an interpretation of a rule or procedure as applied to their individual situation. The academic petitions committee meets weekly to discuss requests by students to consider exceptions to University policy regarding schedule changes, course grade options, distribution requirements and graduation requirements. Appropriate documentation and academic advisor and/or course instructor substantiation of claims to extenuating circumstances must be provided by the petitioning student. Information about the petition procedure is available from the chair of the academic petitions committee or the registrar.

Academic Standing Eligibility for New York State Awards

All students eligible for New York State awards such as Tuition Assistance (TAP) and regents scholarships must complete minimum course progress and meet minimum GPA requirements to retain such awards in subsequent semesters. These requirements are mandated by the New York State Department of Education. The standards of satisfactory progress are detailed in the *Student Handbook*.

Academic standing is determined by two criteria: the quality of academic achievement as indicated by the cumulative GPA and progress toward the degree.

A student is expected to maintain:

1. A cumulative GPA of 2.0 or higher.
2. Satisfactory progress in units completed toward graduation.
3. Satisfactory progress and GPA in the major. (This applies to juniors and seniors who have earned 17 or more units toward graduation.)

A student not meeting these expectations will be placed on probation or suspended from the University; however, a student placed on probation but permitted to remain at the University as an enrolled student shall be considered a student in good standing where questions of eligibility for financial aid programs are concerned.

The records of all students not meeting these expectations are reviewed at the end of each semester (and of the academic summer session) by the committee on academic standing.

Normal Academic Standing

Normally, academic standing is defined as (1) earning the minimum number of course units as indicated in the Guidelines for Normal Academic Progress (below) and (2) maintaining a cumulative GPA of 2.0 or higher.

Guidelines for Normal Academic Progress

<i>End of Term</i>	<i>Units Completed</i>
1	4.5
2	9.0
3	13.0
4	17.5
5	21.5
6	25.5
7	29.5
8	33.5

Required Summerterm

At the end of the academic year, first-year students or sophomores who have cumulative averages of less than 1.75 and juniors with GPAs less than 2.0 will be required to attend summerterm at St. Lawrence. Academic improvement, demonstrated by earning a minimum summerterm average of 2.25 or a higher standard of performance as stipulated by the academic standing committee, is required.

Guidelines for Probation

Students will be placed on academic probation if they fail to meet satisfactory levels of performance as reflected by one of three measures: cumulative GPA, semester GPA or major GPA.

Cumulative GPA – Students are placed on academic probation if their cumulative GPA falls within the following range based on terms completed:

<i>Completed Term(s)</i>	<i>Minimum Cumulative GPA</i>
1-4	1.50 - 1.99
5-7	1.75 - 1.99
8	< 2.0

If their progress is deemed not satisfactory, they are placed on probation and receive letters that indicate that they must (1) earn a semester GPA of 2.0 or above in their first semester on probation and (2) raise their overall GPA to a 2.0 or higher in the ensuing semester or they will be suspended.

Students on probation are expected to work with the academic skills coordinator or the director academic advising and their academic advisor to plan a program to address their academic situation. For more information, consult with the registrar.

Semester GPA – Junior or first-semester seniors with a semester GPAs below 1.75 will be placed on academic probation.

Major GPA – Students whose GPA in their major (i.e., the average of grades in courses applicable to the major) falls below 2.0 will be placed on academic probation. Students whose GPA in their declared major remains below 2.0 for two semesters, and who are unable to find a suitable probationary major, will be suspended.

Guidelines for Academic Suspension

Students who fall into one or more of the following categories will be suspended:

1. First-year students (including first-semester first-year students) or sophomores with cumulative GPAs of less than 1.5, juniors and first-semester seniors with cumulative GPAs of less than 1.75, and second-semester seniors with cumulative GPAs of less than 2.0.

2. Students on probation who do not earn a semester GPA of 2.0 or above in their first semester on probation, or do not increase their overall GPA to 2.0 at the end of the following semester.
3. Students who do not earn a minimum average of 2.25 or the higher standard of performance stipulated by the academic standing committee, during a required summer term; and
4. Students who have less than a cumulative GPA of 2.0 in their major and cannot find a new or probationary major.

Students are suspended for one calendar year. Suspended students are not considered St. Lawrence University students and are not eligible to receive credit for or take courses at the University.

The following table shows the cumulative GPA that will lead to suspension.

<i>End of Term</i>	<i>Minimum Cumulative GPA</i>
1-4	< 1.50
5-7	< 1.75
8	< 2.0

Appeal of Academic Suspension

Suspended students who can document extenuating circumstances have the right to appeal to the academic standing committee. Appeals, which will be reviewed by the committee, should be directed to the registrar. If the appeal is denied, another appeal may be submitted to the dean of academic affairs. This appeal should be considered only if new information or other extenuating circumstances can be documented.

Readmission

Suspended students may apply to St. Lawrence University for readmission one calendar year after they were suspended. Applications for readmission are available from the registrar. In addition to the completed application, the following information must be provided:

1. Transcripts of academic work undertaken while suspended.
2. Letters from instructors of courses in which students were enrolled while suspended.
3. If applicable, letters of support from employers, counselors or therapists with whom the student has worked since suspension.

An interview with the chairperson of the academic standing committee may be required.

Expulsion

Students will be expelled if they have been readmitted but fail to meet their academic readmission requirements. Expelled students who can document extenuating circumstances have the right to appeal to the academic standing committee. Appeals should be directed to the registrar. Expulsion represents a complete severance of ties to the University. Students who have been expelled from St. Lawrence University do not have the option to apply for readmission.

International Students

International students under F- and J-type visas are required to carry and complete at least 3.5 units of work each semester.

Academic Resources and Opportunities

Academic Advising

All first-year students at St. Lawrence participate in the First-Year Program and are assigned a primary faculty advisor who is a faculty member in their residential college. Most students remain with their First-Year Program advisor for the first two years. However, a student may change his or her advisor to a faculty member in an anticipated field of study at any time prior to the declaration of the major. Such a change requires the consent of the proposed advisor.

At the time a student declares his or her major in the spring of the sophomore year, the student also accepts a faculty member from that field of study as his or her major advisor. The major advisor may be a faculty member who agrees to work with the student at the student's request, or may be assigned by the department chair. Students who declare two majors must have two advisors, one for each field.

The major advisor monitors and reviews the student's academic progress throughout the remainder of the student's academic career at St. Lawrence. In addition, major advisors help juniors and seniors plan the most appropriate program within the major. Major advisors will also guide students as they consider graduate or professional schools, career avenues or other post-graduation opportunities.

Students at St. Lawrence are expected to solicit advice from resource persons associated with other programs or departments relevant to their intellectual and personal development. Supportive advising is provided for students who are members of the University Scholars Program, the Higher Education Opportunity Program and/or the Collegiate Science and Technology Entry Program. The student life division at St. Lawrence also provides counseling to students through a variety of offices including student development, career services and leadership education, and counseling services. (See the chapter entitled Student Life in this *Catalog*).

First-year students are free to add an advisor in a department of interest to them. All other students are free to change advisors at any time in their college careers. Requests for advisor additions or changes or any questions about advising should be directed to the director of academic advising.

Academic Achievement Office

Every student has his or her own style of learning. The office of academic achievement serves as a resource for all students at St. Lawrence, by helping students not only to identify academic areas of strength and areas in need of improvement, but also to imple-

ment specific strategies to achieve greater academic success. To help students accomplish their academic goals, the office of academic achievement hosts the following programs:

Peer Tutoring Program

Tutoring is *free* for all students. All St. Lawrence University students are welcome to sign up for peer tutoring, which is available in almost every subject and is offered for most introductory-level courses. The peer tutors are St. Lawrence students who have distinguished themselves in their departments with high grades and productive study habits. They are recommended by faculty members and participate in a five-week training process.

Academic Counseling

Any student at St. Lawrence who would like to achieve more academically may request an individual meeting with the coordinator of academic achievement. The coordinator will then work with the student to develop an individual plan with the goal of achieving increased academic success. This meeting may lead to further meetings in this office or with other resources on campus, such as advisors, professors, teaching assistants, mentors, peer tutors, the writing center, the counseling center, the office of accommodative services or the office of academic support.

Academic Success Workshops

At the beginning of each semester, a series of workshops is offered on various topics, such as time management, note-taking, reading strategies and test-taking strategies. In addition to the regularly scheduled series, any student, student organization, faculty member or coach may request specific workshops on these or other related topics.

The Munn Writing Center

Writing well is not a once-learned skill, but evolves through sustained practice over the four years of a student's undergraduate experience. Therefore, writing center faculty and staff work with writers at every level of experience in every academic major and minor. There are no charges or fees, and appoint-

ments, although encouraged, are not required. Writers receive detailed, constructive responses to their work from well-trained peer tutors at any stage of the writing process, from brainstorming to editing.

In addition to offering individual tutoring, the writing center also provides training and support for First-Year Program writing mentors and the tutors assigned to writing-intensive courses across the disciplines. The Spanish writing center offers assistance to students writing essays in Spanish language and literature courses, and the sociology lab offers tutoring in writing and technology.

The Munn Writing Center is located in the Owen D. Young Library and is open during both sessions of summer school. The Spanish writing center is in Carnegie Hall and the sociology lab is in Piskor Hall.

Provisions for Students with Special Needs

The office of accommodative services was established to assist individuals on the St. Lawrence campus who have disabilities. A student who is admitted to St. Lawrence and has a learning disability must present written documentation by a licensed psychologist who has diagnosed the student according to the definition of learning disability as stated in Section 5, Part B of Public Law 94-142, November 1975.

St. Lawrence grants “reasonable accommodations” to documented learning-disabled students as established by the Vocational Rehabilitation Act of 1973. Such accommodations, which are the student’s responsibility to request, are granted as needed on a case-by-case basis, and are arranged by the student and professor upon consultation with the director of the office of special needs. All requests for accommodations must be supported by appropriate documentation provided by the student. The office of special needs also serves other individuals with disabilities. Anyone who has any disability is provided counsel on the facilities, equipment and accommodations available at St. Lawrence.

Further information about St. Lawrence’s accommodation policy is available from the director of the office of accommodative services or see the special needs office Web page at <http://web.stlawu.edu/needs/index.html>. Academic requirements that are an essential part of the University’s education goals may be accommodated, but may not be waived.

Collegiate Science and Technology Entry Program

The Collegiate Science and Technology Entry Program (CSTEP) was established by the state of New York to provide services to New York students from underrepresented populations who are seeking careers in the sciences, mathematics, health-related professions, technology fields, and the licensed professions. At St. Lawrence University, CSTEP provides academic, career and personal counseling; opportunities to explore graduate school programs and career options; encouragement of and support for internship and research projects; assistance in preparation for GREs, MCATs and LSATs; opportunities to hone leadership skills; recognition of achievement through a newsletter, Web page and annual awards banquet; network opportunities with peers and career professionals; workshop opportunities; and monetary assistance in support of program goals.

Computing and Media Facilities

Computing at St. Lawrence is a resource used by every discipline. The University has worked actively to integrate computing and media technologies into all facets of academic life and to support the faculty’s use of technology in teaching.

Students who are new to computing can take workshops from, and bring questions to, the office of information technology. Students with special interest in computing should consider enrolling in the mathematics department’s computer science courses. In every program of study, students are encouraged to employ the technologies available to them as tools to enhance their learning experience.

Recognizing technology's importance for teaching and learning, the University maintains substantial computing facilities, including more than 250 personal computers in public access computing labs. A fast campus network connects all classrooms, computer labs, faculty and staff offices and on-campus residence rooms. Available network services include direct Internet access (including World Wide Web and electronic mail), traditional PC applications, access to the Owen D. Young Library catalog and personal data storage space. Students who own personal computers can connect directly to the campus network to access available services in their residences.

Computing facilities are available in many campus locations. The Madill lab and all residential labs are open 24 hours a day. Classroom labs are open from 8:00 a.m. until 11:00 p.m. All lab computers run Microsoft Windows 98 and print to laser printers located in the labs. The Madill lab offers printing service for Macintosh users as well.

The division of information technology offers extensive audiovisual and video services on campus. Facilities include 32 auditoriums and classrooms equipped with ceiling-mounted data and/or video projectors and four theatres equipped for showing 16-millimeter films. Most presentation classrooms are also equipped with one or more computers and various video and audio playback machines that support the integration of computing and media technologies. Faculty use broadcast television, video and/or computer-generated materials to enhance the teaching/learning experience.

The division operates a campus-wide cable television system that provides 20 educational and 53 cable channels to every room on campus. Many faculty members use this network by assigning video materials for students to watch in their residences. Several satellite antennae allow students and faculty to receive and distribute television programming in Russian, French, German and Spanish, as well as other news and special events programming from over 20 countries worldwide. Students

have the option of subscribing to commercial cable television channels through the local cable company.

The University's video collection offers more than 3,200 titles for broadcast over the campus video network and for other instructional purposes. Information technology maintains video and audio productions and editing equipment, enabling students to complete special media projects for class presentations.

Information technology supports campus computer users by offering workshops, documentation and one-on-one assistance. The department maintains a fully staffed telephone and walk-in help desk in Madill Hall.

University Libraries

The St. Lawrence University libraries' mission statement sets forth the following key goals:

- prepare students for a lifetime of learning by teaching them not only how to locate information but also how to evaluate the sources retrieved;
- build, maintain and make accessible on-site collections that support the liberal arts;
- expand gateways to scholarly resources beyond the bounds of the campus.

Toward the achievement of the above goals, the St. Lawrence libraries now make available to students and faculty almost 1.5 million items, including more than 500,000 books, approximately 400,000 government documents, 2,000 print subscriptions, 571,000 microform units and 3,500 videos. In addition to these local print and microform resources, the St. Lawrence libraries provide access to the world's scholarship by means of a library Web page that connects St. Lawrence students and faculty to collections and resources available through the World Wide Web. This year it is possible to search more than 90 networked bibliographic databases as well as over 8,000 online full-text periodicals from any location on or off campus. For an online view of the libraries' services and collections, visit the library Web page at <http://web.stlawu.edu/library>.

Library Facilities

Even as the St. Lawrence libraries staff have aggressively added scholarly resources in electronic form to the already substantial print collections, they have also attempted to create physical spaces that support both *research* and *instruction*. Thus, Owen D. Young Library, renovated in 1999, includes a new electronic classroom and group study space dedicated to the teaching mission of the library. Highlights of the six-million-dollar ODY renovation include:

- Three new electronic classrooms, equipped with workstations and state-of-the-art teaching equipment for hands-on learning. When the classrooms are not scheduled for class use, they are available for student use.
- Fourteen new group study/seminar rooms available for individual and group use.
- Two hundred new seats in locations that are “wired” for network and Internet access. (This addition makes seating in the Owen D. Young and Lauenders Libraries available to roughly one-half of the student body at any given time).

In addition to ODY, which houses the college’s major collections in the social sciences and humanities, the Lauenders Science Library (opened in 1994) now provides a home to the science and technology collections at St. Lawrence. The science library occupies the upper two floors of Madill Hall and triples the space available for science resources and services. Highlights of this space include many attractive group studies, a seminar room with a projector for online instruction, a map room and a new geographic information system (GIS) lab.

Library Instruction

Research competency is one of the formal curricular objectives of the University. By the time students graduate, they are expected to be able “to conduct research and think critically.” Students at St. Lawrence learn how to use library resources intelligently in the new bibliographic instruction/electronic classrooms located adjacent to the reference desk area in the ODY Library and in the Lauenders Library seminar room. Library instruction is offered in courses

across the curriculum and through a variety of general and special offerings. Assistance is also available to students through a term paper consultation service designed to provide individual help for students working on research papers or doing special projects.

Special Collections

The ODY Library’s wonderful collection of primary scholarly resources may be viewed and used in the beautiful new Frank and Anne Piskor Special Collections reading room, located directly across the atrium from the main entrance of the library. Each semester the special collections staff offers instruction to classes from a variety of academic departments and programs, including fine arts, French, English, history, environmental studies and economics. In addition, the special collections area includes a laboratory press that allows students to explore the art and history of books through hands-on activities.

Highlights of St. Lawrence’s special collections include the Ulysses S. Milburn Collection of Hawthorniana, the Edwin Arlington Robinson Collection and the Frank P. Piskor Collection of Robert Frost. Other special collections include manuscripts devoted to Frederic Remington, the Adirondacks, the St. Lawrence Seaway and other aspects of northern New York history. For access to the special collections Web page, go to <http://web.stlawu.edu/library/rbrwelco.html>.

Richard F. Brush Art Gallery and Permanent Collection

Named in recognition of Richard F. Brush ’52, the art gallery is an academic resource whose mission is to acquire, preserve, interpret, exhibit and otherwise make accessible works of art for the benefit of a variety of audiences in support of the educational goals of the University. Programs and activities are designed to balance a range of disciplinary and interdisciplinary objectives in recognition of diverse functions and meanings of art. As such, the gallery provides a forum for the creative and critical expressions of artists, historians, curators and scholars. The gallery seeks to integrate all

of its activities into the University's academic programs and curricular initiatives.

The stewardship of the University's permanent collection and an ambitious program of temporary exhibitions are the central components of the Richard F. Brush Art Gallery. Related activities such as lectures, panel discussions, residencies, tours, acquisitions, conservation projects and campus displays provide educational opportunities for students, faculty and the broader community. The gallery encourages such involvement in the utilization of the collection, the exhibition program and all related educational activities.

The collection contains nearly 7,000 art objects and artifacts that are frequently displayed in the gallery and used for tours and classroom discussions. While dating to the University's founding, the gallery's most vital growth has taken place in the last 50 years. Twentieth-century works on paper, such as photographs, prints, drawings, portfolios and artists' books, represent the strengths of the collection. Paintings and sculptures by Frank Stella, George Segal, Louise Nevelson, Isamu Noguchi, Milton Avery and Frederic Remington are among the collection's highlights. In 2000, the gallery compiled a comprehensive catalog, *Photographs at St. Lawrence University*, marking the first publication in printed form to document any aspect of the permanent collection; the catalog includes essays by St. Lawrence alumni Eloy J. Hernández '93, Michael E. Hoffman '64, Mark C. Klett '74 and Thomas W. Southall '73.

The gallery presents 12 to 14 exhibitions during the academic year, including work by regional, national and international artists. Exhibitions are organized by faculty, gallery staff, guest curators and artists and traveling exhibition organizations, drawing objects from the University's permanent collection, museums and arts institutions, artists, private lenders and commercial galleries. Recent projects have included *Good and Bad Hair*, an exhibition of photographs by Bill Gaskins; exhibitions about New York State's Adirondack Park by Betsy Brandt and Susie Brandt, Nathan Farb and

Seneca Ray Stoddard; *Visions That The Plants Gave Us* curated by Luis Eduardo Luna; *Circle of Enlightenment*, a festival of the arts program featuring a Tibetan Buddhist sand mandala constructed by monks from the Namgyal Monastery; photographs by Alison Wright and Heinrich Harrer; and an exhibition of thangka paintings and sacred ritual objects from the permanent collection and private lenders.

Students actively participate in all aspects of the gallery, learning museum standards in art handling as well as matting, framing and installing works of art for exhibitions. Student-guided tours of gallery exhibitions and the collection storage facility are available throughout the year. An annual juried student art exhibition is presented every spring semester, and students research and write about artists and works of art for exhibitions and course projects.

The gallery serves the needs of the University community as well as audiences that include students and faculty from primary and secondary schools and colleges, visiting scholars and others. In addition, the programs and activities of the gallery serve as an academic and cultural resource for northern New York. The Richard F. Brush Art Gallery strives to be recognized professionally for excellence in all aspects of its operations and maintains legal and ethical standards prescribed by the American Association of Museums.

Commons College

Commons College is a voluntary academic-residential community created by students in 1984. Students share a common residence in a coeducational wing of Sykes Hall, and, with the help of a faculty member, they develop an academic course each semester. Community service is also an integral part of Commons, and students in the program organize and participate in their own community service projects. They also elect their own coordinators and form their own residential and academic committees. Those successfully completing the Commons course receive one-half course credit for each semester. Members of

Commons also participate in a variety of extra-curricular activities. Unless exempted by the faculty advisor, students enrolled in the course must live in the residence. Commons College accepts applications in the spring semester.

Additional upperclass colleges can be formed; the associate dean of the first year will assist all interested students and faculty in such arrangements.

Service Learning Center

The Service Learning Center provides students with opportunities to learn by engaging with and serving the community.

The director of service learning coordinates a full-credit course, Non-departmental 200, in which students spend eight hours a week at a community agency, dealing with such problems as poverty, illiteracy, domestic violence, environmental degradation, etc. Students in the course also reflect on these experiences in a research paper, a journal and a series of classroom workshops. See the non-departmental section of the *Class Schedule* for further information. The center also acts as a clearinghouse for information on service-learning opportunities in other departments and on non-curricular volunteer opportunities on campus, in the North Country and nationally and internationally.

Outdoor Studies

The outdoor studies program at St. Lawrence University encompasses three constituent entities: the outdoor studies minor, the Adirondack semester and the outdoor program. The outdoor studies minor is a multidisciplinary approach to the study of nature and human relationships to nature, one that brings together scientific inquiry, ethical analysis, self-reflection, literary and artistic representation, political theory and direct experience with community dynamics. The outdoor studies minor uses outdoor settings and activities to promote academic goals. The Adirondack semester offers students the opportunity to immerse themselves full-time in the natural world.

Adirondack semester students have the chance to experience and reflect critically upon alternative perceptions of how to live responsibly, not just as global citizens of the human community, but as interconnected parts of the global ecosystem. The outdoor program cultivates emotional and intellectual growth by teaching outdoor skills and by facilitating experiences in the outdoors for classes and other campus groups. While the outdoor program teaches skills and develops leadership directly, the outdoor studies minor develops these as byproducts of its academic activities in the outdoors. Both seek to foster experiential learning and concern for the natural world.

Program Objectives

With differing emphases, the three components of the outdoor studies program promote the following objectives:

Stewardship: The program seeks to enhance understanding of the ways humans have related to nature, and have thought about their relations with nature, in different times and places. It seeks also to increase awareness of the many benefits of intimate contact with wild nature; to increase introspection about our own relations with the natural world; to prepare students to make responsible decisions about the fate of wild nature that increasing technological power has thrust upon the human race.

Links between the outdoors and the classroom: The program employs the power of experience in outdoor activities to foster student growth and learning.

Leadership: Using the challenges of outdoor activities, the program seeks to foster the knowledge and inclinations necessary for effective and responsible leadership in a modern setting.

Lifelong skills and interests: The program seeks to enable students to become self-confident, knowledgeable and ecologically responsible participants in outdoor activities.

The Outdoor Program

The outdoor program offers skills training and outdoor leadership development through group, class and individual exploration of the natural world.

The outdoor program currently has four main emphases:

Skills: The outdoor program offers instructional opportunities for students to develop outdoor skills. *Clinics* are designed to introduce participants to an outdoor skill or activity. They are usually held on campus and are scheduled to accommodate students' class schedules, typically in the afternoon or on a weekend day. *Courses* are designed to provide students with in-depth and thorough instruction aimed at giving participants proficiency in the skill area. Courses typically take place in the Adirondacks, involve at least one overnight experience and occur on the weekend. *Extended courses* are designed to offer unique, expedition experiences and instruction for technical and higher-skill activities. These courses are multi-day trips during school breaks and can take place anywhere in the world.

Guide service for academic support: Logistical, material and personnel support are provided to academic classes wishing to use natural settings in their curricula. The outdoor program offers a large selection of outdoor equipment for group use, as well as trained student guides to lead safe excursions.

Outdoor leadership training: A semester-long course in outdoor leadership is offered to students who want to work in the field of outdoor education. The course focuses on leadership, decision-making, risk management, outdoor technical skills and safety. The course incorporates class sessions, field sessions and a six-day field experience in the Adirondacks. Certifications in CPR, wilderness first aid and basic water safety are obtained through the course. In addition, students who successfully complete the course are able and encouraged to take the New York State Guide exam and become licensed. Currently the course is taught as a staff-training program for outdoor program staff.

Leadership and team building opportunities: The outdoor program seeks to develop personal responsibility and leadership skills, including planning, judgment and knowledge of group dynamics. It operates an extensive low and high ropes "challenge course" designed to give campus and community groups a dynamic and exhilarating method of enhancing teamwork, communication and self-knowledge. Using student facilitators, the outdoor program offers programs for campus groups and off-campus groups. Other leadership and team building programs can be custom-designed to meet specific objectives.

The outdoor studies minor is described further as a course of study in this *Catalog*. The Adirondack semester is described further as a program in International and Intercultural Studies in this *Catalog*.

Requirements for Graduate and Professional Schools

Students who decide to pursue graduate study should make their intentions known to their academic advisors and the director of career services and leadership education as early as possible in their undergraduate careers. Applications to graduate and professional schools are typically submitted between December and March of the senior year, with the exception of medical school. These applications are due the summer following junior year. Preliminary identification and discussion of appropriate programs of study should be undertaken in the junior year. At that time, students should also begin to research fellowship and scholarship programs available in support of graduate study. Publications on graduate programs and fellowship and scholarship opportunities are available in the library and the office of career services and leadership education. Information about specific fellowship and scholarship programs is available on the career services and leadership education Web page at <http://web.stlawu.edu/career/fellow.htm>.

Application to graduate or professional school usually requires the submission of the following: a statement of academic purpose and experience, three to five letters of recommendation, undergraduate academic transcripts and a report of graduate admissions examination scores. The statement of academic purpose is an important component of the application. Students are encouraged to submit a draft of their statement to their academic advisor(s) for review and revision prior to its inclusion in the application packet. Students are also urged to solicit letters of recommendation from faculty and advisors well before the application deadline date; letters might be requested during the sophomore and junior years in anticipation of application to graduate school.

Students should also prepare to take the specific achievement or aptitude examination if required for admission to their program of study. Office of career services and leadership education personnel can provide general information about these tests and apprise students of available test preparation and practice materials. Inquiries about specific examinations and their test dates and requests for application materials should be directed as follows:

- *Graduate Record Examination (GRE)*—Office of Career Planning
- *Law School Admission Test (LSAT)*—Chair, Pre-Law Committee
- *Graduate Management Admission Test (GMAT)*—Economics Department
- *Medical College Admission Test (MCAT)*—Chair, Health Careers Committee
- *Dental Admission Test (DAT)*—Chair, Health Careers Committee
- *Optometry College Admission Test (OCAT)*—Chair, Health Careers Committee
- *Veterinarian Admission Test (VAT)*—Chair, Health Careers Committee

Some of these examinations are electronic and some are paper and pencil. Some tests are administered locally; all are administered regionally. Application must be made at least one month prior to the examination date.

Pre-Professional Programs

Medical, Dental, Veterinary

Undergraduate programs of study at St. Lawrence lead to professional training in medicine, dentistry, optometry, podiatry, nursing, physical therapy and veterinary medicine. Arrangements may be made to enter an accredited health professional school upon the completion of 24 course units at St. Lawrence. In these cases, St. Lawrence University will award the bachelor's degree upon graduation from the professional school and on further condition that all distribution requirements prescribed by the University have also been fulfilled. Medical, dental and veterinary medical schools, however, are increasingly advising students to complete the four-year college courses before beginning their professional training.

The courses required by most medical and dental schools are:

- General biology (Biology 101, 102)
- General chemistry (Chemistry 103, 104 or 105)
- Organic chemistry (Chemistry 221, 222)
- English (two 200-level courses)
- College physics (Physics 103, 104 or 151, 152)

These courses should be completed before the student takes the Medical College Admission Test (MCAT) or the Dental Admission Test (DAT).

In addition, a number of medical schools recommend one or two semesters of mathematics, with some schools requiring calculus. Most veterinary schools require biochemistry and microbiology in addition to the requirements listed for medical and dental schools.

For students interested in medical school, St. Lawrence has an Early Assurance Program with the College of Medicine of the SUNY Upstate Medical University at Syracuse. With this program, sophomores may be eligible for a guaranteed admission into medical school after the completion of their senior year. Students can also apply to the Early Assurance Program at the College of Medicine at SUNY Buffalo.

For students interested in dental school, an Early Assurance Program at the SUNY Buffalo School of Dentistry is available. In this program, sophomores may be eligible for a guaranteed admission into this dental school after completion of their senior year.

Students interested in health careers should also use their time at St. Lawrence to gain as much in-depth experience as possible in the humanities and social sciences. For further advice, consult the department of biology or chemistry or any member of the health careers committee.

Law Programs

A four-year course of liberal arts study at St. Lawrence, including the usual distribution and major requirements, is an excellent foundation for law school. There is no formal pre-law curriculum and law schools require no particular major. Students interested in law should acquire a good general education, demonstrating achievement in serious and substantial courses.

Students are advised to take foundation courses in all aspects of liberal education – humanities, science, social science – and to study basic economics, accounting, the legal and governmental systems of their own country and expository writing.

The pre-law advisor provides group briefings for students at all levels of preparation. Students should attend these briefings before scheduling individual appointments with the advisor, who offers courses on law and courts in the United States, constitutional law and environmental law and politics.

Seminary Programs

Students who wish to attend seminary to prepare for the ministry, priesthood or rabbinate should take a broad range of courses in the liberal arts and sciences: English composition and literature; philosophy and religion; history; social and natural sciences. Work in a modern language—French, German or Spanish—and/or in Greek, Hebrew or Latin is also desirable. Enrollment in at least one course that is designated “service-learning” is highly recommended, as is a semester on one of the University’s interna-

tional or off-campus domestic programs. Interested students may consult with the University chaplain.

Education Programs

St. Lawrence University offers undergraduate courses that prepare students for teaching in public and/or private schools. The University is in the process of re-registering its programs with the New York State Education Department leading to initial and/or professional teaching certification for New York State. Under the new requirements of the New York Board of Regents, effective in February 2004, students completing required undergraduate study in education will be eligible for initial certification in New York and comparable initial certification in all reciprocating U.S. states and Canadian provinces. See the education department section for details.

St. Lawrence is also in the process of re-registering its graduate programs in teaching, educational administration and counseling and development leading to initial and/or professional New York certification in those fields and comparable certification in other states and provinces. Because New York’s regulations for certification are changing, information and advice should be obtained from the St. Lawrence University education department. For details about the University’s graduate programs, including the post-baccalaureate teaching certification program, the master’s degree and the certificate of advanced study, see the *Graduate Studies Catalog*, available from the education department.

Basic Engineering Combined Plan

Students can combine a liberal arts education with an engineering degree through St. Lawrence’s combined engineering program with seven engineering schools (Clarkson University, Columbia University, Rensselaer Polytechnic Institute, University of Rochester, University of Southern California, Washington University and Worcester Polytechnic Institute). The most popular option is the 3+2 plan, in which a student spends three years at St. Lawrence and two years at the engineering school, and

graduates with a bachelor's degree from each institution; 4+2 programs are also available, as well as 4+1 in special cases.

All regular distribution and graduation requirements, as well as those requirements established by the student's major department under this program, must be met prior to enrolling in an engineering school.

A minimum of 25 semester units must be earned at St. Lawrence. Grades lower than 2.0 will not be acceptable for the minimum 25 semester units.

Some engineering schools may have additional requirements. Please consult the basic engineering liaison officer for details.

In addition to the requirements above, the following courses, none of which can be taken on a pass/fail basis, must be completed:

- Chemistry 103, 104
- Physics 151, 152 (many engineering schools will not give credit for Physics 103, 104 taken at St. Lawrence)
- Calculus sequence (Mathematics 135, 136, 205)
- Mathematics 230
- Computer Science 140 or 219

Additional courses are recommended for certain engineering disciplines, for example:

- For mechanical engineering: Physics 307 and 333.
- For electrical engineering: Physics 307, 308, 333 and a course in electrical circuits available through cross-registration.
- For environmental engineering: Chemistry 221, 222 and Biology 101, 102.
- For chemical engineering: Chemistry 205, 221, 222, 341, 342, and 351 or 352.

Students entering St. Lawrence with the intention of pursuing the 3+2 engineering program should make known their interest to the program liaison officer, who can provide assistance in meeting these requirements. Students must satisfactorily complete a program that is approved by both the liaison officer and a major department to be certified for admission to the chosen engineering school. Information

about additional special requirements of individual engineering schools is available from the liaison officer.

Financial aid from the engineering schools for the final two years is generally need-based for United States citizens. International students should be aware that many schools offer no assistance to them, and none provide anything near full scholarships for even the most needy international students.

Pre-Management Programs

Many St. Lawrence students choose to pursue graduate programs in management or careers in business. Majors from any discipline may complete the pre-management program at St. Lawrence, which combines an individually tailored course of study with career building programs and leadership/skills development.

The program consists of three components: (1) academic course work; (2) career-building programs; and (3) leadership and skills development.

The *academic component* consists of six required courses with two electives. The required courses are:

- Psychology 100 (101)
- Economics 101 and 102 *or*
- Economics 100 and 251 or 252
- Accounting 201
- Mathematics 113 *or*
- Economics 200
- Mathematics 135

The elective courses are to be chosen from the following list:

- Economics 305
- Economics 307
- Economics 309
- Economics 313
- Government/History 217
- Government 302
- History 315
- Mathematics 136
- Mathematics 213
- Computer Science 140
- Psychology 313
- Religious Studies 262

- Sociology 318
- Sociology 319
- Speech and Theatre 111
- Speech and Theatre 211
- Marketing 320*
- Management 331*
- Management 386*

*Available through cross-registration at Clarkson University.

Career-building programs, designed to provide practical experience in the workplace, are accomplished in several ways:

- *Internships* are a mandatory workplace experience that can be completed during the semester, over a winter recess or in the summer. The office of career services and leadership education will help each student design an internship that is pertinent to his or her career goals.

- The *Shadow-a-Saint* program, in which each student spends a day with a St. Lawrence graduate at his or her work place, takes place over winter recess.

- Participation in the *Professionals-in-Residence* program is also required. Students meet with guest residents and participate in discussions and seminars.

- Additionally, each student is encouraged to find an off-campus career advisor.

Leadership and skills development encourages students to seek leadership positions in campus organizations and to participate in the leadership training programs offered by the office of student life. Also, students are expected to take advantage of computer skills workshops offered by the University.

Upon graduation, students who have completed the program requirements receive a letter and certificate summarizing the program and describing their individual accomplishments.

The 4 + 1 MBA Programs

St. Lawrence University has agreements with the graduate schools at Clarkson University and Rochester Institute of Technology that al-

low students to plan their undergraduate program to include courses that serve as foundation courses for graduate study. Students must complete a regular undergraduate major and meet prescribed admission standards in addition to the foundation courses. Those who are admitted can expect to complete the requirements for the MBA degree in one year rather than the usual two or more. In addition, applicants with outstanding academic records will receive a prompt decision concerning admission and financial aid. Preliminary inquiries concerning these programs may be made by consulting with the pre-management coordinator.

Army and Air Force Reserve Officer Training

Both Army and Air Force Reserve Officer Training Corps (ROTC and AFROTC) programs at nearby Clarkson University in Potsdam, NY, are open to St. Lawrence University students. For more information, contact the ROTC office at 315-268-7705 or the AFROTC office at 315-268-7989.

Summerterm

The University operates a diverse academic summer program that includes both undergraduate and graduate courses. Two five-week undergraduate sessions feature a variety of courses, including special summer field courses that make use of the local environment. The education department conducts two graduate sessions of three weeks each; the curriculum is especially valuable for educators and others in the helping professions. Approximately 400 students enroll in the summer academic program.

In addition to the academic sessions, several conferences and youth programs are held on the campus. More than 1,000 young adults participate in sports schools during the summer.

Further information may be obtained from the associate dean for academic administration.

Inventory of Registered Programs¹ As of January 1, 2002

Program Title	Degree	Code	HEGIS
<i>Bachelor of Arts/Bachelor of Science Programs</i>			
African Studies–Anthropology	BA	21401	2299
African Studies–Economics	BA	21402	2299
African Studies–Government	BA	21400	2299
African Studies–History	BA	21399	2299
Anthropology	BA	83565	2202
Anthropology/Canadian Studies	BA	19102	4903
Biology	BS	09784	0401
Biochemistry	BS	25090	0414
Biophysics	BS	09786	0415
Chemistry	BS	09810	1905
Computer Science	BS	22059	0701
Economics	BA	09817	2204
Economics/Canadian Studies	BA	81114	4903
Economics/Mathematics	BA	83566	2299
Economics/Mathematics	BS	83567	2299
English	BA	09800	1501
English/Canadian Studies	BA	81118	4903
Environmental Studies	BA	22863	0420
Environmental Studies/Anthropology	BA	19100	0499
Environmental Studies/Biology	BS	89035	0499
Environmental Studies/Chemistry	BS	89036	0499
Environmental Studies/Economics	BA	89039	0499
Environmental Studies/English	BA	22613	0499
Environmental Studies/Geology	BS	89037	0499
Environmental Studies/Government	BA	89040	0499
Environmental Studies/Philosophy	BA	19101	0499
Environmental Studies/Psychology	BS	89038	0499
Environmental Studies/Sociology	BA	89041	0499
Fine Arts	BA	09792	1001
Fine Arts/Canadian Studies	BA	81115	4903
French	BA	09795	1102
Geology	BS	09812	1914
Geophysics	BS	09813	1916
German	BA	09797	1103
Global Studies	BA	22915	0399
Government	BA	09819	2207
Government/Asian Studies	BA	86043	2299
Government/Canadian Studies	BA	81113	4903
Government/Work and Society	BA	86040	2299
History	BA	09818	2205
History/Asian Studies	BA	86044	2299
History/Canadian Studies	BA	81112	4903
History/Work and Society	BA	86041	2299
Mathematics	BS	09806	1701
Mathematics–Computer Science	BS	85373	1799
Modern Lang & Lit/Canadian Studies	BA	81117	4903
Multifield Program	BA	78014	4901
Multifield Program	BS	78015	4901
Multi-Language Major	BA	80026	1199
Music	BA	09793	1005
Neuroscience	BS	25089	0425
Philosophy	BA	09802	1509
Physics	BS	09807	1902
Psychology	BS	09815	2001
Religious Studies	BA	09803	1510
Religious Studies/Asian Studies	BA	86045	1599
Religious Studies/Canadian Studies	BA	19103	4903
Sociology	BA	09820	2208
Sociology/Canadian Studies	BA	81116	4903
Sociology/Work and Society	BA	86042	2299
Spanish	BA	09798	1105
Speech & Theatre	BA	79187	1007

Preparation for Teacher Certification Programs (Prov.)

Art “K-12” Teacher	BA	09790	0831
Biology “7-12”	BS	09785	0401.01
Chemistry “7-12”	BS	09811	1905.01
Earth Science “7-12”	BS	09814	1917.01
English “7-12”	BA	09801	1501.01
French “7-12”	BA	09794	1102.01
German “7-12”	BA	09796	1103.01
Mathematics “7-12”	BA	01412	1701.01
Mathematics “7-12”	BS	10098	1701.01
Physical Education Teacher “K-12”	BS	09791	0835
Physics “7-12”	BS	09808	1902.01
Social Studies “7-12”	BA	09816	2201.01
Spanish “7-12”	BA	09799	1105.01

Master’s Level

Education, General	M.Ed	76095	0801
Counseling and Human Development	M.Ed	09787	0826.01
(Cert: School Counselor – Prov/Perm)			
School Psychology	MA	09788	0826.02
(Cert: School Psych – Prov/Perm)			
School Administrator and Supervisor	M.Ed	09789	0828
(Schl Admin & Sup – Perm)			

¹The programs listed in this table have been approved by the New York State Department of Education at St. Lawrence University. Not all programs continue to be offered. Enrollment in other than registered or otherwise approved programs may jeopardize a student’s eligibility for certain student aid awards.

International and Intercultural Studies

St. Lawrence University has a strong commitment to the values of cross-cultural academic opportunities. Off-campus study, whether international or domestic, permits students to expand their academic experience in diverse settings.

St. Lawrence offers approved international programs in Australia, Austria, Canada, Costa Rica, Denmark, England, France, India, Italy, Japan, Kenya, Spain and Trinidad. In addition, the International Student Exchange Program (ISEP) allows students to study at any of 100 universities on six continents. In the U.S., students can study in Washington, D.C., at Fisk University, a distinguished, historically Black university in Nashville, Tennessee, or on the Adirondack Semester. Some of these programs extend over a full year, others a semester. All programs foster cultural immersion, usually through homestays and language study, and where possible through internships or community service.

Off-campus study is an opportunity open to sophomore, junior and senior students with appropriate academic preparation, motivation and interest in the relevant area. Students in all major fields can participate in off-campus programs; some programs have distinctive curricular strengths, but all are designed to enable students with a variety of interests to benefit from the experience of living and studying in a different cultural setting. Students on social or disciplinary probation are not eligible to apply or participate. Second-semester seniors must petition to participate.

Admission to programs is based on the quality of application. Candidates must present a coherent academic rationale for participation in a particular program and a record of academic performance that demonstrates ability to meet the challenges of off-campus study. Normally, this means a GPA of at least 2.8, but the selection committees consider closely the candidate's rationale for participation and academic record as a whole. Candidates for off-campus programs must also present evidence of maturity, responsibility and cultural sensitivity.

Students should check with the center for international and intercultural studies for specific requirements and deadlines for each program.

St. Lawrence admits students from other colleges into the France, Kenya, London and Spain programs. Matters such as financial aid and course credit are arranged by these individuals with their home colleges.

The programs listed are designated as "St. Lawrence Programs." St. Lawrence students pay regular comprehensive fees to attend and receive their usual financial aid. Transportation to the off-campus site is additional, except for the India and Costa Rica programs. Except in the case of ISEP, grades earned count in the student's grade point average.

The calendar for the off-campus programs approximates that of the University academic calendar, except in the cases of Australia and ISEP. However, each program is slightly different, and some start earlier or end later than the corresponding campus semester.

Students wishing to study on a non-St. Lawrence University program should discuss their interest with the coordinator of off-campus programs. The application to the program itself must be accompanied by an application for study on a non-SLU program. These applications are reviewed by the international education advisory committee.

Successful applicants must have a strong academic record in general and must indicate how the program selected serves particular academic interests; the applicant must show evidence of academic preparation for the program. In addition, the application should show evidence of the student's capacity for independence, self-reliance and maturity. If the non-SLU program is located in a country where SLU maintains a program, the student must make an exceptionally strong case that his or her academic interests are significantly better served by a different program.

Students approved for study on a non-SLU program do not receive St. Lawrence University financial aid; while credit is granted, grades for such studies are not recorded on the transcript. Students are responsible for getting prior approval from the appropriate department chairs for courses to be taken off-campus. Students who attend a program abroad without the approval of the international education advisory committee will be assumed to have withdrawn from the University. On appeal they may be able to transfer a maximum of one unit.

Students wishing to study at a foreign institution or on a non-SLU study abroad program during the summer should consult with both the office of international and intercultural education and with the registrar to arrange for transfer credit for summer school.

Australia

Semester Program

(established in 1997)

The semester program in Australia is particularly appropriate for students interested in indigenous studies, marine biology, biodiversity, Asian studies, tropical ecology and anthropology. Students enroll directly in courses at

James Cook University in Townsville or in Cairns, Australia. In addition to a required Australia-focused course, students select courses that are relevant to their majors. A 3.0 GPA is required for this program. Students stay in on-campus residence halls.

Austria

Semester in Vienna

(established in 1967)

The Vienna semester provides a program in spring semesters only. Its focus is "The New Europe: Promise and Perils." One semester of German is a prerequisite.

All classes are taught in English except for the required German language course. Three additional units are selected from offerings in fine arts, government, economics, psychology, history, environmental studies and music. Instructors are local professors, fluent in English and highly qualified in their fields. Classes are held at the Austro-American Institute of Education in central Vienna.

Students gain an intimate understanding of Viennese life by living with Austrian families. Several group excursions are organized in Austria. Study tours of Poland, the Czech Republic and Germany are also included in the program.

Canada

Semester or Full-Year Program

(established in 1977)

St. Lawrence students have the choice of living in one of four major cities in Canada and studying at one of the following universities: McGill University in Montreal, Université Laval in Québec City, Carleton University in Ottawa or the University of Toronto. To study at Laval, students must have intermediate level competency in French. Students live in student housing at these universities.

Costa Rica

Semester Program

(established in 1992)

Students have two programs from which to

choose in Costa Rica—one in San José and the other in rural Golfito. Both programs enable students to live with Costa Rican families and to experience the cultural and geographic diversity of Central America. The programs complement St. Lawrence's Caribbean and Latin American studies minor, and are open to students from all majors who have taken the appropriate level of Spanish.

The Golfito program, which requires four semesters of college-level Spanish or the equivalent, is designed for students interested in tropical ecology, environmental studies, Latin American culture and anthropology. The program offers a limited number of classes with strong emphasis on field work. All courses are taught in Spanish. Students are encouraged to participate in community volunteer work during the semester. The San José program begins in early July with a four-week orientation course that includes Spanish writing projects, lectures on the history and culture of Costa Rica and extended field trips. Students take the remaining courses at the Universidad de Costa Rica when classes begin in August. Students must have five semesters of college-level Spanish or the equivalent to be eligible.

Denmark

Semester in Copenhagen (established in 1980)

The Denmark International Study (DIS) program offers concentrations in international business, environmental studies, European studies, marine biology and ecology, medical practice and policy, multicultural education and pre-architecture. In addition, it offers a broad selection of courses in the humanities and social sciences. Each concentration integrates classroom teaching with field study tours, which take students to various sites in Denmark and Europe. Students take a required course in Danish and four electives. Classes are taught in English by Danish professors. Students interested in Russian studies will find Russian language, literature, history and culture courses available on this program as well as on a one-week field study tour to Russia.

England

Semester in London (established in 1978)

The semester in London provides students with an opportunity to become familiar with the rich intellectual and cultural life of this cosmopolitan city. The program is open to students in all majors; however, applicants must demonstrate some academic preparation specifically for this program. Courses offered on the program include history, government, economics, theatre, fine arts and a required core course on British culture that concludes with an internship.

Students live with families in northern London and attend classes in central London, within walking distance of many of the major museums, theatres and concert halls. British professors teach courses specially designed to take advantage, through field work, of the resources of London. The offerings include history, art, government, English and theatre. All students participate in a full-time, one-month internship in a field relevant to their interests; many do internships in publishing, theatres, galleries, museums, public service agencies, politics, environmental groups and international banks.

Students on the program may attend at least 15 theatrical productions. They take field trips to such places as Brighton, Bath, Stonehenge, Liverpool and Canterbury.

France

Semester and Full-Year Program (established in 1964)

The program in France is designed to strengthen students' language skills and introduce them to a variety of French and francophone communities. After a four-day orientation in Paris, students spend two weeks with families in small villages north of Rouen, sharing the routines of these rural communities. Students then move to the provincial town of Rouen, about 75 miles northwest of Paris where, once again, students are

placed with French families with whom they will spend the rest of the semester/year as they take courses.

All of the courses are taught in French by professors from the University of Rouen, and the courses are intended solely for students on this program. They include a range of humanities and social science courses with French society and culture as the focus. The program director offers a .5 unit course that provides the context for numerous field trips and tours to such places as Paris, Mont St. Michel, Chartres, the Normandy beaches and (in the spring) to Provence. Another .5 unit course is offered on Francophone Africa, required for students who join the excursions (in the fall) to Senegal and (in the spring) to Tunisia. This excursion includes a homestay as well.

Students electing the year-long program spend January in an internship related to their interests. Intermediate level proficiency in French is required for this program. Students with advanced language proficiency may elect courses in the University of Rouen. A somewhat different program is planned for spring semester. Students should check with the international studies office or the French department for details.

India

Fall Semester Program

(established in 1990)

The semester in India program is designed to utilize field settings and important sites to introduce students to India in its varied manifestations—the richness of its history, philosophy and culture; the diversity of its peoples and languages; the complexity of its economic, social and political processes. This program involves 18 weeks of academic work and travel in India beginning about August 15 and ending about December 15.

Students arrive in Delhi for a week's orientation before moving for five weeks to Mussoorie, a hill station in the Himalayan foothills, for intensive study of Hindi and field trips to nearby cultural sites. Next the group moves

to Delhi for a week before heading for a five-week stay in Jaipur, capital of the northwest desert state of Rajasthan. In Jaipur, students live in homestays, pursue individual research projects and take courses on Hindi, Indian history and culture. Following this, the group spends two weeks in the holy city of Varanasi on the Ganges River, and then concludes the program in Delhi.

Students earn credits in Hindi language, history, anthropology and the field of their independent project, which must be worked out and approved by the relevant department or program in advance.

Italy

Fall Semester Program

(established in 2000)

The semester in Italy is run in conjunction with Syracuse University and draws upon the exceptional materials available in Florence for the study of fine arts and Italian and European cultural history. Students live with Florentine host families and take a required Italian language course to further their cultural immersion. The extensive curriculum includes courses in studio arts for students with appropriate credentials as well as courses in art history, cultural studies and numerous offerings in the social sciences. All of the fine arts courses include field study at Florentine museums such as the Uffizi, the Galleria Palatina and the Pitti Palace, as well as field trips outside of Florence. Applicants should have appropriate preparatory courses in the fine arts or in Italian.

Japan

Semester and Full-Year Program

(established in 1983)

St. Lawrence requires all of its students enrolled in the program in Japan to study the language while abroad.

Nanzan University

Students enrolled at Nanzan University in the city of Nagoya study at the Center for Japa-

nese Studies, which offers humanities, business, social science and Japanese arts courses in English, as well as Japanese language courses. The center accepts St. Lawrence students for one or two semesters. Students stay with Japanese families. They can participate in planned cultural excursions and travel on their own. Students must have two years of college-level Japanese to apply.

International Christian University (ICU)

International Christian University operates on a trimester system. Students enroll for the full academic year. Located in Tokyo, ICU is a non-denominational school of about 2,100 students, 200 of whom are non-Japanese. The entire campus has a strong international orientation. It offers a somewhat wider range of courses in English than does Nanzan, including courses in the natural sciences, humanities and social sciences. St. Lawrence students live on campus in student dormitories or off campus with Japanese families. Students must have one year of Japanese to apply.

Kenya

Semester in Nairobi

(established in 1974)

The Kenya semester provides students with both formal instruction and experiential learning in African studies. Students have opportunities for direct observation and examination of a number of contemporary issues across several broad areas: African cultures, social and political change, economic development and environmental diversity. Students must have taken one African studies course to apply.

Four major components have been developed to provide breadth of experience. (1) Two academic courses are mandatory—the first in Kiswahili, the national language, and the second on the culture, ecology and development of East Africa. Students choose two other electives from courses in modern Kenyan history, critical issues in socio-economic development in Kenya, African religions and philosophies and wildlife conservation and ecology in

East Africa. (2) Field components are integrated with classroom work so students learn practical approaches to broad processes of biodiversity, sustainable development and democratization. (3) Individual homestays with diverse ethnic groups in rural-agricultural, rural-pastoral and urban settings provide direct interaction with Kenyan individuals, families and communities. (4) An independent field study component during the final month enables students to put their semester's learning experiences into an individually selected, more focused context.

When not engaged in homestays or field components, students reside at the St. Lawrence University Study Center, a five-acre facility in the suburb of Karen, approximately 12 kilometers from the capital city of Nairobi.

Spain

Semester or Full-Year Program

(established in 1967)

The program in Spain is designed to provide students with an understanding of both urban and rural life. A semester option is offered as well as the traditional full-year program. Students must have completed a third-level Spanish course (201, 202, 203). The program is centered in Madrid. The full-year program encompasses three phases: a homestay in a village in the province of Segovia; two semesters of classroom instruction; an internship. The fall semester option includes the Segovia homestay and one semester of classroom instruction. The internship is not offered for the fall semester. The spring semester option includes a homestay in La Mancha and one semester of classroom instruction. For spring semester students only, an optional internship is offered at additional cost after completion of the program in mid-May.

Classes are held at the Colegio Mayor Isabel de España, a student residence near the Complutense University of Madrid. Courses are available in such fields as art, history, government, environmental studies, economics, Spanish language and literature. The only required class is a half-unit course each semester in the

Spanish language. All classes are taught in Spanish by faculty members of universities in Madrid.

Every student lives with a Spanish family in Madrid, one student to a family. The homes are located throughout the city and vary in background and makeup. The program also includes field trips to many different parts of Spain.

Trinidad

(established in 1999)

The Trinidad Program is offered in affiliation with Pacific Lutheran University and is available only in the spring term. The curriculum introduces students to the highly multicultural history of the island nation of Trinidad and Tobago. The program begins with a one-month course focused on a particular aspect of Trinidadian culture (music, literature, etc.) and a field excursion to Tobago. In February students enroll in two courses of their choice at the St. Augustine campus of the University of the West Indies in Port of Spain, Trinidad. In addition, students take an interdisciplinary course on Caribbean culture and society, organized by the program director and incorporating guest lectures, field excursions, community service work, participation in cultural festivals and a short homestay. Students are housed at Caribbean Lodge, a guest house within walking distance of the UWI campus. There are only five spaces reserved for St. Lawrence students on this program. Applicants must have taken at least one course in Caribbean and Latin American studies.

U.S.A.

Washington Semester Program

(established in 1974)

St. Lawrence students study in Washington in affiliation with American University. Because of independent study components, the program is best suited to second-semester juniors and seniors. Students choose from seminars in American national government and politics, international business and trade, public law, economic policy, foreign policy, justice, museum studies and journalism, all of which in-

clude seminars, research projects and internships. Classes are taught and internships supervised by professors at American University. Dormitory housing for program participants is also provided by American University.

Semester at Fisk University

(established in 1989)

St. Lawrence has an exchange program with the historically Black Fisk University, whereby Fisk students attend St. Lawrence each fall and St. Lawrence students attend Fisk each spring. The program provides students the opportunity to immerse themselves in African-American culture and history. Students should have taken at least one course dealing with African-American subject matter before applying to the program.

Adirondack Semester Program

(established in 2000)

An academic program designed after the model of our other semester abroad programs in another culture such as London, Madrid, Rouen or Copenhagen, the Adirondack Semester offers students the opportunity to immerse themselves full-time in the natural world. Students will have the chance to experience and reflect critically upon alternative perceptions of how to live responsibly, not just as global citizens of the human community, but as interconnected parts of the global ecosystem. Students will be based in a remote Adirondack camp without cars, television or alcohol. Two extended expeditions and frequent field trips will be part of the four courses bearing University credit: (1) Natural History of the Adirondacks, (2) Creative Expressions of Nature, (3) Cultural History of the Adirondacks and (4) Philosophies of Nature. These four courses may be applied toward the outdoor studies minor. Students will also participate in a variety of non-academic extracurricular activities such as boat building and trail maintenance as well as the traditional outdoor program activities of rock climbing, kayaking, backpacking, canoeing, map and compass navigation and back country first aid. Offered in the fall semester.

Courses of Study

The courses listed in this *Catalog* reflect, as accurately as possible, what the University typically and normally offers. Because changes in academic programs and staffing inevitably occur, no guarantee can be made that a particular course will be offered in a given semester or year. Moreover, each semester many departments offer special courses that are not listed in this *Catalog* because they are not normally part of the curriculum. The *Class Schedule*, published by the registrar for each semester, is a more accurate list of what is expected to be offered in that semester.

Courses are for one credit unit per semester unless otherwise noted. Each full unit is equivalent to 3.6 semester hours.

Courses that satisfy distribution requirements (see the Curriculum chapter) are indicated in each semester's *Class Schedule*.

Classes are held Monday through Friday; each full one-unit course normally meets three hours per week. Some courses having laboratories, studios or recitation sections may meet for more than three hours per week.

The normal course load consists of four units per semester. All new students matriculating at St. Lawrence are required to take 33.5 course units for graduation. Students should consult the registrar for information about possible charges for overload course registrations.

In most departments and programs of study, able students may undertake special projects or enroll in seminars. For more information, consult the chair of the department or program coordinator and the *Class Schedule*.

Requirements concerning majors, minors, tutorial work and comprehensive examinations in the various departments and programs are included in this *Catalog* (see each department or program description and Major Requirements in the Curriculum chapter), or can be determined by consulting the appropriate department chair or program coordinator.

Graduate credit is offered only through the education department. Information about graduate offerings is given in the department's catalog, which is available in the department's office in Atwood Hall.

The course list that follows is organized alphabetically by department or program. The Majors and Minors Offered table provides a quick reference guide to current academic departments and programs on campus. Please consult the International and Intercultural Studies chapter for additional academic course and program information.

Majors and Minors Offered

Majors

Anthropology
 Biochemistry
 Biology
 Chemistry
 Computer Science
 Economics
 English
 Environmental Studies
 Fine Arts
 French
 Geology
 German
 Global Studies
 Government
 History
 Mathematics
 Multi-language
 Music
 Neuroscience
 Philosophy
 Physics
 Psychology
 Religious Studies
 Sociology
 Spanish
 Speech and Theatre

Combined Majors

African Studies
 Asian Studies
 Canadian Studies
 Mathematics/Computer Science

Interdisciplinary Majors

Biology/Physics
 Economics/Mathematics
 Environmental Studies with Anthropology,
 Biology, Chemistry, Economics, English,
 Geology, Government, Philosophy,
 Psychology or Sociology
 Geology/Physics

Multi-Field Major

Self-designed

Double Major

Department Minors

Anthropology
 Biology
 Chemistry
 Computer Science
 Economics
 Education
 Fine Arts
 French
 Geology
 Global Studies
 Government
 History
 Literature (English)
 Mathematics
 Music
 Philosophy
 Physics
 Psychology
 Religious Studies
 Sociology
 Spanish
 Speech and Theatre
 Sports Studies and Exercise Science
 Writing (English)

Program Minors

African Studies
 Applied Statistics
 Asian Studies
 Canadian Studies
 Caribbean and Latin American Studies
 Cultural Encounters
 European Studies
 Gender Studies
 International Literature
 Multi-Field
 Native American Studies
 Outdoor Studies

African Studies

Combined major and minor offered

Professors Alden (English), Blewett (economics), Cornwell (philosophy), Pomponio (anthropology), Udechukwu (fine arts); **Associate Professors** Barthelme (anthropology), Farley (music), Lloyd (history), Nouryeh (speech and theatre), Nyamweru (anthropology); **Assistant Professor** Malaquias (coordinator; government); **Instructor** Mahero (Kiswahili); **Kenya Semester Program Acting Director and Assistant Professor** Ntarangwi and faculty members at universities in Kenya.

The African studies program seeks to stimulate and enhance a comprehensive knowledge of historical and contemporary issues of the African continent. To this end, the program comprises a multidisciplinary curriculum, research, special performances and lectures. St. Lawrence maintains a study abroad program in Kenya and offers undergraduate scholarships and a teaching fellowship for graduate training in education students from Kenya.

The African studies program offers a minor and combined majors with anthropology, economics, government and history.

Courses in African studies support the University's Kenya Semester Program. Students interested in applying for this program should plan to complete an introductory course in African studies (AFS 101 or 102 are especially recommended) before applying. Interested students should discuss their academic plans with the coordinator as well as with the office of international studies. Most students who complete the Kenya Semester Program can readily complete a combined major or minor in African studies and are encouraged to do so; participation in this program is not required, however, for the combined major or minor.

Specialization in African studies is designed to foster knowledge about Africa through an organized plan of study; to promote understanding of the diversity of African peoples and societies; and to nurture the capacity for interdisciplinary problem-solving approaches to questions and for

independent research. Issues addressed include environmental change, economic growth with equity, development of participatory government and a strong civil society, the relationship between indigenous and non-African cultures and Diaspora black studies. Background in African studies may prepare students for graduate work in this interdisciplinary field or in international relations, for careers in international development and business, or for work in the Peace Corps and other service opportunities.

The minor consists of six African studies courses and the combined major consists of five plus requirements from cooperating departments. Students are strongly encouraged to begin with either AFS 101 or 102. They must select courses from a range of disciplines in order to ensure exposure to diverse issues and approaches. Students are required to complete a capstone course; AFS 402 (Seminar on African Development) is specially designed for this purpose. With permission from an African studies faculty member, students may instead design an interdisciplinary independent project to complete the minor; proposals must be approved by the African studies advisory board. On occasion, faculty members in African studies will offer 400-level courses in their home departments that may qualify as capstone courses for African studies. All students must have their program of study certified by the coordinator for African studies and should confirm with the coordinator at early stages that their courses represent an appropriate range and diversity. Students interested in a combined major should also consult with appropriate department chairs.

Courses Accepted for the African Studies Combined Major and Minor

AFS 101. Introduction to African Studies: History and Development.

A team-taught introduction to fundamental issues in the study of Africa, ranging from historical contexts to economic and political structures to African arts and issues of development. The value of interdisciplinary study and the challenges of moving beyond one's own framework to study other cultural systems are also discussed.

or

AFS 102. Introduction to African Studies:
Environment and Culture.

The course looks at the physical environment of Africa with a particular emphasis on distribution of water resources. Culture is approached as it relates to environment. The course examines how people of different cultures conceptualize and value water resources, how the indigenous peoples of Africa have coped with frequently variable and unreliable water supplies and the impact of some controversial water development projects on people's lives.

AFS 402. Seminar on African Development.

An interdisciplinary research seminar that focuses on the critical theme of development and requires students to produce a substantial research essay confronting a development question, using the resources and methodologies of more than one discipline. Often, students can extend their investigation of a topic first studied in Kenya.

Departmental Offerings

Anthropology

- 153. Introduction to African Studies:
Environment and Culture.
- 225. Peoples and Cultures of Africa
- 240. Environment and Resource Use in Kenya.
- 245. Women and Land in Africa.
- 255. Environmental Perception and
Indigenous Knowledge.
- 340. Development Issues in East Africa.
- 343. Famine.
- 355. African Archaeology.
- 440. Pastoralist Peoples.

Economics

- 228. African Economies.

English

- 220. Introduction to African Literature.

Fine Arts

- 215. West African Arts.

Government

- 230. African Politics.
- 364. Southern Africa in World Politics.

History

- 108. Introduction to African Studies:
History and Development.
- 265. West Africa and the Diaspora.
- 266. West Africa in the 19th and 20th Centuries.
- 363. Topics in African History.
- 479/480. Seminar in African History.

Modern Languages

Kiswahili 101,102.

Speech and Theatre

- 323. African Drama: Voices of Protest and Selfhood.

Students desiring to go on the Kenya program are strongly encouraged to take 101 before they leave. Kiswahili is a required course on the Kenya Program and is offered at various levels.

Music

- 240. Musics of the World.

Philosophy

- 332. Africana Philosophy.

Kenya Semester Courses

Kiswahili is required, as is AFS 337 (Culture, Ecology and Development in East Africa), which is offered only on the Kenya Semester Program.

Other courses offered in Kenya vary according to student demand and availability of instructors. They have included:

Anthropology

- 448. The Archaeology of Kenya.

Environmental Studies

- 348. Wildlife Conservation and Ecology.

Gender Studies

- 347. Women's Roles and Experiences in Kenya.

Government

- 337. Politics and Government in East Africa.

History

- 334. Themes in the Modern History of Kenya.
- 477. Seminar in African History.
- 478. Field Study in African Development.

Philosophy

- 370. African Religions and Philosophies.

Anthropology

Major and minor offered

Professors Perry, Pomponio (chair); **Associate Professors** Barthelme, Nyamweru.

Anthropology is the study of humanity. Its subject of study encompasses the range of human experience among the peoples of the world, and its aims are to understand what people do or have done, and why. Every aspect of human beings from their DNA molecules to their beliefs about the supernatural, in every part of the world, from the beginnings of primate evolution to the present, pose anthropological ques-

tions. Some of the most interesting of these questions remain to be answered.

For these and many other reasons, anthropology is central to the liberal arts. The anthropology program is intended to cultivate a lively curiosity about the human experience, a deeper understanding of cultures and diverse ways of life including our own. It works toward developing an informed sense of the human experience, past and present, and of the many ways of knowing, understanding and communicating. These studies encourage critical reasoning abilities and skills that promote a life of continuous learning, which are of immeasurable value in pursuing a range of careers and goals in a world in which global diversity has become, more than ever, an inescapable aspect of life.

The major program at St. Lawrence not only involves intensive study in anthropology, but also enriches the studies of students in other disciplines who wish to include anthropology courses in their courses of study. Anthropology links the social sciences, natural sciences, arts and humanities. It has always utilized insights from biology, geology, geography, history, philosophy, political science, economics, psychology and many other disciplines.

Our faculty are prepared to assist students in pursuing a range of directions in their studies within the broad field of the discipline. Our newly remodeled archaeology laboratory allows better housing of our collections of artifacts and materials for hands-on study. Our faculty, with personal field experience in Africa, Europe, Australia, the Pacific Islands and Native American communities of the Southwest, have published numerous books on cultures and human issues in different parts of the world, often addressing the interrelationships among local cultural systems and global forces.

Some of our courses are cross-listed for credit toward African studies, Canadian studies, Native American studies, environmental studies, gender studies and global studies. The department offers combined majors with African studies and environmental studies. Specific anthropology courses also fulfill the social sciences,

diversity and Cultural Encounters distribution requirements.

In recognition of the diverse approaches to the study of humanity that anthropology involves, the department offers introductory courses in each of the principal branches of the discipline: archaeology, biological anthropology, cultural anthropology and linguistics. These courses are intended for beginning students and assume no previous knowledge of the discipline. They serve as avenues to more intensive and specialized study in each of these areas. All of them, beginning from distinct sets of questions, converge on the central and fundamental issue of what it means to be human.

Outside the classroom, students are welcome to join the Anthropology Club, a student-run organization open to anyone with a strong interest in anthropology, whether or not they have declared majors or minors in it. Some of our students are members of Lambda Alpha, the national anthropology honorary society. The department also compiles information on the many archaeological and ethnographic field schools and ongoing projects open to students throughout the United States and other parts of the world.

St. Lawrence students have worked on summer excavations in New Mexico, Idaho, Montana, New York and, through one of our summer school courses, in Kenya. Opportunities are also available in Bermuda, Kenya, China and Hungary through programs with other universities. Students have also taken part in the University's Kenya Semester Program. This program, in which our faculty have been closely involved as directors, coordinators and instructors, offers a rare opportunity for anthropology students to gain intensive experience in the field. Over the years our courses have provided excellent preparations for students wishing to study abroad in St. Lawrence programs in Africa, Australia, Europe, India and elsewhere.

Major Requirements

The major in anthropology consists of nine to 12 courses. Majors must take Anthropology 101

(Introduction to Human Origins), Anthropology 102 (Cultural Anthropology) and Anthropology 205 (Language and Human Experience). There is no particular recommended sequence, but whenever possible students should plan to take these courses before taking more advanced courses in particular subfields.

At the senior level, majors must take Anthropology 420 (Views of Human Nature). This course is designed as the capstone senior seminar for anthropology majors. Majors must also take at least one additional course at the 400 level, which might be a seminar, independent study project or honors project (see below). Students should consult one of the faculty members about the latter two options. We recommend that the remaining elective courses include study in more than one geographic or topical area and preferably in at least two of the four subfields of anthropology (cultural anthropology, archaeology, physical anthropology and linguistics).

As noted above, our approach to studying humans is holistic and involves all four subfields of anthropology. It stresses not only the evolution and social life of the genus *Homo* in the past and present, but also language. For that reason, we require all anthropology majors to study a language other than their first (i.e., dominant) language, according to the following guidelines:

Students who have studied a language in high school may meet the requirement by:

- Earning a 4 or 5 on the Advanced Placement (AP) exam, or
- Taking 200-level course work in a language at St. Lawrence.

Students who have not met the above guidelines may meet the requirement by:

- Successful completion of two semesters of a language, either on campus or in conjunction with an overseas program.

Note that current distribution requirements stipulate one course in math or a foreign language. Students intending to major in anthropology may be served best by choosing a foreign language for this option. Further information is available from the department chair.

Certification to Teach Social Studies

Students seeking initial certification as a 7-12 social studies teacher in New York can major in anthropology. In addition to completing the certification minor in education, students majoring in anthropology must also take: History 102 (The 20th-Century World), 103 (Development of the United States: 1607 to 1877), 104 (Development of the United States: 1878 to present); one economics course (Economics 100—Introduction to Economics—is recommended if only one course is taken); one government course (Government 103—Introduction to American Politics—is recommended if only one course is taken); and at least *two* courses in the major that illuminate U.S. and/or world history and geography. Students are also encouraged to take courses in other social sciences and area studies to round out their preparation for teaching social studies.

Anthropology majors intending to complete student teaching in the University's Post-Baccalaureate Teacher Certification Program after graduation must complete the pre-certification minor in education (or its equivalent) as undergraduates and all of the social science requirements listed above (or their equivalents). Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Minor Requirements

The minor in anthropology consists of five to seven courses that must include at least two introductory courses: Anthropology 102 (Cultural Anthropology), either 101 (Introduction to Human Origins) or 205 (Language and Human Experience), and at least two courses numbered 300 or higher. The courses beyond the introductory level must include at least two of the major subfields (cultural anthropology, linguistics, archaeology or physical anthropology).

Honors

Majors whose achievements in anthropology courses have been of sufficiently high quality may choose to pursue an honors project, sponsored by an honors advisor in the department and approved by an honors committee. University guidelines specify that eligibility for honors requires a grade point average of 3.5 in all courses taken within the department. A student must declare the intention to pursue an honors project by the middle of the second semester in the junior year and agree to the departmental guidelines for honors projects. These are available from the department on request.

Students need not major in anthropology to qualify for membership in our Iota chapter of Lambda Alpha, the national collegiate honor society for anthropology. Any student who has completed a minimum of four courses in anthropology and has maintained a 3.0 GPA in those courses and a 2.5 cumulative GPA can apply. Additional details are available from the department.

Courses

101. Introduction to Human Origins.

This introductory course provides an overview of the fascinating and often controversial study of human origins. Emphasis is placed on the integration of prehistoric archaeology with human evolution. Topics to be examined include early human fossils and prehistoric sites in Africa, the emergence of Neanderthals and modern humans, the origins of language and art, the transition to food production and the emergence of civilization.

102. Cultural Anthropology.

This course offers a general exploration of cultural anthropology, a discipline that addresses the spectrum of human cultural diversity in the attempt to understand what people do and why they do it. We will read and talk about a wide variety of human communities from a number of topical viewpoints, ranging from the ways people construct relationships to the ways they perceive the world around them. We will discuss some of the ways anthropologists and others have attempted to account for human cultural phenomena and try to view these approaches with a critical eye. The object of the course is to develop a good acquaintance with aspects and examples of human cultural diversity and a grasp of some of the processes affecting human societies. Throughout the semester various issues will recur: What factors affect the relationships between female and male? Why do some groups fight a great deal, while others appear to be more peaceful? Why are some relatively egalitarian, while others emphasize differing ranks and statuses? We will read about and discuss six very different communities to shed light on these and other issues.

153. Introduction to African Studies: Environment and Culture.

This course looks at the distribution and use of water resources as a theme to lead to an appreciation of Africa today and in the past. Why are parts of Africa abundantly endowed with fresh water, while others suffer extreme aridity? How have the indigenous peoples of Africa coped with frequently variable and unreliable water supplies? What changes in water management occurred in the colonial era and since independence? How have Africa's water resources been misused and polluted; what impact does this have on people's lives? An attempt is made to gain awareness of the cultural element in resource use: how do people of different cultures conceptualize and value water resources? *Also offered as African Studies 102.*

205. Language and Human Experience.

This course introduces students to the study of language as a peculiarly human trait. Human vocal language will be compared and contrasted with non-human primate and other forms of communication with a view toward pursuing the following questions: What is language? What separates human language from other forms of communication? What is the range of human communicative skills (e.g., verbal sounds, non-verbal and verbal gestures, body language, the use of silence)? What is the relationship between language, society and culture? Between language and perception? How do the use, non-use and/or misuse of language communicate aspects of cultural and/or personal identity? How do anthropologists go about studying these things? In the process of pursuing these and other questions, the various methods and theories used in the anthropological study of language will be outlined.

210. Environmental Archaeology.

This course offers an analysis of the interaction between the biophysical environment and past human cultural systems. Students are introduced to a number of approaches that focus on the natural, geological and physical sciences, such as studies of case sediments and former beach terraces (geo-archaeology), pollen and plant fossils (paleobotany), and fossilized animal bones from archaeological sites (zoo-archaeology). Conceptual models are drawn from African, European and North American prehistory. *Also offered as Environmental Studies 210.*

220. The Neandertals.

Who were the Neandertals? Did they really live in caves, carry clubs, drag each other around by the hair and speak in grunts? What part did they play in the biological and cultural evolution of modern human beings? This course will investigate such questions and explore how the entertainment industry and popular culture have stereotyped the role of Neandertals in prehistory.

225. Peoples and Cultures of Africa.

The nature of culture will be explored through a survey of the peoples and cultures of Africa south of the Sahara. The adaptations of different cultures to different environments and subsistence economies are compared with resultant political systems, social organizations, religions, languages and worldviews. A primary focus is on traditional societies. Special attention is, however, paid to current issues of modernization and development in a world economic system. In addition, selected problems in cultural anthropological fieldwork, and the history and devel-

opment of methods and theory that have emerged from the anthropological study of African societies, are pursued. The course is recommended for students wishing further study in cultural anthropology, those with a particular interest in African ethnology and those planning to participate in the Kenya Semester Program. Prerequisite: Anthropology 102 or 153 or permission of the instructor.

229. Native American Cultures: North America.

We will explore aspects of Native North American societies and cultures from a variety of perspectives, including their prehistory, some of the historic changes they have undergone, systems of belief, patterns of social and political organization, strategies of adaptation and contemporary issues affecting them. A primary concern will be to comprehend Native American populations as peoples with rich and ancient heritages and to grasp their current situations as continuities from that complex past. We will also consider Native North America as an example of the general human experience and explore the broader cross-cultural implications of North American examples. *Also offered through Native American Studies.*

238. The Pacific Islands.

This course will survey the peoples and cultures of the Island Pacific, called Oceania. This area ranges from the lush semitropical islands of Hawaii through the mountains of New Guinea. The culture areas of Polynesia, Micronesia and Melanesia will be defined according to differences in geography, human physical features, languages and systems of religion, politics, economics and social organization. In addition, we will pursue selected problems in cultural anthropological fieldwork, modernization and development as these cultures struggle with worldwide political and economic processes.

240. Environment and Resource Use in Kenya.

The contrast in Kenya's physical and human environment is addressed, between highland and lowland, cropland and rangeland, domestic livestock and wildlife, modern and traditional ways of life and land-use systems. The impact of the colonial regime on land ownership and resource use is studied with reference to certain ethnic groups. Responses to changing economic and political conditions in the post-colonial era are also discussed. *Also offered as Environmental Studies 240 and through African Studies.*

245. Women and Land in Africa.

The position of women is analyzed with reference to ethnic groups from different parts of Africa. Their significant role in food production and fuel wood and water collection creates a heavy labor burden for women with few ownership rights to land or livestock. Trends in colonial and post-colonial Africa provided education to some women but decreased property rights and increased their responsibilities. Through films and biographies, African women speak in their own words about the realities of their lives. *Also offered through African Studies and Gender Studies.*

255. Environmental Perception and Indigenous Knowledge.

People in different cultures perceive their environments in different ways and have bodies of systematic knowledge relating to land, water, soil, plants and animals upon which they base their

use of these resources. This course attempts to show how indigenous people understand the interrelationship of the different elements of their environments and have used them for sustainable livelihood. The impact of Western knowledge systems and commercial interests on indigenous communities is discussed, with reference to African and American case studies. *Also offered as Environmental Studies 255 and through African Studies, Cultural Encounters and Native American Studies.*

275. Aboriginal Australia.

This course examines the richness and diversity of traditional Australian Aboriginal cultures viewed from a variety of perspectives, including archaeology, ecology, economics, social organization, politics, religion, gender relations and modern problems that come with urbanization, economic development and incorporation into an Anglo-European state system. The description and analysis of dominant Aboriginal themes are set within a broader framework of anthropological theory and inquiry through time. A central focus will be on the nature of social and cultural forms as they are thought to have been prior to the European invasion and during colonization and how these have been adapted (or resisted adaptation) to the contemporary Australian sociocultural system. Recommended for students applying for study in Australia. Prerequisite: Anthropology 102 or permission of the instructor.

304. Language, Culture and Society.

Ever notice that some people talk funny? Ever feel confused when someone else thinks *you* talk funny, whether it be your accent, turn of phrase or word use? Why does everyone but you have an accent? And what's really wrong, with, like, saying "like" like that? This course examines social and cultural aspects of language use, misuse and abuse. We will concentrate on issues such as ethnicity, social class, gender and power in language access and use patterns both *across* cultures and *within* the United States. In addition we will examine different genres of language performance (jokes, gossip, cursing behavior, proverbs, etc.) as linguistic vehicles of social control. Prerequisites: Anthropology 102 or 205 or permission of the instructor.

330. Native Cultures of Canada.

A seminar focusing on the historical background and contemporary circumstances of the native peoples of Canada. We will give particular attention to Athapaskan, Algonkian, Inuit, Iroquoian and Pacific Coast groups, although we will also consider Siouan and Metis peoples more briefly. The course will explore Canadian prehistory, historic cultures and their response to such developments as the fur trade, and such current political issues as land rights and legal status affecting their role within the Canadian state. *Also offered through Canadian Studies and Native American Studies.*

340. Development Issues in East Africa.

East Africa (Kenya, Uganda, Tanzania) has scattered natural resources, including fertile farmland, minerals, forests and wildlife. A major constraint to development in much of the region, however, is the inadequate and unreliable water supply. This course focuses on resource use and development strategies attempted in East Africa from the pre-colonial past through the colonial and post-colonial eras. Case studies from each of the three countries are presented to show different development policies and practices. *Also offered through African Studies.*

343. Famine.

Physical, economic and cultural factors give rise to famines. Cultural factors include the ways different societies respond to food shortage and the role of cultural conflicts and misunderstandings in contributing to famine or preventing adequate response to food shortage. These issues are discussed as they relate to famines in Europe, Asia and Africa during the 19th and 20th centuries. Films and print media sources are used to evaluate the cultural image of famine prevalent in this society. *Also offered through Cultural Encounters.*

350. The Anthropology of Sex and Gender.

Westerners tend to think of male and female as fixed and unambiguous biological categories determined by nature. But non-Western societies interpret sexual difference in myriad cultural ways. The aim of this course is to examine cross-cultural variations in the perception and elaboration of sexual difference. Special emphasis will be given to the study of non-Western hunting, gathering, pastoral and horticultural societies. This cultural diversity will serve as a backdrop for the interplay among ideology, childhood socialization and gender roles; differential status, power and prestige; symbolic connotations and reinforcement of gender imagery; and cross-cultural comparison of practices and attributes associated with sex and gender classification. Prerequisites: Anthropology 102, Gender Studies 103 or permission of the instructor. *Applies toward the Gender Studies minor.*

355. African Archaeology.

This seminar focuses on the origins and development of culture in Africa. Emphasis is placed on reconstructing paleoenvironments and cultural patterns from the earliest archaeological traces two and a half million years ago through the emergence of iron-using peoples. Students discuss selected site reports. Prerequisite: Anthropology 101 or permission of the instructor. *Also offered through African Studies.*

379. Body, Mind and "Personhood" in Anthropological Perspective.

What does it mean to be "human"? How do different cultures define human/non-human/other-than-human beings in the experiential world? This seminar will explore the role of culture in the symbolic and psychological shaping of individual human experience from birth through death, conceptions and comparative valuations of bodily features, ideal types, gender identity, individual goals for achievement and culturally accepted routes to achieving them. Emphasis will be on cases from Africa, Native America and the Pacific islands, but we will draw comparisons with "Western" ideas where appropriate. Some background in cultural anthropology or psychology is desirable. Not open to first-year students.

383. Indigenous Peoples in State Systems.

Over the past four centuries an accelerating barrage of forces has impinged on many peoples of the world who once were relatively autonomous populations in control of their own resources. The effects of Euro-American slavery, colonialism and incorporation into a global system have led to profound changes in indigenous social and cultural phenomena, ranging from adaptive responses and the assertion of ethnic identity to the destruction of entire societies. This course examines cases from a variety of perspectives, including concepts of modernization and dependency and world systems models.

420. Views of Human Nature.

An exploration of some of the important attempts to understand human social and cultural phenomena, ranging from early European efforts to account for human diversity to the spectrum of modern anthropological thought. Throughout the course we will be reading some of the arguments and analyses of people whose ideas have influenced views of why human beings act the way they do. We will also consider the nature of their disagreements and the issues that have persisted over the years in these debates, and we will argue these issues among ourselves. In the process of analyzing human behavior, the functioning of human societies, human trends and human differences, all of these writers have expressed their own concepts of what people are like. Each has a particular view of human nature, even if it amounts to the assertion that there is no such thing. We will explore the implications of these views, try to see them in the social and political contexts in which they arose and examine them with a critical eye. This course is designed as a senior capstone seminar for anthropology majors.

430. Human Evolution: The Fossil Evidence.

This seminar offers an overview of the empirical evidence and interpretive models of early human evolution. Emphasis is given to Plio-Pleistocene hominids from eastern and southern Africa. Specific topics for discussion include the divergence of apes and humans, origins of bipedality, the evolutionary relationships of early hominid species and the emergence of anatomically modern humans. Prerequisite: Anthropology 101 or permission of the instructor.

440. Pastoralist Peoples.

This is a seminar course in which individual participation, both in speech and in writing, is extremely important. We look at the past, present and future of pastoral nomads, with special reference to East Africa. Readings focus on how the women and men of these communities have defined themselves and how they have been perceived and defined by others. Evaluation of the ways pastoral communities are adapting to changing political, economic and social situations in East Africa allows us to consider the appropriateness of national policies of rangeland development and to recognize possible future trends in these areas. *Also offered through African Studies.*

445. Magic, Religion and Myth.

We are born, we live and we die. Although this is also true of other animals, only humans are aware of the precariousness of life and the inevitability of death. Only the human animal sees a pattern behind the facts of existence and worries about life here and in the hereafter. Only humans create elaborate symbolic mechanisms to cope with these universal unknowns. This course examines how people cope with the trials and tribulations caused by the uncertainties of life through symbolic systems such as magic, sorcery, religion, myth and ritual. Ethnographic examples are drawn predominantly from non-Western cultures in Africa, the Island Pacific, India and Southeast Asia, but there will be some comparative discussion of contemporary Western cultural traditions as well. Recommended background: Anthropology 102 or 205 or permission of the instructor.

447,448. Anthropology Topical Seminars.

Offered occasionally. These seminars deal with significant topics in anthropology on an advanced level. Recent offerings have been

Faunal Analysis, Nationalism and the Post-Colonial Experience in South Asia, The Anthropology of War and Raiding, Apache Studies and the Beginning of Food Production. Prerequisites: previous relevant course work to be specified in the *Class Schedule* or permission of the instructor. *Also offered through Native American Studies.*

489,490. Projects for Juniors and Seniors

Open to qualified students who wish to pursue more specialized or advanced anthropological study and research on a specific topic under the direction of a faculty sponsor. Prerequisite: at least two anthropology courses and permission of the instructor.

498,499. Honors in Anthropology.

Open to anthropology majors with a grade point average of at least 3.5 in all courses taken within the department. Requires completion of a long-term project beginning late in the junior year under the guidance of a faculty advisor. Details are available from the department. Prerequisite: permission of the instructor.

Applied Statistics

Minor offered

An interdisciplinary minor in applied statistics is available to students wishing to develop a solid understanding of methods for analyzing and interpreting data. Course work can be selected from the general statistics courses offered by the mathematics department and various disciplinary methods courses offered by the departments of biology, economics, psychology and sociology. Students are encouraged to obtain a broad understanding of the fundamental principles of statistics while emphasizing the important applications of those principles to real-world situations.

Minor Requirements

Five courses are required for this minor. These courses must be chosen from among the options listed below; at least one and not more than two of the five courses must be disciplinary methods courses from outside the mathematics department. Math 113 and Economics 200 may not both be counted toward the statistics minor.

Mathematics

- 113. Applied Statistics I.
- 213. Applied Statistics II.
- 325, 326. Probability and Mathematical Statistics.
- 343. Time Series Analysis.

Disciplinary Methods Courses

Biology

- 303. Biometrics.

Economics

- 200. Quantitative Methods in Economics.
- 342. Econometrics.

Psychology

- 205. Research Methods in Psychology.

Sociology

- 301. Quantitative Research Methods.

An independent study/honors project that involves substantial statistical analysis may also be used as one of the five courses toward an applied statistics minor.

Asian Studies

Combined major and minor offered

Professors Coburn (religious studies), Ramsay (government); **Associate Professors** Chiba (modern languages and literatures), Csete (coordinator; history), MacWilliams (religious studies); **Assistant Professors** Basu (fine arts), Church (history), Henderson (visiting; music), McCarthy (visiting; philosophy), Poethig (global studies), Renold (visiting; religious studies); **Instructor** Hiramatsu (visiting; modern languages and literatures).

Requirements

The combined major in Asian studies makes it possible to earn a major in history, government or religious studies that incorporates courses in several departments to ensure an integrative approach to the study of Asia. The combined major appears on transcripts as history/Asian studies, government/Asian studies or religious studies/Asian studies. For the combined major, students must take a minimum of three core courses and four electives from the list below, including one course with a research component. They must also fulfill requirements for the disciplinary major. The history, government and religious studies departments have agreed that their courses listed for Asian studies credit may also count for the departmental major.

For the minor in Asian studies students must take History 105 or 106 and four electives from the list below, including one course with a research component.

Core Courses

History

105. Early East Asian Civilization. *or*
106. Modern East Asia.

Religious Studies

222. Buddhist Religious Tradition. *or*
223. Religious Life of China.

Elective Courses

No more than two electives from a single discipline or focusing upon the same country can count as part of the minimum of four. Electives may be taken either at St. Lawrence University or, for students who participate in the Japan Program, at Nanzan University in Nagoya or International Christian University (ICU) in Tokyo, or in India as part of the New York State Independent College Consortium for Study in India.

Departmental Offerings

Government

273. The Politics for Human Rights in Asia.
290. Research Seminar: East Asia.
322. Government and Politics in the People's Republic of China.

History

105. Early East Asian Civilization.
106. Modern East Asia.
282. History of Modern Japan.
292. Revolutionary China.
377. Colloquium in Asian History (topic varies).

Japanese

- 101, 102. Elementary Japanese.
103, 104. Intermediate Japanese.
490. Independent Study.

Modern Languages and Literatures

224. Modern Japanese Literature and Film.*
226. Japanese Drama.*

Religious Studies

221. Religious Life of India.
222. Buddhist Religious Tradition.
223. Religious Life of China.
226. Religious Life of Japan.

*Literature in Translation courses

370. Asian Religions in the Modern World.
380. Mythology and Popular Religious Thought in India.
450, 451. Directed Studies in Religion.

Elective Courses in Japan

Normally, courses taken in Japan are accepted as equivalent to courses at St. Lawrence for fulfillment of the requirements for the combined major in Asian studies. Each student must register for a normal full load at Japanese universities: 14 or more hours per semester at Nanzan University; 12 or more units per term or a total of 36 units for the academic year at ICU. Selected courses other than Japanese language instruction are listed below.

Nanzan University, Nagoya, Japan

Economics

- Japanese Business
Japanese Economy

Sociology

- Japanese Society

Government

- Japanese Politics

History

- Japanese History

Literature

- Japanese Literature

Non-departmental

- Japanese Linguistics
Elementary Translation
Japanese/English Interactional
Language Acquisition
Japanese Thought
Japan and Christianity

International Christian University, Tokyo, Japan

All courses described by ICU as three-credit courses that focus on Japan or Asia are accepted as equivalent to a course at St. Lawrence for the interdisciplinary major in Asian studies. They will not, however, be counted as a full unit of credit toward graduation. The following is a sample of courses that are normally available; for a complete list, see the Japan Program coordinator.

Anthropology

Japanese Archaeology

Fine Arts

Japanese Art

History of Eastern Art

Economics

Economic Development of Modern Japan

Business and Society in Japan

Government

Politics in Japan

Modern Japanese International Relations

History

Introductions to Japanese History I and II

Literature

Modern Japanese Literature in English Translation

Philosophy/Religious Studies

Religion and Philosophy in Japan

Values and Ethics in Japan

Sociology

Introduction to Japanese Society

Industrial Sociology

Social Structure in Japan

Non-departmental

Ethnomusicology: Japanese Music

Elective Courses in India

Courses taken in India are designed by Indian and consortium faculty to be equivalent to courses at St. Lawrence. Each student is enrolled in the following four subject areas: Hindi language, historic India, contemporary issues and independent project.

Combined Major Requirements**History/Asian Studies**

History majors who wish to do a combined major with Asian studies must fulfill the regular history major requirements, though they must take a minimum of eight history courses rather than the standard nine. The eight required history courses must include a research seminar and at least one course each in European history, North American history and Asian history.

History/Asian Studies combined majors must also take History 105 or 106 and Religious Studies 222 or 223. Two of the four required elec-

tives must be outside the History Department. One of the electives must include a research component.

Government/Asian Studies

Government majors pursuing a combined major in Asian studies must fulfill the regular government major requirements, though they must take a minimum of eight government courses rather than the standard nine. Courses must include Government 103, 105, 290, one international course and one theory course. Students must also take three electives, including Government 322 or Special Topics courses on Asia.

Government/Asian Studies combined majors must also take History 105 or 106, and Religious Studies 222 or 223. Three of the four required electives must be outside the Government Department. One of the electives must include a research component.

Religious Studies/Asian Studies

Religious studies majors who wish to do a combined major with Asian studies must fulfill the regular religious studies major requirements, though they must take a minimum of eight courses rather than the standard nine.

Religious Studies/Asian Studies combined majors must also take History 105 or 106 and Religious Studies 222 or 223. Two of the four required electives must be outside the Religious Studies Department. One of the electives must include a research component.

Minor Requirements

Students can minor in Asian studies by taking History 105 or 106 and four electives, including one course with a research component. Courses should be selected in consultation with the minor advisor. The electives must be from the courses at St. Lawrence University and/or full credit courses offered in Japan or India. Electives should be selected to give students a coherent focus within the field of Asian studies. Students must maintain a minimum GPA of 2.0 in courses submitted for the minor.

Biochemistry

Major offered

Visit <http://it.stlawu.edu/~biochem> or link via the department Web pages – <http://it.stlawu.edu/~biology> or <http://it.stlawu.edu/~chem> – on the academics page at www.stlawu.edu for information on this interdisciplinary major.

The interface between chemistry and biology offers numerous exciting opportunities for study and research in an interdisciplinary arena. It is one of the most active areas of current scientific progress and the main driving force behind the biotechnology revolution. The biology and chemistry departments collaborate in the teaching and administration of the biochemistry major. Students will see how the tools and concepts of these two disciplines are used to ask and answer fundamental questions related to the molecular basis of life processes. Students interested in such diverse topics as cloning, the mechanism of drug action, DNA fingerprinting, structure/function relationships of biological macromolecules, hormonal regulation of physiological processes, metabolic pathways, mechanisms of enzyme catalysis and similar topics will find much of interest.

Specific goals for students in this major include: (1) Development of a knowledge of the function of living organisms at the molecular level and the relevance of chemical and biological principles, and their interplay, in reaching this understanding; (2) Development of laboratory skills that allow research questions in biochemistry to be pursued; (3) Participation in faculty-mentored research projects at various stages of the student's education, culminating in the senior project; (4) Preparation for careers in biotechnology and health and graduate work in biochemistry or molecular biology.

Students will make extensive use of an impressive array of laboratory equipment, instrumentation and computer-based technologies housed in both departments. A dramatically enhanced microscopy/imaging facility houses transmission and scanning electron microscopes in addition to fluorescence and differential interfer-

ence microscopes. A confocal microscope and an energy dispersive X-ray analysis system for the SEM will be new additions in 2002. The chemistry department is home to a modern, high-field multinuclear NMR spectrometer and will soon house workstations that enable student and faculty access to supercomputing capabilities. For more thorough and detailed descriptions of facilities and equipment please refer to the biology and chemistry sections of this *Catalog*.

Note that students majoring in biochemistry may not also receive minors in either biology or chemistry.

Planning for the Major

To productively address interdisciplinary topics one must first become well grounded in the interacting disciplines. This requires a fast start in which key prerequisite courses are completed, beginning in the very first semester of study. A student interested in majoring in biochemistry will be best served by selecting a second advisor from either the biology or chemistry faculty during the first-year orientation period. Contact either of the department chairs for information regarding how to establish a formal or informal secondary advisor relationship. Developing a strong advising relationship will be essential in shaping your curriculum in a way that provides a background commensurate with your needs. Your program of study should be tailored to fit your future plans.

Advanced Standing

Students scoring a 4 or 5 on the AP biology test must enroll in the first semester of general biology (101) for which they will receive the normal 1.5 units of credit toward the biochemistry major. Students who do well in this course will be permitted to bypass the spring biology course (102) and they will be given course credit toward the major. This requires approval of the general biology course instructors, who will use multiple criteria to determine whether or not the AP student should take the spring course. The AP score of 4 or 5 will automatically nominate the student for this option, but the student may also choose to forgo it.

Students who have taken AP chemistry and received a grade of 4 or 5 are eligible to receive 1 unit of credit for Chemistry 103. They may enroll in Chemistry 104 in the spring but are encouraged to consider taking the accelerated general chemistry course (105) in the fall.

Major Requirements

Biochemistry majors must complete the following courses.

In biology: General Biology (101-102); two upper level biology courses from among Genetics (245 or 246), Microbiology (331), Introduction to Cell Biology (250), Developmental Biology (312); and Molecular Methods (395).

In chemistry: General Chemistry (103-104 or 105), Organic Chemistry (221-222), Biochemistry (309), Biophysical Chemistry (342), and Advanced Biochemistry (415). In addition, students must take Research Methods in Biochemistry (Biochemistry 394) and complete a senior project following either chemistry or biology department guidelines.

Prerequisite courses from other departments are Physics 103-104 or 151-152 and Math 135 (Calculus). (Two semesters of calculus and a statistics course are strongly recommended.) The introductory biology and chemistry courses should be completed during the first year of study. Additional math and chemistry may be important for fulfilling admissions requirements to certain graduate programs in biochemistry. Planning forms are available on the biochemistry Web page.

Course

394. Research Methods in Biochemistry

This course will introduce basic laboratory techniques and skills that are common in fields related to biochemistry. The first half of the semester will be devoted to learning basic techniques. During the second half of the semester, students will apply those techniques to complete a guided research project. Attention will be paid to both theory and application. Students will develop a methodology notebook and will prepare lab reports for each exercise. The project will be written up in the style of a journal article. There will not be separate lecture and lab periods; all learning will be done in the laboratories, which will meet two afternoons per week plus a half-hour recitation section by arrangement. Prerequisites: Chemistry 222 *and* any one of Biology 245, 246, 250, 312, 331, 391 or Chemistry 309 (which can be taken as co-requisite). *Also offered as Biology 394.*

Biology

Major and minor offered (also see Biochemistry and Neuroscience)

Professors T. Budd (chair), Hornung, Rogerson; **Associate Professor** McKnight; **Assistant Professors** Baldwin, Barthelmess, Bodensteiner, Erlichman, Mayer, McGee (visiting), Ramirez-Sosa, Temkin; **General Biology Specialists** C. Budd, Casey.

Visit the biology department Web page at <http://it.stlawu.edu/~biology> or link directly from the academics page at www.stlawu.edu.

The nature of the biology department reflects both the diversity of modern approaches to dealing with living organisms and the commitment of the University to a liberal education. The course offerings are, for a small department, unusually rich and heterogeneous and offer great opportunity for the construction of unique yet broad-based programs. The basic objectives of the department are to provide insight into the rules and relationships governing living systems and to encourage students' individual interests by allowing them to tailor their programs to their own interests and needs.

The biology academic program has the following objectives:

1. To instill in students an understanding of the process of biological research and a life-long appetite for learning. This would encompass learning technical (experimental) skills, analytical reasoning, experiential learning, interdisciplinary learning and critical thinking.
2. To provide students with a broad yet thorough understanding of the beauty and complexity of current biological knowledge.
3. To develop students' written and oral communication skills in the context of scientific conventions of format, succinctness, objectivity and accuracy.
4. To familiarize students with the history of biology.
5. To instill in students a sense of obligation to consider the ethical and social implications of scientific discovery and its application.

The department is interested in offering biology both to the major and the non-major, and in preparing students who will conclude their formal education with the baccalaureate degree as well as those who will continue in graduate or professional study. An interdisciplinary biology-physics major and a combined major with environmental studies are available. For more information on these, see the appropriate *Catalog* sections.

Graduate work is necessary for those wishing to pursue many careers in the biological sciences, although some majors do obtain positions without further formal training. Biology majors continue studies in graduate school in such diverse areas as ecology, evolution, molecular biology, entomology, marine biology, physiology, microbiology and genetics. Other majors use their biological training in industry, environmental science, academia and health care professions.

Many biology majors go on to health professional schools in veterinary medicine, medicine, dentistry or physical therapy. Students interested in a health career should consult a member of the Health Careers Committee early in their college career.

The department's facilities, located primarily on the first floor of Bewkes and Valentine Halls, comprise eight teaching laboratories with appropriate preparation rooms and equipment, several research laboratories, a greenhouse and collections of invertebrates, vertebrates and plants. Many courses focus on fieldwork in the varied habitats near the University, both on campus and off. Equipment available to the student ranges from insect nets to an ultracentrifuge, from binoculars to electron microscopes, from live-traps to physiographs, from plant presses to a liquid scintillation spectrophotometer. All laboratories are equipped with computers for data analysis and information retrieval from the Internet and the science library on-line database services.

Opportunities exist for student employment in the department as laboratory assistants, teaching assistants or field assistants, or in some combination of these roles. Completion of particular courses is often a prerequisite to specific employment.

Courses for the Non-major

Biology 101,102 (General Biology), the entrance sequence to the biology major, is open to all students and serves as the year of general biology required by many professional schools. Biology 121 (The Natural World) is for non-majors interested in the natural world in which they live. Biology 104 (Introduction to Plant and Animal Biology) is for students with some college-level background who need parts of the 101,102 sequence to accomplish the year-long sequence. Not normally open to first-year students, it can be taken only by special arrangement with the instructor. A course in bioethics (Biology 261) is occasionally offered without prerequisites or major credit for any student interested in studying the ethical obligations of science. All other courses may be selected by any student who has the prerequisites or permission of the instructor. All of these courses except bioethics satisfy the natural science distribution requirement.

Advanced Standing

Students scoring a 4 or 5 on the AP biology test must enroll in the first semester of Biology 101 (General Biology) for which they will receive the normal 1.5 units of credit toward the major. Students who do well in this course will be permitted to bypass the spring general biology course (Biology 102) and they will be given advanced standing as well as the Biology 102 1.5 units of credit toward the major. The approval of this option will be determined by the general biology course instructors, who will use multiple criteria to determine whether or not the AP student should take the spring course. The AP score of 4 or 5 will automatically nominate the student for this option but the student may also voluntarily choose to for-go it. The department does not grant advanced standing for Advanced Placement scores of 3.

Major Requirements

Students entering St. Lawrence with an interest in biology should enroll in Biology 101 and 102 during their first year. They should also seek early advisement by a biology faculty member. The current minimum requirements for the biology major are two semesters of Biology 101-102 (1.5 units each as of Fall 2001) plus an additional six units of biology courses. At least two units of these courses must be at the 300 or 400 level. Half-unit biology offerings may also be used to fulfill this requirement. Students are encouraged to take units of independent research, seminars or tutorials, especially during their senior year. However, to insure breadth in course work, only one such course, with the exception of the first unit of research, can be counted in the minimum required for the major. Such courses are marked "major credit restricted," and include Biology 260, 333, 380 and many 400-level courses. In addition to the biology course units mentioned above, and beginning with the class of 2004, the major also requires Chemistry 103, 104 and Math 113.

Biology comprises many subdisciplines directed toward the study of particular groups of organisms or processes. In addition, the biological sciences interface with many other fields to yield interdisciplinary areas such as biochemistry, environmental sciences, ethnobiology or paleontology. Because of this diversity, the department does not insist on a set pattern of courses that must be taken for the major, but it does expect students to select courses that provide both breadth and depth. Just as students obtain a liberal education, biology majors are also advised to obtain a broad preparation in biology.

Below are courses grouped according to their primary level of organization. Although majors may wish to concentrate within one area, students are expected to take courses from each of the following areas and from as many departmental faculty members as possible.

Cell/Molecular Biology

- 245, 246. Genetics.
- 250. Introduction to Cell Biology.
- 260. AIDS Seminar.*
- 312. Developmental Biology.
- 326. Animal Physiology.

- 331. Microbiology.
- 333. Immunobiology.*
- 386. Advanced Animal Physiology.
- 390. Research Methods in Transmission Electron Microscopy.
- 391. Research Methods in Scanning Electron Microscopy.
- 392. Microscopy Project.
- 394. Research Methods in Biochemistry.
- 395. Research Methods in Molecular Biology.

Ecology and Evolutionary Biology

- 207. Freshwater Biology.
- 211. Comparative Vertebrate Morphology.
- 215. Invertebrate Biology.
- 221. General Ecology.
- 258. Ethnobotany.
- 319. Plant Systematics.
- 330. Limnology.
- 340. Conservation Biology.
- 343. Evolution.
- 360. Marine Ecology.
- 380. Tropical Ecology.*

Organismal Biology

- 207. Freshwater Biology.
- 209. Vertebrate Natural History.
- 211. Comparative Vertebrate Morphology.
- 215. Invertebrate Biology.
- 224. Biology of Vascular Plants.
- 225. Mycology.
- 227. Mammalogy.
- 312. Developmental Biology.
- 331. Microbiology.
- 360. Marine Ecology.

*Major credit restricted.

Research Projects

Biology 482 and 483 (Research Projects) are open to any advanced student who majors or minors in biology. Before deciding on a particular topic, students are encouraged to discuss possible projects with as many members of the biology faculty as possible. The faculty member who agrees to sponsor the research will become the project advisor and will direct all aspects of the independent research and will also be responsible for evaluating student performance. Students are encouraged to seek input from other departmental faculty as appropriate to the research topic. Projects usually carry one unit of credit but may span the entire year. Depending on the project's scope, an additional unit of credit may be earned, but only one such unit

may count toward the major requirement of two units at the 300/400 level. The first unit of research is not major credit restricted.

Honors

To graduate with honors in biology, a student must have a minimum 3.50 GPA in all biology courses at the time of graduation and must satisfactorily complete a year-long honors research project. A student wishing to be considered for honors in biology should enroll in Biology 482 during the first semester of research (usually, but not limited to, the fall semester of the senior year) for one-half or one unit of credit. The student, in consultation with the project advisor, should choose a project committee composed of the project advisor and two other faculty members appropriate to the topic (one of these two may be from another department). This committee should be formed as soon as possible in the first semester of research. At the end of the first semester, the honors project advisor, in consultation with the other members of the advisory committee, evaluates the progress of the project as well as a detailed proposal for its completion. If the project is deemed worthy of honors in biology, the student is then nominated as a candidate for honors by the committee to the biology department faculty. The student can then enroll in Biology 499 (Honors). This course may carry either one-half or one unit of credit.

Although most decisions about the requirements for the honors research are determined by the project advisor, all honors students must meet certain minimum project standards:

1. The project must be original work.
2. The student must submit three copies of the final written report of the project to the biology department by 5 p.m. on the last day of classes of the second semester. The report will be bound and will become a part of the archives of the department.
3. The student must present a seminar on his or her project. This requirement must be met no later than seven days before the last day of classes of the second semester and is to be a public event that is open to all members of the University community.

If the research is judged by the committee as worthy of honors and the guidelines have been met, the student will receive a grade of 3.5 or 4.0 in Biology 499 and will have the honors designation noted on his or her transcript and on the graduation program. If the project advisor or both of the other committee members judge the project as not worthy of honors or if the guidelines have not been met, the student will receive a grade lower than 3.5, will not be designated as graduating with honors (this decision must be made by Wednesday of senior week), and the course will then count as Independent Research unless the grade assigned is a "0."

Honors in the Environmental Studies/ Biology Combined Major

To graduate with honors in the environmental studies/biology combined major, students must maintain a GPA of 3.5 or higher in all biology and environmental studies courses and complete an honors research project having an environmental component or emphasis. The timetable and guidelines are the same as for honors in biology, except that the project will be guided by a project committee composed of at least one faculty member from both environmental studies and biology. Also, the student will be nominated for honors to both environmental studies and biology faculty.

Research Support

The University offers several options for providing resources for student research.

1. The dean of academic affairs often provides modest funds for student research. All students conducting research should submit a proposal, with endorsement by the faculty sponsor, to the dean. The proposal should be in the form of a brief description of the project, a statement of other support being used or considered and a budget. This should be relatively easy once the student has done an appropriate literature review of the topic being researched.

2. Modest funds are allocated in the departmental operating budget and may be drawn upon by the faculty sponsor.
3. The New York Science Education Program is designed to support summer research opportunities for students and faculty. A modest stipend is provided and funds are available for direct support of the research. Those research projects are posted during the spring semester and students may apply to do research at St. Lawrence, at Cornell University or at one of five other cluster universities.
4. The Phelps Fund was established by a generous donation to enhance student research opportunities. These significant funds may be applied for with a proposal similar to the one specified above for seeking financial support from the dean.
5. The University Fellowship program provides support for summer research of eight to ten weeks duration. Guidelines for application are available in the office of the dean of academic affairs in Vilas Hall.

Minor Requirements

The minimum course requirements for a minor in biology are the two semesters of Biology 101-102 plus three additional units of biology courses. At least one of these courses must be at the 300 or 400 level. The minor cannot include courses that do not fulfill the basic major requirements (such as bioethics) or that are otherwise major credit restricted. Thus, seminars, tutorials and research projects cannot be used to fulfill the minimum minor requirements. The department does not require specific courses, but does strongly recommend that minors select courses that provide breadth. Advanced Placement for the minor will be the same as for the major.

Suggested Courses Outside the Department

Because biology is interdisciplinary in nature, selected support courses outside the department should include a year of organic chemistry in addition to the required year of general chemistry, introductory physics and mathematics (in addition to the required statistics), and may include

other courses chosen to strengthen individual objectives. To gain a greater appreciation of material in advanced biology courses, to meet requirements of graduate and professional schools and to use the junior and senior years most effectively, students should take electives outside the department as early as possible.

The biology department encourages off-campus study, especially in St. Lawrence's Kenya, Costa Rica, Australia and Denmark programs (see the International and Intercultural Studies chapter of this *Catalog*).

Certification to Teach Biology

Students seeking initial certification as a 7-12 biology teacher in New York must major in biology and also complete the certification minor in education. Biology majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the biology major and the pre-certification minor in education (or its equivalent) as undergraduates. Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Awards

The biology department annually makes the following awards:

The *Beta Beta Beta Outstanding Senior Award* is given to a graduating biology major who has shown outstanding achievement in academics, research and departmental service. Along with the recognition, the award provides a one-year membership in the American Association for the Advancement of Science.

The *Edward N. Warner Award* is given to a junior major to help defray the cost of applying to health professional schools during his or her senior year. This award is based on superior academic achievement and all recipients must show some financial need.

The *Crowell Summer Award in Field Biology* is given for summer study at a biological field station. The award is normally given to the junior major who shows the most promise in natural history.

Courses

The introductory biology courses have been significantly modified in terms of their pedagogical approach to how one learns biology. We stress investigative learning and focus on developing lab skills and science academic skills. Most learning takes place in the laboratory. Each lab section is staffed with a faculty member and two well-trained upperclass student teaching assistants. Lecture serves to enhance the lab-based learning and students participate in a weekly recitation where they are called upon to teach their classmates about the concepts and skills learned.

101. General Biology. (1.5 units)

An introductory exploration of biological principles at the ecosystem, population, organism and organ system level using an investigative and problem-based approach. Structured, skill-based lab exercises allow students to develop, perform and present a semester-long independent project. There is one three-hour lab, a recitation and three lectures each week. Offered in the fall semester.

102. General Biology. (1.5 units)

An introductory exploration of cellular processes (including metabolism and inheritance) from an evolutionary perspective in an investigative, problem-based format. Structured, skill-based lab exercises allow students to develop, perform and present a semester-long independent project. There is one three-hour lab, a recitation and three lectures each week. Offered in the spring semester.

104. Introduction to Plant and Animal Biology.

An independent study course designed for students who have completed one or more college-level biology courses but require additional topics to represent a background equivalent to Biology 101,102. Satisfies introductory biology requirements for the biology major and/or election of advanced courses for which Biology 101,102 are prerequisites. Available for one half or one unit of credit. Prerequisite: permission of instructor.

121. The Natural World.

A field biology-ecology course for non-majors emphasizing the plants and animals of the Northeast. The course focuses on ecological factors and processes affecting individual organisms, communities and ecosystems. Students visit a variety of aquatic and terrestrial habitats to study local ecosystems and to learn the natural history of local plants and animals and how to identify them. Students also learn how to conduct a scientific study and record observational data. May not be included in the basic eight-

unit major requirement. *Also offered as Environmental Studies 121 and through Outdoor Studies.*

207. Freshwater Biology.

The study of freshwater animals (fishes, insects, clams, etc.) and plants collected in the rivers and lakes of northern New York. Emphasis is placed on the adaptations, life histories, ecology and identification of biota. A mixture of field and laboratory work will train students in collection, observation and experimental techniques. Lectures and one laboratory per week. Prerequisites: Biology 101, 102 or equivalent. *Also offered through Outdoor Studies.*

209. Vertebrate Natural History.

A study of the systematics, distribution and life history of the vertebrate groups. Field labs involve methods to capture, identify and study the local species of fish, amphibians, reptiles, birds and mammals. Other labs use preserved material to teach morphology and systematics. Prerequisite: Biology 101,102. *Also offered as Environmental Studies 209 and Outdoor Studies.*

211. Comparative Vertebrate Morphology.

A study of the morphology and evolutionary history of living and extinct vertebrates. Concepts such as homology, phylogeny, ontogeny and the relationship between form and function are stressed. Lab involves dissection of major organ systems of vertebrate classes. Prerequisite: Biology 101,102.

215. Invertebrate Biology.

This course covers the life histories, ecology, behavior, physiology, structure, evolution and taxonomy of non-vertebrate animals such as clams, starfish, insects, etc. Emphasis is on aquatic invertebrates from freshwater, estuarine and marine habitats. A mixture of field and laboratory work will train students in collection, observation and experimental techniques. Lectures and one laboratory per week. Prerequisites: Biology 101, 102 or equivalent. *Also offered through Outdoor Studies.*

221. General Ecology.

A study of the factors influencing the abundance and distribution of species, including interactions between individuals and their physical/chemical environment, population dynamics and the structure/function of communities and ecosystems and their responses to disturbance. Labs are field-oriented and emphasize characteristics of local communities or specific techniques such as estimation of population density. Lectures and one lab per week. Prerequisites: Biology 101,102 or equivalent or permission of instructor. *Also offered as Environmental Studies 221 and through Outdoor Studies.*

224. Biology of Vascular Plants.

A study of the evolution, morphology, physiology and life histories of mosses, ferns, conifers, flowering plants and their relatives, in an ecological context. Indoor labs survey the morphology and reproductive characters of the major groups of plants as well as the structure and function of plant organs and tissues. Outdoor labs emphasize ecology, identification and economic uses of local plants. Lectures and one laboratory per week. Prerequisites: Biology 101,102 or equivalent or permission of instructor.

225. Mycology.

A survey of the kingdom fungi. An examination of the morphology, ecology, life histories and systematics of the fungi of the North Country. Groups to be emphasized are mushrooms, rusts, smuts, mildews, cup fungi, bread molds, water molds and slime molds.

The importance of fungi in human affairs is also examined. Lectures and laboratory. Frequent field trips. Prerequisites: Biology 102 or equivalent. *Also offered through Outdoor Studies.*

227. Mammalogy.

The objectives of the course are to become familiar with the diversity of mammalian species as well as their distribution, morphology, taxonomy and ecology. Students will relate this diversity and specific aspects of their ecology to evolutionary history and will learn to identify mammals to the family level. Lectures and laboratory (including fieldwork). Prerequisites: Biology 101, 102 or equivalent. *Also offered through Outdoor Studies.*

245, 246. Genetics.

An introduction to the principles of the transmission of inherited characteristics and the underlying molecular mechanisms of the regulation of expression of genetic information. Genetic engineering and an introduction to population genetics are included. Three lectures and one laboratory per week. Prerequisite: Biology 101 or equivalent; pre- or co-requisite: Chemistry 101 or 103 or permission of instructor.

250. Introduction to Cell Biology.

An understanding of the concepts and processes of cell biology is fundamental to all other disciplines in biological sciences. This course introduces cellular structure and the function of these structures in relation to the physiology of the organism. The lecture portion introduces cell ultrastructure and the methods of studying it, membrane structure and function, protein structure and function, and the fundamentals of primary metabolism and information storage/transfer (i.e., replication, transcription and translation of genetic material). The material is relevant to animal, plant and microbial organisms. The lab consists of a series of protocols to demonstrate some fundamental methodologies in cell biology and introduces the process of scientific research. Lectures and one laboratory per week. Prerequisites: Biology 101,102. Recommended: Chemistry 103,104.

258. Ethnobotany.

Ethnobotany is an interdisciplinary field that draws concepts and methods from both natural and social sciences to investigate human-plant interactions. Among topics to be covered in this course are: the history of ethnobotany; plant uses by native people for medicinal, ritual, dietary and many other purposes; the direct effect of plants on the development of past and present civilizations both in the New and the Old World; archaeological studies that demonstrate the use of plants by people in antiquity; and the current state of ethnobotanical research. Projects will be conducted in the laboratory to learn basic plant analysis techniques. The field component will include visits to local Native American reservations and nature reserves. This course will illustrate the importance of plants in our everyday life. *Also offered through Native American Studies.*

260. AIDS Seminar.

This seminar examines the historical and current epidemiology of AIDS, the biology and evolution of the viruses that cause AIDS, current areas of biomedical and behavioral research and the overall impact of the AIDS pandemic on local and global societies. Major credit restricted.

261. Bioethics.

This course explores such topics as patients' rights, professional confidentiality, abortion, death and care of the dying, allocation of medical resources, experimentation, behavior control and genetic intervention. The course includes both lectures and discussions, and student projects are emphasized. The course is often team-taught with a member of the religious studies department and is *also offered as Religious Studies 261*. May not be included in the basic eight-unit major requirement.

303. Biometrics.

A study of the techniques and theory used in numerical analyses of biological data. Statistical considerations of biological sampling designs, sample descriptions and hypothesis testing are covered by extensive student use of the Schultz Population Sampler. Phenetic and cladistic methods of grouping individuals and species are compared by computer analysis of student-collected data. Readings from current biological literature supplement text and laboratory work. Lectures and one laboratory per week.

312. Developmental Biology.

In this course we examine the fundamental processes and principles that govern the development of eukaryotic organisms from fertilization to senescence. Developmental processes are considered at the molecular, cellular and organismic levels of organization. An emphasis is placed on understanding early development events in invertebrates (sea urchins, snails and fruit flies) and vertebrates (frogs, chickens and humans). Laboratory projects involve the observation of living embryos and research on the differential expression of genes during development. Three hours of lectures and three hours of laboratory per week. Prerequisites: Biology 101,102. Recommended: Biology 245, 246 or 250.

319. Plant Systematics.

Classical and modern approaches to the taxonomy of higher plants with emphasis on evolutionary trends, principles of classification and geographic distribution. The distinguishing field characteristics of the principle families of ferns, conifers and flowering plants are studied. Also included is an identification of local flora. Prerequisites: Biology 101,102. Offered in alternate years.

326. Animal Physiology.

This course is devoted to the general principles and concepts of animal physiology. Lecture topics include functioning of the neuro-skeletal, muscular, respiratory, circulatory, excretory and endocrine systems. Six hours of lecture and one three-hour laboratory every two weeks. Prerequisites: Biology 101,102 or equivalent.

330. Limnology.

Limnology is the study of inland bodies of water. The course will focus primarily on lakes and streams, and how the biology, geology, physics and chemistry of these aquatic systems are inter-related. We will examine a number of key processes and interactions from community and ecosystem perspectives. Topics covered include primary production, seasonal succession, food web dynamics and nutrient cycling. The laboratory covers quantitative techniques in aquatic science and emphasizes experimental investigations of the interactions and processes discussed in lecture. Prerequisites: Biology 101, 102 or equivalent. Recommended: any of Biology 215, 221, 360, 380 and Chemistry 103, 104.

331. Microbiology.

An introduction to the structure, physiology, ecology, genetics and evolution of organisms whose life cycles are primarily microscopic. Lectures examine the metabolic activities and adaptations of these organisms as they interact with humans and the environment. Laboratory involves microbial cultivation and identification and analysis of microbial presence and activity. Lectures and one laboratory per week. Prerequisites: Biology 101,102; pre- or co-requisite: Chemistry 101 or 103 or permission of instructor.

333. Immunobiology.

Immunobiology is one of the most rapidly advancing areas in science. The study of immunobiology has been responsible for monumental advances in knowledge in such areas as genetics, evolution, biochemistry, cytology, molecular-cell biology, physiology, microbiology, medicine and science ethics. This course is designed to present the knowledge gained in these areas to demonstrate the relatedness of these subdisciplines. The future expectations and directions of current research are discussed and the topics are presented in a way that exposes the student to the inductive and deductive processes of research. Prerequisites: Biology 101,102, Chemistry 103, 104. Major credit restricted.

340. Conservation Biology.

This course examines the problem of maintaining biological diversity in a changing world. Emphasis is on the biological concepts involved in population biology, genetics and community ecology, and their use in conservation and management of biodiversity. Labs will be a mixture of local projects and trips to sites of interest for conservation. Prerequisite: Biology 221. *Also offered as Environmental Studies 340.*

343. Evolution.

In this course we examine life on earth from a historical perspective and evaluate the fundamental evolutionary processes that have produced the diversity of life that we see today. Study topics include the origin of life on earth, mutation as the creator of genetic variation, natural selection, adaptation, population genetics, speciation and extinction. Phylogenetic analyses are compared using morphological and molecular character data sets. Laboratory projects are designed to develop technical skills in molecular biology and phylogenetic analysis. Specific laboratories include a fossil hunting field trip and a research project involving phylogeny of local species. Three hours of lecture and three hours of laboratory per week. Prerequisites: Biology 101, 102. Recommended: Biology 245 or 246.

360. Marine Ecology.

The marine environment is the largest portion of the earth's biosphere and holds an amazing diversity of microbial, plant and animal life. We will cover the biology of these organisms, their ecological interactions, their adaptations to the dynamic ocean environment and their importance to humanity. Topics will include the life histories, behavior, ecology and commercial use of marine organisms, as well as abiotic factors (e.g., salinity, nutrients, water currents and tides, ocean floor spreading) that influence them. Lectures and some labs will be taught on campus, though most labs will be conducted off campus during a spring break field trip to a marine lab. Thus, some students can take this class major credit restricted while others can take it as a regular lab course. Students choosing to attend the field trip will need to pay extra class fees (please check with the instructor for details)

and will also need to know how to snorkel (and own their own gear). Prerequisites: Biology 101, 102 or equivalent. Recommended: any of Biology 215, 221, 330, 380 and Chemistry 103, 104.

380. Tropical Ecology.

A seminar course based on current research in tropical biology. Emphasis is on the structure, function and biology of tropical organisms and ecosystems, especially as compared to temperate systems. Lectures concentrate on the New World rainforests, with less coverage of Australasian and African systems. The course will address the role of mutualisms, sustainable development and other conservation measures, and the roles of indigenous cultures in tropical ecosystems. Prerequisite: Biology 221. Major credit restricted. *Also offered as Environmental Studies 380 and through Native American Studies and Outdoor Studies.*

386. Advanced Animal Physiology.

A one-semester advanced course dealing with the properties, composition and function of living matter and its reactions to internal and external agents. The physiology of the nervous, circulatory, respiratory and excretory systems is considered in detail, as are the basic and applied physiology of the digestive and endocrine systems. Mechanisms of integration of the various physiological systems are stressed. Three hours lecture and one three-hour laboratory per week. Prerequisites: Biology 326 and two semesters of organic chemistry or permission of instructor.

390. Research Methods in Transmission Electron Microscopy. (.5 unit)

This course will offer students detailed instruction in the use of a transmission electron microscope (TEM). Most of the learning is accomplished in a laboratory setting where students learn techniques for sample fixation, embedding in plastic resins, ultramicrotomy, glass knife making, thin film preparation and photographic techniques. The theory of instrument operation will be stressed. A detailed examination of cell ultrastructure will also be offered. As a half-unit offering, the course will meet for about half the semester. Meeting times are by arrangement. Prerequisites are any 200- or 300-level science course or permission of the instructor.

391. Research Methods in Scanning Electron Microscopy. (.5 unit)

This course will offer students detailed instruction in the use of a scanning electron microscope (SEM). Support techniques such as critical point drying, specimen coating (standard vacuum and sputter coating), specimen fixation, black and white photographic techniques and computer image acquisition and analysis. The theory and practice of energy dispersive x-ray analysis (EDAX) for determining atomic element makeup and element mapping will also be learned. As a half-unit offering, the course will meet for about half the semester. Meeting times are by arrangement. Prerequisites are any 200- or 300-level science course or permission of the instructor.

392. Microscopy Project. (.5 unit)

This half-unit module is designed to allow students to develop and carry out a small research project with either the TEM or SEM/EDAX. This module may be taken concurrently with the corresponding half-unit microscopy modules but may be taken at a later time as well. Students should not take more than one unit total of the half-unit modules in this research methods series in

one semester. As a half-unit offering, this project should be completed in about half the semester. Students are encouraged to develop their project in consultation with other science faculty with whom they are working on research. Meeting times are by arrangement. Prerequisites include Biology 390 or 391 or permission of the instructor.

394. Research Methods in Biochemistry.

This course will introduce basic laboratory techniques and skills that are common in fields related to biochemistry. The first half of the semester will be devoted to learning basic techniques. During the second half of the semester, students will apply those techniques to complete a guided research project. Attention will be paid to both theory and application. Students will develop a methodology notebook and will prepare lab reports for each exercise. The project will be written up in the style of a journal article. There will not be separate lecture and lab periods; all learning will be done in the laboratories, which will meet two afternoons per week plus a half-hour recitation section by arrangement. Prerequisites: Chemistry 222 *and* any one of Biology 245, 246, 250, 312, 331, 391 or Chemistry 309 (which can be taken as co-requisite). This course is required for the biochemistry major and also carries credit toward the biology major/minor. *Also offered as Biochemistry 394.*

395. Research Methods in Molecular Biology.

Molecular techniques have revolutionized how biologists address problems in genetics, medicine, ecology, systematics, conservation and many other fields. In this course, students will obtain hands-on experience using basic and advanced molecular techniques, such as western blotting, nucleic acid (DNA and RNA) isolation and purification, DNA sequencing, gel electrophoresis and polymerase chain reaction (PCR), to study gene expression and genetic variability. The molecular techniques studied in this course are the same techniques that are used in laboratories across the country and around the world. In addition to gaining practical experience in the laboratory, students will learn about the theories behind each molecular protocol and study how biologists apply molecular techniques to answer fundamental biological questions.

447, 448. Special Topics.

Courses on topics not regularly offered in the curriculum. May include a laboratory. Prerequisites depend on course content and consent of instructor. Major credit restricted unless otherwise stated at registration.

460,461. Seminar in the Techniques of Teaching Biology.

Seminar includes participation in the review, revision, preparation and presentation of materials in the lecture and laboratory portions of the general biology course and responsibility for presenting a seminar concerning a week's core curriculum and for student evaluation. Biology 460, no credit, may be repeated. Biology 461 may be taken once for one-half unit of credit following one semester of 460. Major credit restricted.

462, 463. Seminars in Biology.

Intensive investigation by a group of students and staff member(s) of advanced topics not regularly offered in the curriculum. Students are responsible for preparation and presentation of much of the course content. Prerequisite: permission of instructor. Major credit restricted.

470, 471. Tutorial in Biology.

Independent study under the tutorage of a faculty member (other than field or laboratory research) on a topic of mutual interest. Prerequisite: sponsorship by a faculty member. Major credit restricted.

One unit of the following may apply to the minimum eight for the major; otherwise, major credit restricted.

482, 483. Research Projects. (.5 or 1 unit)

Field or laboratory research projects for students desiring to pursue directed, independent research in biology. Open to advanced students majoring in biology. Prerequisite: sponsorship by a faculty member.

499. Honors Projects. (.5 or 1 unit)

Research projects and seminars required for students wishing honors in biology (see Honors). Requirements: preceptorship of a faculty member and guidance of a committee of at least three faculty members.

Biology-Physics

Interdisciplinary major offered

Students may elect an interdisciplinary major in biology and physics as a basis for work or advanced study in such fields as biophysics, radiation biology, radiological health or environmental science. The major is also acceptable for pre-medical students.

Required Courses

- Four units of biology: 101, 102, 326, 386.
- Four units of physics, must include 221, 222.
- Two additional units chosen from appropriate courses in biology or physics at the 200 level or above.
- Two units of chemistry: 221, 222.
- A senior research project in some area of biophysics, with advisors from both biology and physics departments

Recommended Courses

- Chemistry 331
- Mathematics 205

Advising is provided through both the biology and physics departments. Since this major is expected to serve students with a wide range of interests, anyone interested is encouraged to consult with these departments about appropriate scheduling of courses, including interdepartmental offerings.

Students contemplating this major should also be aware of possibilities for advanced placement in chemistry, mathematics and physics courses that could provide added flexibility to their programs. For instance, students with good high school backgrounds in physics should register for Physics 151, 152 and not Physics 103, 104.

Canadian Studies

Combined major and minor offered

Professors Jockel, Thacker (director); **Assistant Professor** Forkey (visiting). *Also Professors* Gould (sociology), Harris (environmental studies), Perry (anthropology), Schwartz (environmental studies); **Associate Professors** FitzRandolph (economics), Jaunzems (English), LeClerc (sociology), Thornton (global studies); **Assistant Professors** Parmenter (history), Tremblay (modern languages and literatures).

The Canadian studies program seeks to combine the advantages of St. Lawrence's proximity to Canadian political, cultural, economic and academic centers with the University's traditional commitment to high-quality teaching of undergraduates in the liberal arts.

The program is interdepartmental: the vast majority of courses on Canada are taught by faculty in several academic departments. These offerings provide opportunities for students to pursue Canadian affairs as an excellent sub-area of study within a major, or simply as an area of interest. Departments with Canadian offerings in their curriculum include anthropology, economics, English, environmental studies, fine arts, global studies, government, history, modern languages and literatures (French) and sociology.

Interdisciplinary courses are also taught under the rubric of Canadian studies. These include Introduction to Canada, Canadian-American Relations, the Junior/Senior Seminar and various special topic courses (recent examples of the latter are Native Peoples of Canada and Canadian Pacific: The West in Confederation). There are also options for internships, independent projects and honors theses.

Combined Major Program

Under the Canadian studies combined major program, students fulfill all of the major requirements of one department in the social sciences or humanities, such as English, government or history. In addition, they (1) pursue a Canadian studies core consisting of an independent project plus the Introduction to Canadian Studies and the Canadian-American Relations courses and (2) choose four Canadian studies electives from the offerings of the several academic departments. These department electives should be partially drawn from the department of the student's combined major. For example, a student pursuing a combined major in history and Canadian studies should select at least one Canadian history course, thereby meeting a major requirement in both history and Canadian studies and, in the process, reducing the number of electives needed for the combined major.

Such a combined major provides students with the opportunity for special study within the traditional major as well as the ability to pursue both the methodological depth of that traditional discipline and the multidisciplinary breadth of Canadian studies.

All Canadian studies combined major programs require the following courses:

101. Introduction to Canada.	1 unit
201. Canadian-American Relations.	1 unit
401. Junior/Senior Seminar. <i>or</i> 479,480. Internship. <i>or</i> 489,490. Independent Project. <i>or</i> 498, 499. Honors Thesis.	1 unit
Electives from offerings in Canadian studies in the various academic departments	$\frac{4 \text{ units}^*}{7 \text{ units}^*}$

**Electives from the department offerings should be chosen partially from the electives in the departmental half of the student's combined major. A combined major of up to 14 courses is thus possible. In no case may more than 16 courses be pursued for a combined major.*

Minor Requirements

To minor in Canadian studies, a student is required to take Canadian Studies 101 and 201 and three courses on Canada from those offered by the several academic departments. The three

elective courses must be approved by the director of the Canadian studies program.

Study in Canada Option

The St. Lawrence program in Canada is a logical complement to the Canadian studies program. Students (not necessarily those pursuing a Canadian studies combined major) may participate for either the fall or spring semester or for the entire academic year. Most of our students have studied at McGill University in Montreal, but arrangements may be made at several universities across Canada. For example, students have recently spent time at Laval University in Quebec City and Carleton University in Ottawa. In addition, the program has a standing arrangement with Trent University in Peterborough, Ontario, where qualified students may pursue a diploma in Canadian studies while concurrently fulfilling their St. Lawrence degree requirements.

Interested students should see the program director for more details.

The following may be undertaken under the supervision of one of several faculty members. Students should discuss their proposals with faculty members whose areas of expertise are relevant.

Departmental Offerings

Anthropology

330. Native Cultures of Canada.

Economics

223. Perspectives on the Canadian Economy.

English

239. Introduction to Canadian Literature.

358. Canadian Fiction.

Environmental Studies

285. Canada-United States Environmental Issues.

Fine Arts

212. Canadian Art.

French

202. Advanced French.

410. Francophone Literature and Culture.

Government

325. Government and Politics in Canada:
An Introduction.

372. Canada in World Affairs.

History

201. Canadian History.

251. British-French North America, 1606-1787.

Sociology

275. Medical Sociology.

342. Canada in Context.

Courses

101. Introduction to Canada.

This is a multidisciplinary seminar designed to provide students with a comprehensive introduction to Canada. The course stresses the basics of geography, history, economics, politics and culture. At the same time, it uses contemporary events and issues (such as ongoing debate over Canada's constitutional and economic directions) to demonstrate the importance of geographic fact, historical frictions and political diversity to an understanding of the Canadian nation(s). Major consideration is given to the ways Canada is both similar to and different from the United States.

201. Canadian-American Relations.

This course consists of an examination of the economic, cultural, military and environmental aspects of the Canada-United States relationship, as well as of the public and private institutional arrangements involved in the maintenance of that relationship. Although the evolution of the Canadian-American interaction is dealt with, the emphasis is on the contemporary period. Prerequisite: Canadian Studies 101 or permission of the instructor.

401. Junior/Senior Seminar.

An advanced seminar involving student research and visits by experts on Canadian and Canadian-American affairs. Seminar topics to be announced. Open to combined majors; other students with permission of instructor.

479,480. Internship.

Prerequisite: permission of program director.

489,490. Independent Project.

Prerequisite: permission of program director.

498,499. Honors Thesis.

Prerequisite: permission of program director.

Caribbean and Latin American Studies

Minor offered

Professors Cornwell (philosophy), Gould (coordinator; sociology), O'Shaughnessy (government), Stoddard (English), White (modern languages and literatures); **Associate Professors** Caldwell (modern languages and literatures), Farley (music), Flores (sociology); **Assistant Professors** Bass (English), Casanova-Marengo (modern languages and literatures), Llorente (modern languages and literatures), Ramirez-Sosa (biology).

Caribbean and Latin American Studies (CLAS) is an interdisciplinary program designed to introduce students to the richness and diversity of the cultures, societies and ecologies of Central and South America, Mesoamerica and the Caribbean. Within the broader context of global processes and relationships, the program emphasizes understanding the experiences of Caribbean and Latin American peoples: political and economic structures and changes, both peaceful and violent; population processes and transitions; environmental stresses and local responses; post-colonial and cultural theories; forms of expression in music, dance and literature. Because of the program's global and comparative emphasis, the CLAS minor complements many of the University's majors and minors.

Minor Requirements

A CLAS minor serves as a strong foundation for graduate and professional studies and a variety of professional careers by preparing students to be informed and responsible global citizens. The minor consists of six courses. Each student must take the core course, Introduction to Caribbean and Latin American Studies, and five additional courses. Four of these must be courses that are cross-listed with Caribbean and Latin American Studies. Students must also participate in an upper-level research seminar or an independent study project approved by the CLAS Advisory Board. To ensure breadth of learning, students should take no more than two cross-listed courses in any academic division (arts, humanities, social sciences and sciences).

Language Requirement

CLAS minors must successfully complete one 200-level Spanish or French language course or the equivalent. Successful completion of two semesters of other languages spoken in the Americas also fulfills this requirement.

Study Abroad

CLAS encourages students to immerse themselves in one of the societies of the Caribbean or Latin American region to experience and to test what they learn through classes and readings on campus. Through a study abroad pro-

gram students can develop their language skills, live with families, observe from a different location the power exercised by the U.S. over the region; discover the diverse environments, identities, cultures, and histories of the people in the host society; have the opportunity to take a full load of CLAS courses that would not be available on campus. To focus on the Caribbean region, students can study in English at the University of the West Indies in Trinidad and Tobago. Those who are qualified in Spanish can enroll through the ISEP exchange program at a university in the Dominican Republic.

Students interested in Latin America have several options, depending on their level of Spanish and their academic interests. Two approved programs are in Costa Rica: one in Golfito, which emphasizes tropical ecology and culture (requiring Spanish 104), the other in San Jose at the Universidad de Costa Rica (requiring Spanish 200). In addition, students highly proficient in Spanish can enroll for a semester or year at one of 17 Latin American universities (in Argentina, Colombia, Mexico, Nicaragua, Uruguay) through ISEP. A student proficient in Portuguese could enroll through ISEP in Brazil.

Course

The following course is offered regularly at St. Lawrence. Additional courses in Central America are available as part of the St. Lawrence program in Costa Rica and in the ISEP programs.

CLAS 104. Introduction to Caribbean and Latin American Studies.

This interdisciplinary core course is designed to introduce students to the richness and diversity of Latin American cultures, the region's turbulent history of conquest and colonization and the problems of its development. The course familiarizes students with the vitality of Latin American art and literature. Our final objective is to relate Latin American culture with *cultura latina* in the United States. The course provides a framework for more advanced studies on Caribbean and Latin American themes.

Departmental Offerings

Cultural Encounters

335. Comparative Studies in Racial and Cultural Identities.

Economics

336. Economic Development.

English

224. Caribbean Literature in English.

Government

228. Latin American Politics.

250. Cultural Encounters in the Americas:
The U.S. and Puerto Rico.290. Research Seminar. (*Latin American emphasis*)

324. Democratic Transitions in Latin America.

339. Theology of Liberation.

365. Inter-American Relations.

489/490. Independent Projects.

Modern Languages and Literatures*French*

202. Advanced French. (Caribbean emphasis)

410. Francophone Literature and Culture.

489/490. Independent Study.

Spanish

103,104. Intermediate Spanish.

201. Advanced Spanish.

202. Hispanic Cultural Studies.

211. Introduction to Latin American Cultures.

344. Introduction to Hispanic American Literature.

345. Stylistics and Translation.

346. Oral Expression in Spanish.

443. Contemporary Hispanic American Literature.

489/490. Independent Study.

Music

204. Music in Latin American Culture.

240. Musics of the World.

Sociology

228. Racial and Ethnic Groups.

253. Race, Class and Environmental Justice.

271. Revolution.

319. Population and Contemporary Social Issues.

403. Independent Study.

407. Senior Seminar.

(senior project must have a CLAS focus)

476. Globalization and Sustainability.

Course Offerings in the Program in Golfito, Costa Rica

Aesthetic African Influences in Contemporary Caribbean Art.

Maritime Anthropology.

Neotropical Mammals.

Introduction to the Natural History of Costa Rica.

Marine Ecology.

Sociobiology of the Purruja Mangrove Reserve.

Conversation and Spanish Grammar.

Additional information and a complete list of the approved courses for the minor can be obtained through the coordinator for Caribbean and Latin American studies or the office of international education and intercultural studies.

Chemistry*Major and minor offered***Professors** Connett, Rupp; **Associate****Professors** French (chair), Marano; **Assistant****Professors** Gao, Greathouse.

Visit the chemistry department Web page via www.stlawu.edu and follow the academics link.

Chemistry is hailed as the central science, a distinction merited by the role it plays in understanding the functioning of the natural world. Technological innovations spawned by advances in chemical science can either dramatically improve or negatively affect our quality of life and the environment in which we live. Public policy and societal issues of enormous magnitude involving the potential application of chemical knowledge are constantly before us. A fundamental understanding of chemical concepts, the types of questions chemistry addresses and the tools applied in pursuit of solutions positions one to productively inform public debate and to be a responsible citizen.

The focus of the chemist is at the atomic and molecular levels, on the structure and function of molecules, their interactions with other molecules, their transformation into new substances and the physical laws that govern these processes. In just one example, which spotlights the major subdisciplines of the field and their integration, a biochemist might identify an enzyme critical to the survival of a viral pathogen and elucidate the structure of that enzyme's active site. An organic chemist might identify or create a novel chemical entity that can fit into this active site in a way that prevents the enzyme from performing its job - catalysis of a biochemical transformation. A physical chemist might then develop a computational approach to understanding the nature of this interaction,

which makes it possible to design a new molecule that binds even more tightly and works even better. An inorganic chemist might develop a catalyst that makes it possible to synthesize efficiently and specifically large quantities of this substance for use as a pharmaceutical. The analytical chemist would devise instrumental methods for ensuring the integrity of each batch of drug manufactured, for quantifying its purity and for delineating the nature and level of impurities present. An environmental chemist might critically evaluate each step in the synthesis process with an eye toward reducing harmful waste streams and rendering manufacture of the drug more environmentally benign.

The chemistry department offers a program noted for close student-faculty collaboration in and out of class and at every level from general chemistry through the senior year research experience. The curriculum is bolstered by outstanding instrument and computer facilities that enable us to offer exciting laboratory experiences and provide wonderful support for faculty-student research projects. Computers play an integral role in teaching and research activities in the department beginning with the general chemistry laboratory that makes extensive use of real time data acquisition and processing with PC-linked probes and sensors. Students have access to state-of-the-art molecular modeling and visualization software. An impressive collection of instrumentation is available for hands-on student use in both laboratory and research settings including a recently acquired 300 MHz nuclear magnetic resonance spectrometer.

While completing one of two possible major plans, students can prepare themselves for future educational opportunities including graduate study in chemistry, biochemistry, the pharmaceutical sciences, oceanography, environmental science and geoscience among others. An undergraduate chemistry degree is a prelude for many on the way to medical, dental, veterinary, law and related professional schools. Alternatively, a degree in chemistry can be crafted in conjunction with the appropriate education courses to position one for a career in secondary school science education. Finally, bachelor-

level chemistry graduates are employed in many areas of industry and commerce including research and development, marketing and sales, management, banking and patent law.

In addition to the major, a student may opt for a six-course minor in chemistry or pursue a combined major in environmental studies and chemistry. The department also offers a biochemistry major in collaboration with the biology department.

Major Requirements

A student majoring in chemistry elects from two basic courses of study:

Plan 1 requires a minimum of nine or 10 units in chemistry and provides basic preparation for medical or dental school and secondary school teaching. It also provides greater flexibility for those who wish to participate in study abroad programs. Students are required to complete Chemistry 103-104 or 105, 205, 221, 222, 341, 342, 351, 352 and the senior project (one of 478, 479, 489 or 490). Two semesters of calculus (Math 135, 136) and physics (either Physics 103-104 or 151-152) are also required. We recommend completing the math requirements in the first year and physics during the second.

Plan 2 requires a minimum of 11 or 12 units in chemistry and is endorsed by the committee on professional training of the American Chemical Society (ACS); satisfactory completion of this course of study entitles the student to certification by the society. Those contemplating graduate study in chemistry or careers in industrial research are encouraged to opt for this plan. The ACS certified degree requires Chemistry 103-104 or 105, 205, 221, 222, 341, 342, 351, 352, 403, 452 and the senior project. The senior project must involve original research (one of 489 or 490). Two semesters of calculus (Math 135, 136) and physics (calculus-based Physics 151-152) are also required.

Note that to fulfill prerequisites for moving from Chemistry 104 or 105 to 221 and 205 and from 221 to 222 requires grades of 2.0 or higher.

Planning

It is extremely important that those considering a major in chemistry complete general chemistry, the prerequisite to all upper level courses, during their first year. Although the courses required to major in chemistry are almost completely prescribed, some flexibility is possible in their timing within the curriculum to allow for participation in study abroad programs or late starts in the major. Such departures from the normal path should be made only with guidance from your advisor. It is important to note and schedule appropriately the necessary mathematics and physics prerequisites for upper-level chemistry courses, particularly Physical Chemistry. Good planning results from effective advising. All first-year students contemplating a major in chemistry are encouraged to formally or informally establish a secondary advising relationship with a member of the department as soon as possible.

Typical Major Curriculum

Year	Courses
First	General Chemistry (103,104 or 105)
Second	Organic Chemistry (221,222) Quantitative Analysis (205) (fall)
Third	Physical Chemistry (341,342) Advanced Organic Laboratory Synthesis, Separation, Analysis (351)(fall) Physical and Inorganic Laboratory (352) (spring)
Fourth	Advanced Inorganic Chemistry (403)(fall)* Instrumental Analysis (452)(spring)* Senior Project

*Requirement for the American Chemical Society certified major (Plan 2).

Suggested Courses

Many of the most important and stimulating chemical research areas involve projects at the interface of chemistry with other disciplines including biology, geology, physics, psychology and computer science. Based on their interests students should consider introductory and advanced coursework in at least one of these disciplines.

Minor Requirements

Eligibility to declare a minor in chemistry is obtained by completing Chemistry 103-104 and 221-222 and a minimum of two additional chemistry courses at the 200 level or above.

Combined Major

A combined environmental studies-chemistry major is available. Refer to the entry for Environmental Studies in this *Catalog* for details.

Advanced Standing

Students who have taken Advanced Placement chemistry in high school and received a grade of 4 or 5 on the advanced test are eligible to receive one unit of college credit for Chemistry 103. These students are eligible to enroll in Chemistry 104 in the spring but are encouraged to consider taking accelerated General Chemistry section 105 in the fall instead.

Research and Independent Study

Student research is at the heart of the chemistry curriculum and culminates in a year-long senior project carried out in close collaboration with a faculty mentor. Examples of recently completed senior projects can be found at the department's Web page. (A variety of project options are available. Most involve laboratory-based research or computational work.) For the senior project, students enroll each semester in one of the following courses (479, 480, 489 or 490) for which they receive .5 units of credit each. Students undertaking the American Chemical Society certified degree option must enroll in 489 or 490 and complete a project that involves original research.

Students are also encouraged to avail themselves of research opportunities prior to the senior year. Both academic year and a limited number of paid summer research assistantship positions are available every year. The Stradling Fund provides a stipend for a research assistantship each summer and other sources of funding are normally available to support summer student research.

Certification to Teach Chemistry

Students seeking initial certification as a 7-12 chemistry teacher in New York must major in chemistry and also complete the certification minor in education. Chemistry majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the chemistry major and the pre-certification minor in education (or its equivalent) as undergraduates. Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Seminars

The department hosts a series of seminar speakers throughout the academic year; attendance at these events by all majors is encouraged and is a requirement for seniors as part of their senior year project.

Honors

Chemistry department honors require a minimum GPA of 3.5 in major courses, original research and the submission and defense of a thesis. The student must assemble a thesis committee including three faculty members (at least two from chemistry) prior to the end of the first semester of his or her senior year. The committee will conduct the oral examination that is part of the student's presentation and defense. Qualified students can elect to complete the requirements for honors within the context of the senior year project. A minimum grade of 3.5 on the senior project is required for honors.

Awards

The department recognizes outstanding performance by students in research and in the capacity of teaching assistant with annual Clarke L. Gage prizes. A local honorary society, Chymist, offers membership to junior and senior majors who have completed at least six units of chemistry with a GPA of 3.5 or higher and who have overall GPAs of 3.2 or higher.

Courses

103, 104. General Chemistry. (1.25 units each)

An introductory chemistry course for science and non-science majors. Fundamental principles are presented for the systematic study of the properties of atoms and molecules and their transformation into new substances. Topics include the study of atomic structure, atomic properties and their periodic trends, gases, redox systems, kinetics, equilibria, thermodynamics and electrochemistry. The laboratory experiments are closely coordinated to reinforce the lecture topics and to provide experience in the data-gathering and evaluative processes. Elementary quantitative analysis techniques are used in most experiments. A significant portion of the second semester laboratory work involves qualitative analysis. Lectures plus one laboratory period per week. Prerequisites: secondary school algebra or enrollment in a college mathematics course. Chemistry 103 is a prerequisite for 104. A grade of 2.0 or higher in 104 is required to fulfill the prerequisite for enrollment in 200-level courses.

105. Accelerated General Chemistry. (1.25 units)

A one-semester introductory chemistry course designed primarily for those with strong high school preparation in chemistry. Atomic theory, periodic trends, chemical bonding, thermodynamics, kinetics, equilibrium chemistry and electrochemistry are presented. Completion of 105 with a grade of 2.0 or higher satisfies the general chemistry prerequisite for enrollment in 200-level courses. Course includes lectures plus one laboratory per week. Students not majoring in chemistry may elect to take a second semester of general chemistry laboratory (without lecture) to satisfy admissions requirements for some medical programs. Prerequisites: secondary school algebra or enrollment in or completion of a college mathematics course. It is suggested that students contemplating enrollment in this course consult with the instructor or department chair. Students may drop back into a traditional section of 103 at any point through the first examination.

106. Chemistry and the Environment. (1.25 units)

A one-semester course designed for non-science majors and environmental studies majors. Basic chemical concepts are examined with special reference to the environment. Topics include elements and compounds; atomic structure and the periodic table; chemical change, energy and entropy; oxidation and reduction; acidity; and the ten questions a chemist needs to answer before fully characterizing a chemical reaction. These topics are related to pollution, waste management, recycling, energy sources and the limits to growth. Lecture plus one laboratory period per week. *Also offered as Environmental Studies 106.*

205. Quantitative Analysis. (1.25 units)

An introductory course dealing with the chemical, physical and logical principles underlying quantitative chemical analysis. Among the broad topics treated are data evaluation, titrimetry, solution equilibria, potentiometry and absorption spectroscopy. Lectures plus one laboratory per week. Prerequisite: Chemistry 104 or 105 (with a 2.0 grade or higher) or permission of instructor. *Also offered, with variations, as Environmental Studies 205.*

221, 222. Organic Chemistry. (1.25 units each)

An introductory course focusing on the chemistry of naturally occurring and synthetic carbon compounds; description and determination of structure with an emphasis on spectroscopic methods; reactivity and its theoretical basis; mechanism; and synthesis of organic compounds. The microscale laboratory emphasizes preparation, purification and identification of organic compounds, isolation of organic substances, mechanistic studies and separation techniques. Spectroscopic methods are applied to structure elucidation. Prerequisite: Chemistry 104 or 105 with a grade of 2.0 or higher for 221. A grade of 2.0 or higher in Chemistry 221 is a prerequisite for 222.

306. Environmental Chemistry and Toxicology.

This course is designed for chemistry majors and students in environmental studies who have a strong background in chemistry. It explores the sources and levels of chemical pollutants, the pathways along which they move through the environment and the toxicological effect they have on humans and other living things. A laboratory program accompanies the lecture. Prerequisite: Chemistry 221 or permission of instructor. *Also offered as Environmental Studies 306.*

309. Biochemistry.

The course is organized around several themes: the relationship of structure to function in biomolecules, production of energy, regulation and control of metabolism. Topics covered to illustrate these themes include enzyme action and regulation, hemoglobin and the transport of oxygen and carbon dioxide, metabolism of carbohydrates for energy production, structure and function of biological membranes, and structure and function of molecules involved in transmission and expression of genetic information. Prerequisite: Chemistry 222 or permission of instructor.

341. Microscopic Physical Chemistry.

Quantum theory with applications to the understanding of atomic and molecular structure and chemical reactions, computational chemistry and statistical thermodynamics. Prerequisites: Chemistry 104 or 105, Physics 104 or 152, Mathematics 136.

342. Biophysical Chemistry.

Thermodynamics; derivation of state variables, their application to the prediction of direction and extent of chemical reactions. Specific applications to biochemistry will be considered. Topics include equilibria, chemical kinetics, catalysis, reaction rate theory and photochemistry. Prerequisites: Chemistry 104 or 105, Physics 104 or 152, Mathematics 135.

351. Advanced Organic Laboratory Synthesis, Separation, Analysis.

Experimental emphasis on advanced laboratory techniques associated with organic synthesis, structure elucidation and study of reaction mechanism. Examples include diastereo- and enantioselective reactions, low temperature reactions, organometallic reagents, sample manipulation, multistep syntheses, natural product isolation and structure determination. Various chromatographic separation techniques are explored. Analysis by IR, GC GC-MS, multi nuclear 1 and 2 dimensional NMR and UV-VIS are integral to experiments. Classroom presentations on theory associated with reactions undertaken, separation science and spectroscopic analysis accompany and complement the laboratory work. This course is designated to be writing inten-

sive; special emphasis is placed on written and oral presentation of experimental results. Two lectures and two laboratories per week. Normally taken by first-semester juniors, and required of all chemistry majors. Offered only in the fall semester. Prerequisite: Chemistry 222.

352. Physical and Inorganic Chemistry.

The laboratory experiments include examination of physical and thermodynamic properties of substances and the preparation of inorganic compounds. Spectroscopic methods are used to study fundamental properties of molecules. Products of inorganic syntheses are characterized using a variety of techniques, which may include ultraviolet-visible, infrared and nuclear magnetic resonance spectroscopy, magnetic susceptibility, optical characteristics, etc. The kinetics investigations may use inorganic synthesis products to measure rates of isomerism and hydrolysis. The use of computers is strongly emphasized for report writing, data manipulation, graphical presentations, etc. The classroom material presents the theoretical and practical background material to the laboratory experiments. A portion of the course is to be devoted to molecular modeling and mechanics. Two lectures and two laboratories per week. Normally taken by second-semester juniors, and required of all chemistry majors. Offered only during the spring semester. Prerequisites: Chemistry 205 and 341 or 342.

378, 379. Special Studies for Juniors.**389, 390. Research for Juniors.****403. Advanced Inorganic Chemistry.**

A study of physical inorganic chemistry directed toward understanding trends in the periodicity of the elements. Topics include chemical bonding and molecular structure, acid-base theories and the descriptive chemistry of the nontransition elements. Prerequisite: Chemistry 341, 342.

415. Advanced Biochemistry.

A variety of topics are covered in depth depending on the interests of the students. The course begins with an overview of metabolism and its hormonal regulation. Other topics may include some of the following: protein synthesis and targeting, molecular immunology, sensory systems and neurotransmission, hormone action, membrane transport, oncogenes and cancer, photosynthesis and advanced topics in metabolism. Topics of current interest may also be included. Through both written and oral presentation students develop their abilities to use the scientific literature and communicate in science. Prerequisite: Chemistry 309 or permission of instructor.

421. Advanced Organic Chemistry.

An advanced course built upon the study and discussion of noteworthy achievements in the synthesis of natural and non-natural products. Topics considered within the broad context of novel synthetic methodology, control and selectivity in chemical transformations, stereoselective carbon-carbon bond formation, manipulation of oxidation level, radical based methods, formation of small and large ring systems, organometallic reagents, carbene, carbocation and carbanion chemistry, pericyclic reactions, host-guest and supramolecular chemistry, bio-organic chemistry of natural products and bio-mimetic synthesis. Includes extensive use of primary literature and lectures and student-led discussion. Formal student presentations are required. Prerequisites or co-requisites: Chemistry 222 and 342.

452. Instrumental Analysis.

An advanced course emphasizing instrumentation in methods of chemical analysis. Principal instrumental methods examined include absorption and emission spectrometry, electroanalytical methods and chromatographic and other separation methods. Some introduction to analog and digital signal processing principles and computer-assisted data acquisition and processing is presented. Two lectures and two laboratories per week. Prerequisites: Chemistry 205, 342, 352.

478, 479. Special Studies for Seniors.

489, 490. Research for Seniors.

Computer Science

Major and minor offered

Professors DeFranza, Knickerbocker, Sheard;
Assistant Professor Ladd.

The computer is a tool of profound complexity in practice but of equally profound simplicity in definition. The study of computer science at St. Lawrence University brings together the theory and practice of computing to solve a wide range of problems. Computer science considers problem solving in the abstract, developing a set of intellectual skills for finding and designing solutions that will benefit majors and non-majors alike. All students are encouraged to take advantage of these courses to explore abstract problem solving and the use of modern computers.

Computer science majors can take advantage of the sequence of programming courses that lay the foundation of general problem solving and the use of computer technology to express those solutions. Advanced courses focus on the theory and practice of computation in the study of languages as mathematical constructs and in the design and analysis of algorithms. These courses prepare computer science majors for the many careers where computers and problem solving play a central role, such as software development, telecommunications design, computer graphics and even technical writing. Majors can pursue advanced degrees in computer science as well as biomechanical engineering, business administration and pure mathematics. At St. Lawrence,

majors have many opportunities to conduct independent research during paid summer internships, independent study courses and senior research projects.

Computer science courses can augment the learning of all students, not just computer science majors. Programming courses can help non-majors develop useful abstract problem solving and technical skills; with computers playing a broader role in many disciplines, these skills are of increasing importance.

The computer science major is a fairly young major at St. Lawrence, but the commitment to learning with and about technology has a long pedigree. The information technology infrastructure supports computer science courses taught in fully computerized classrooms, networked access to class resources and the use of advanced machines and capabilities in upper-level courses.

Major Requirements

The requirements for a major in computer science include ten courses following a "4-3-2-1" scheme: four required basic courses, three required core courses, two electives and one senior project. There is also a required mathematics course.

Basic Courses (four required)

140. Introduction to Computer Programming.
219. Techniques of Computer Science.
220. Computer Organization.
319. Data Structures.

Core Courses (three required)

362. Algorithm Analysis.
364. Programming Languages.
380. Theory of Computation.

Electives (any two)

Any computer science course at the 300+ level.
Math 394. Numerical Analysis.

Senior Project

400. Senior Project for Majors.

Mathematics Requirement

280. Bridge to Higher Mathematics.

Advanced Placement

Students who enter St. Lawrence with a 4 or 5 on the Advanced Placement Computer Science A test will receive credit for Computer Science 140. Students who enter with a 4 or 5 on the Advanced Placement AB test will receive credit for Computer Science 140 and 219. Other students may begin in Computer Science 219 if their background is sufficiently strong. The 140 requirement will be waived for such students, but they will not receive university course credit.

Mathematics Requirement

The only required mathematics course for the Computer Science major is Math 280 (Bridge to Higher Mathematics). Ideally it should be taken no later than the semester in which a student takes Computer Science 319 (Data Structures) and before Computer Science 362 (Algorithm Analysis) and 380 (Theory of Computation). Students are also strongly encouraged to take Math 135 (Calculus I) and should consider other courses in mathematics.

Senior Project

The required senior project can be an individual research project, an individual programming project or a group programming project. In any case, it must include a substantial written component and an oral presentation of the final product.

Minor Requirements

The minor in computer science consists of six courses, including Computer Science 140, 219, 220, 319 and two additional computer science electives at the 300-level or above.

Combined Major

St. Lawrence offers a combined major in mathematics and computer science. A description of this major is given in the *Catalog* section entitled Mathematics-Computer Science.

Courses

105. Concepts in Computation.

This course will introduce students to problem solving in a technological environment. Problems will be chosen from among a variety of application areas, including the World Wide Web,

spreadsheets, computer graphics and high-level computer programming languages. There will be discussion of issues relating to technology's impact on society, to include ethical and legal issues. Students who have passed CS 140 or 219 may not receive course credit for this course.

140. Introduction to Computer Programming.

This course gives students an introduction to programming using a high-level language, with emphasis on problem solving and algorithm development. Computer programming skills are enhanced through individual student projects.

219. Techniques of Computer Science.

An in-depth look at computing and programming using high-level languages. Topics include advanced programming techniques and efficient algorithms for the solution of problems on a computer. Students complete a large programming project. Prerequisite: Computer Science 140 or the equivalent.

220. Computer Organization.

Topics include data representations, digital circuits, the organization of CPUs, machine language and an introduction to assembly language programming. Prerequisite: Computer Science 219. Offered spring semester.

289,290. Independent Projects in Computer Science.

Permission required.

317. Mathematical Logic.

See Mathematics 317.

318. Graph Theory.

See Mathematics 318.

319. Data Structures.

Techniques and algorithms for the organization, representation and processing of data on the computer. Topics include strings, lists, stacks, queues, trees and graphs, as well as their applications. Prerequisite: Computer Science 219. Offered fall semester.

332. Programming on the World Wide Web.

The World Wide Web provides a unique computing environment. The course will introduce students to the terminology of the Web and the Hypertext Markup Language (HTML) as well as concepts of distributed computing including client-side and server-side programming. Small, concept-focused assignments give students a range of experience writing Web pages and programs to produce Web pages. Students will then have considerable freedom to select a larger group project that they will complete and present to the class. A term paper on a technical aspect of the World Wide Web is also expected.

334. Distributed Computing.

Distributed systems—collections of communicating computing devices—are of great and growing importance in the modern world. Collections as diverse as the parts of a VLSI chip, clustered computers and even the Internet are examples of distributed systems. This course will foster an understanding of the algorithms used to permit distributed computing devices to coordinate their activity across space and time. Students will see these algorithms first-hand by implementing a series of increasingly challenging distributed programming projects. Prerequisites: Computer Science 319 and 220.

362. Algorithm Analysis.

Students learn techniques and methods for designing, analyzing and testing the efficiency and performance of computer algorithms. The course also includes an introduction to the theory of polynomial reducibility. Prerequisite: Computer Science 319 and Math 280.

364. Programming Languages.

This course consists of two parts: a comparison of various computer languages and their uses and a study of the concepts and organization of computer languages. Prerequisite: Computer Science 220 or 319.

370. Systems Programming.

An introduction to computer system design and use. Topics may include assemblers, interpreters, compilers, loaders, macroprocessors and operating systems. Prerequisite: Computer Science 220.

374. Artificial Intelligence.

This course introduces the concepts and uses of artificial intelligence. Possible topics include search strategies, natural language processing, expert systems, neural nets and robotics. Prerequisite: Computer Science 319.

380. Theory of Computation.

This course fosters a depth of understanding of the basic theoretical underpinnings of computer organization and programming. Students will learn the Chomsky hierarchy of languages and how to design various classes of automata to recognize computer languages. Application of mathematical proof techniques to the study of automata and grammars enhances students' understanding of both proof and language. Students will learn to communicate their new understanding through a combination of written assignments and class presentations. Prerequisite: Computer Science 319. *Also offered as Mathematics 380.*

389,390. Independent Projects in Computer Science.

Permission required.

400. Senior Project for Majors.

Permission required.

Cultural Encounters

Minor offered

Coordinator: Alden (English; associate dean for international and intercultural studies)

Cultural encounters is a multidisciplinary program for students interested in enhancing their knowledge of cultural interactions and their ability to understand, live and work in a culturally diverse world. It is of value to students in any major. In addition, cultural encounters courses provide helpful preparation for students considering off-campus study. Students interested in completing the minor take a mini-

um of three cultural encounters courses. They are required to take at least one, preferably two, before participating in a study abroad program or the Fisk University program. Participation in an off-campus program is required for the minor, along with two semesters of study of a foreign language, a requisite for learning about another culture from within its own terms. Upon returning from off-campus study, students take a 300- or 400- level cultural encounters course designed to integrate their experiences and fieldwork off campus into their personal and intellectual development.

Cultural encounters courses:

- Are comparative and raise critical questions about the nature of cultural change and interaction.
- Explore both the complex interaction of traditions and the inequalities that affect cultural interchange.
- Recognize that all societies have diversity arising from ethnicity, race, gender, class and caste and other distinctions. The readings and other course materials reflect that diversity.
- Include texts, broadly construed, produced by the peoples under study.
- Place pedagogical emphasis on the student as knower, as a culture bearer seeking to encounter the unfamiliar object of study. There is a long history in the West of objectification, of "orientalizing" peoples from outside the West. Cultural encounters courses aspire to avoid replicating these forms of knowing. They aspire also to teach students to be self-conscious about their relationships to the objects of study.

All of the following courses count toward the cultural encounters minor.

Courses

150. Introduction to Intercultural Studies.

This course will lead students from an examination of their own identities and social locations to an understanding of how those identities exist in a global matrix of cultural, economic and political relationships. Students will be introduced to various theoretical and political positions on identity, including essentialism, social construction, strategic essentialism, hybridity, and multiplicity. This will be done through film and fiction as well as

theory with a focus on such differentiating categories of identity as gender, race, ethnicity, class, spirituality and sexuality. While much of the material will be drawn from the contemporary era, the historical context of European conquest and expansion and the Middle Passage will be used to frame a critical examination of the evolving ideas of "America" and the "West." *Also offered as Global Studies 102.*

212. Creative Expressions of Health and Healing.

This class will compare how health, healing and spirituality intersect with the arts from several different cultural perspectives, including those of U.S. medicine, Tibetan Buddhism and selected indigenous peoples of North and South America. The course will seek both understanding of different cultural traditions and critical reflection on how those traditions are appropriated and represented by Western institutions and popular culture. We will study original works of art, gallery exhibitions, performances and film/video, which will be supplemented by theoretical texts throughout the semester. This course does not require an arts background, and we encourage students who are interested in the links between health and healing, spirituality and creativity to consider this class.

330. Writing About Cultural Encounters.

This is a capstone course for students in the cultural encounters minor. It is also an appropriate elective for any student who, having returned from a study abroad program, wishes to reflect on that experience within the framework of the cultural encounters minor. (It may also be elected by interested international students and students who have some other kind of immersion experience in a culture other than their own.) The seminar uses student writing—primarily creative nonfiction, personal essays and journalistic feature writing—to explore issues that arise when learning about another culture firsthand. We will read cultural theorists, other scholars and creative writers to develop the thinking, discussing and writing done in this course. Topics will include: problems representing a culture, including how to incorporate voices from other cultures; problems arising in finding one's own voice and perspective in writing about the encounter with another culture; reflections on one's position within, and responsibility to, a world made more complex through the experience of living in another culture.

335. Comparative Studies in Racial and Cultural Identities.

This is a senior seminar designed to fulfill the goals of the Cultural Encounters program: to prompt students to synthesize and re-evaluate their academic study of cultures, their experiential learning off campus and their own social locations and identities. The course content will be a comparative analysis of racial, ethnic and cultural identities; readings will be drawn from literature, contemporary cultural studies theory and philosophy of race, gender and identity, supplemented by films shown outside of class. A significant portion of the readings will be drawn from "critical white studies," looking at the ways white supremacy has been constructed and maintained in both historically specific and transnational ways. The course will pay particular attention to the interrelations between gender and race in different regions, especially as this is revealed through attitudes toward miscegenation and mixed-race identities. Students will be required to complete and present a major research project and to write a self-reflective analysis of their own identities and locations.

352. Travel and Tourism as Cultural Encounter.

This course will offer students a chance to reflect upon and integrate their own study abroad experience. We will ask questions about their perceptions and representations of other cultures. It will also allow a chance for students to reflect critically on the ways their studies and experience have enlarged, and perhaps confused, their capacities for appreciating different ways of living. Questions of power, representation and identity will be at the center of all our work. The course will also provide students with a setting to articulate and reflect upon their own emerging ethical and political positions. It will help them see that, indeed, there are consequences to such positions, for us and for others.

412. Senior Seminar: Cross-Cultural Perspectives of Healing.

Around the world many alternatives exist to Western allopathic medicine. This course will explore the philosophical, practical and medical definitions of health and disease from a number of Western and non-Western traditions. The course will begin with the Hippocratic tradition, go through Western theories of health and disease and then consider non-Western approaches to health and disease. For example, The Islamic Code of Medical Ethics, The Oath of a Muslim Physician, the Oath of Initiation (from the Caraka Samhita), medical ethics in ancient China and the 17 Rules of Enjuin will all be discussed as they relate to their appropriate medical traditions. We will discuss how the principles described in these readings apply to questions of beneficence, promise keeping, autonomy, killing and prolonging life and the healer/patient relationship within the various medical traditions. Preference to students who have taken one Cultural Encounters course or participated in a study abroad program. *Class size limited to 16.*

Departmental Offerings

Anthropology

255. Environmental Perception and Indigenous Knowledge.

343. Famine.

Economics

228. African Economies.

English

190. Critical Study of Literature.

(Specific sections designated Cultural Encounters.)

344. Ethnic American Women Writers.

Fine Arts

330. The Museum as Cultural Crossroads.

Global Studies

245. The Making and Unmaking of the Third World.

335. Global Gender Violence.

Government

105. Introduction to Comparative Politics.

(Specific sections designated Cultural Encounters.)

History

105. Early East Asian Civilization.

254. The Rise of the New Europe.

377. Colloquium in Asian History.

Music

240. Musics of the World.

342. New Orleans Music and Society.

Philosophy

203. Ethical Theory.

332. Africana Philosophy.

Religious Studies

270. Fundamentalism as Cultural Encounter.

331. Pilgrimage as a Spiritual Journey.

Economics

Major and minor offered

Professors Blewett (chair), Richardson, Young;
Associate Professors Chezum, FitzRandolph,
Horwitz; **Assistant Professors** Del Rossi,
Gottschall (visiting), Jenkins, Kroll.

Economics is broadly defined as the study of principles governing the allocation of scarce resources among alternative uses. More specifically, economics includes the study of efficient resource allocation, the distribution of income, the overall level of economic activity, economic growth and international trade and finance. The economics curriculum is designed to familiarize the student with economic theory, to provide knowledge about economic institutions, to foster the development of skills in applying economic analysis to contemporary issues and to create a foundation for intelligent citizenship.

Many students combine their interest in economics with another discipline. They may double major by satisfying the requirements in economics and another department, they may elect a combined major with African studies, Canadian studies or environmental studies or they may pursue the interdisciplinary major in economics-mathematics (see below).

Economics majors find many opportunities for careers in business, law, teaching and government. Upon graduation, students who have majored in economics generally pursue one of two paths: some enter directly into employment, while others enter graduate programs in economics, law, business or public administration.

Major Requirements

A major in economics consists of nine to 12 units in economics, including Economics 100, 200, 251 and 252. Majors must take a minimum of four economics electives at the 200 level or higher (at least three must be at the 300 level). Also required is one unit from the department's Senior Year Experience offerings: Economics 450 (Senior Seminar) or 489/490 (Senior Honors Project). Majors must maintain a grade point average in economics of at least 2.0 and must earn a grade of at least 2.0 in both Economics 251 and 252.

Students interested in majoring in economics should take Economics 100 (Introduction to Economics) as early as possible, preferably during their first year. Credit for Economics 100 will be granted to students who earn a grade of 4 or 5 on the College Board's Advanced Placement Examinations in microeconomics or macroeconomics.

Economics 200 (Quantitative Methods in Economics) is a research methods course required of all majors. It is recommended that this course be taken as early as possible, preferably before Economics 251 and 252. Students who are less confident in their mathematical skills should take Mathematics 113 (Applied Statistics) prior to Economics 200.

Economics 251 (Intermediate Microeconomic Theory) and Economics 252 (Intermediate Macroeconomic Theory) are economic theory courses required of all majors. Every 300- and 400-level course in economics has either Economics 251 or Economics 252 as a prerequisite. Potential majors are advised to take Economics 251 and Economics 252 during the sophomore year. First-year students can register for Economics 251 and Economics 252 by permission only.

It is expected that Economics 251 and 252 be taken at St. Lawrence. Exceptions to this policy are granted only to transfer students in special cases. Courses taken at other universities or as part of off-campus study programs do not normally satisfy the 300-level requirement.

Although Accounting 201 does not count toward the major in economics, it is strongly recommended that economics majors take this course at some point during their time at St. Lawrence. Students should work closely with their academic advisors to select courses for the major and those interested in graduate programs should plan accordingly.

Students interested in graduate study in economics are advised to pursue the economics-mathematics interdisciplinary major or to take as many courses in that major as possible. Students interested in graduate work in business are advised to take Economics 201 (Accounting), Computer Science 140 (Introduction to Computer Programming), Mathematics 135 (Calculus I) and Economics 313 (Financial Economics).

Minor Requirements

A minor in economics consists of at least six courses in economics including Economics 100, 200, 251 and 252. Minors must maintain a grade point average in economics of at least 2.0.

Certification to Teach Social Studies

Students seeking initial certification as a 7-12 social studies teacher in New York can major in economics. In addition to completing the certification minor in education, students majoring in economics must also take: one government course (Government 103—Introduction to American Politics—is recommended if no other government course is taken); History 101 (The Rise of Europe), 102 (The 20th-Century World), 103 (Development of the United States, 1607 to 1877) and 104 (Development of the United States, 1878 to present); Cultural Encounters 150 (Introduction to Intercultural Studies); *and* at least *one* course in the major that illuminates U. S. and/or world history and geography. Students are also encouraged to take courses in other social sciences and area studies to round out their preparation for teaching social studies.

Economics majors intending to complete student teaching in the University's Post-Bacca-

laureate Teacher Certification Program after graduation must complete the pre-certification minor in education (or its equivalent) as undergraduates and all the social science requirements listed above (or their equivalents). Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Honors

Department honors are awarded to students who have, upon graduation, at least a 3.5 average in economics courses and have successfully completed an honors project. Students who expect to pursue an honors project should consult with the department chair in the last semester of their junior year. (See also Honors in the Curriculum section of this *Catalog*.)

Courses

Accounting

201. Accounting.

An introduction to financial and managerial accounting concepts. Emphasis is placed on the use of accounting information in decision making. Topics covered include financial statements, cost behavior analysis, uses of relevant costs in performance measurement, managerial planning and control. Includes a weekly, computer-oriented laboratory session. Not open to first-year students.

Economics

100. Introduction to Economics.

A general introduction to the discipline of economics, including both microeconomics and macroeconomics. The course is designed to develop an understanding of how economic principles and analysis can be used to study social problems and issues. Topics include supply and demand, comparative advantage, inflation, unemployment, economic growth, money and the banking system. Applications and issues will vary by section.

108. Economics for Environmentalists.

An introduction to the basic concepts, tools and theories of microeconomics that are applied to problems typically associated with the use of the environment. The course begins with basic microeconomic principles, advances to important economics theories that are commonly used to describe environmental resource allocation problems and concludes with an examination of case studies. Case studies include air pollution and acid rain, destruction of rainforests, climate change, alternative sources of energy and waste disposal. This course does not count toward the major or minor in economics or economics-environmental studies and is not open to declared economics majors or first-year students. Prerequisite: Environmental Studies 101 or permission of the instructor. *Also offered as Environmental Studies 108.*

200. Quantitative Methods in Economics.

An introduction to mathematical and statistical techniques used in economic analysis. Topics include the representation of economic hypotheses, sources and uses of economic data, probability, hypothesis testing and regression analysis. Emphasis is on the application of statistical techniques to economic problems. Prerequisites: Economics 100. *Students less confident in their mathematical skills should take Mathematics 113 prior to Economics 200.*

205. Government and Business.

The purpose of this course is to understand how market failure has led to government intervention in the form of regulation and antitrust. Students will examine how regulation and antitrust developed in the United States economy. They will also be asked to examine the tools used to implement government policy and how these policies work in theory and practice. A key question asked is, "Does the government improve the market outcome?" A more recent trend in government has been to reduce government influence in markets. This requires that we "deregulate" many markets that government has historically regulated. The course concludes with an examination of how the government can open regulated markets to competition and what legal and economic questions can and should be raised. Prerequisite: Economics 100.

215. A Novel View of American Economic History.

New York state was center stage in the 19th-century transformation of the American economy and a surprising number of the cast of characters were from northern New York. This course seeks a deeper understanding of American economic development by studying the "North Country" perspective. Novels by Irving Bacheller, Samuel Hopkins Adams and Carl Carner, and biographies of Silas Wright, David Parish and John Brown are included in the reading. Seminar format emphasizes discussion and writing. Prerequisite: Economics 100.

223. Perspectives on the Canadian Economy.

A comprehensive overview of the Canadian economic system. Topics include the historical evolution of the Canadian economy; an examination of Canada's natural resource base and its relationship to economic growth; the relationships among Canada's political structure, bilingual culture and economic system; and trade, investment and the ramifications of Canada's close economic ties to the United States. Prerequisite: Economics 100. *Also offered through Canadian Studies.*

228. African Economies.

An overview of sub-Saharan African economies. The course analyzes current development and structural adjustment issues and examines basic economic principles, problems and indigenous institutions within an African context. Contrasts and comparisons with North American counterparts are made throughout the course. Special emphasis is placed on exploring how cultural differences impact economic activities and institutions. Students learn of the diversity and complexity of economic relationships in African societies and increase their understanding of economics in their own society. Prerequisite: Economics 100. *Also offered through Cultural Encounters and African Studies.*

234. Comparative Economic Institutions.

The goal of this course is to gain a broad perspective on the history of the economies of the West, East and Third World by comparing

the kinds of economic institutions and, to a lesser extent, cultural norms generally found in each. A discussion of the economic arguments for markets and planning will provide the theoretical framework for some detailed exploration of the rise of capitalism in the West, the rise and fall of socialism in the East and the influence that both systems, along with colonialism, have had on the Third World. The focus will be on the relationship between the kinds of political-economic institutions societies adopt and the economic consequences that follow from them. In exploring those consequences, the course will make use of both descriptive and statistical evidence. Majors in other social sciences or area studies programs are encouraged to enroll. Prerequisite: Economics 100. *Also offered through European Studies.*

236. Globalization Issues: Equity, the Environment and Economic Growth.

This course will examine issues surrounding the globalization of the economy. Do globalization and economic growth contribute to increased inequality within countries and among them? Under what circumstances do global market forces contribute to the impoverishment of already disadvantaged nations and to the benefit of the already advantaged? What is the relationship between economic growth and damage to environmental resources? Under what circumstances do global market forces contribute to the degradation of the environment? This course will endeavor to answer these questions and more, beginning with a study of recent literature by professional economists as well as by examining other data and evidence. Prerequisite: Economics 100.

251. Intermediate Microeconomic Theory.

The study of the determination of the prices of goods and services and factors of production in a market economy. Includes consumer behavior, theory of the business firm, various types of market structure and the role of prices in the allocation of resources. Prerequisite: Economics 100.

252. Intermediate Macroeconomic Theory.

A study of economic aggregates, including the determination of national income, employment and the price level. Inflation, unemployment, economic growth and the appropriateness and effectiveness of monetary and fiscal policies are discussed. Prerequisite: Economics 100.

289, 290. Independent Project.

Individual study of a topic under the supervision of a faculty member. Prerequisites: GPA of at least 3.0 in economics and permission of instructor.

305. Industrial Organization and Public Policy.

A theoretical and empirical analysis of the structure, conduct and performance of American industry. Emphasis is placed on the use of microeconomic theory to analyze the effects of public policies on market incentives and resource allocation. Topics include theories of the firm, monopolization, mergers, antitrust law, price fixing, price discrimination and other contemporary problems. Prerequisite: Economics 200 and 251.

307. Law and Economics.

This course analyzes the law using economic principles. In particular, it employs the techniques of microeconomic theory in the study of policy issues and legal rules traditionally thought of as non-economic in nature. Topics such as property rights,

externalities, contract law, tort law (accidents), product liability and criminal adjudication are critiqued in terms of how different incentive structures motivate economic actors. In addition, the course includes the study of how economic goals conflict with and complement other goals of the law such as justice and fairness. Prerequisite: Economics 251.

308. Environmental Economics.

An analysis of deficiencies of the market system and the existing property rights structure that generate pollution problems in industrial society. Alternative policy options are considered, including incentive-based approaches and cost-benefit analysis. Prerequisite: Economics 251. *Also offered as Environmental Studies 308.*

309. Labor Economics.

A study of labor markets and the role they play in the determination of wages, employment and working conditions. The demand for labor by employers, leisure-labor supply decisions by households, investment in human capital, distribution of earnings among individuals and the effects of labor unions are discussed. Emphasis on the role of government policy in the areas of income maintenance, unemployment, education and occupational health and safety. Prerequisites: Economics 200 and 251.

311. Banking and Monetary Policy.

This course explores the roles of money, banks and government policy in promoting economic growth and stability in a modern economy. In particular, the course investigates the operational principles of modern banks and the Federal Reserve System and compares their strengths and weaknesses to other historical and theoretical banking systems. The course focuses on the effects of monetary institutions and policy on macroeconomic stability, including inflation, deflation and business cycles. Other topics may include the history of American banking, current issues in bank regulation, electronic money, the role of financial markets and international monetary economics. Prerequisites: Economics 251 and 252.

313. Financial Economics.

This course investigates topics in corporate finance and investments. Among the subjects to be discussed are the role of financial intermediaries and financial instruments, the time value of money, bond valuation, stock valuation, risk and return, market efficiency, capital budgeting, the capital structure of firms, mergers, options and futures. Prerequisites: Economics 251 and 200.

315. Public Sector Economics.

This course uses microeconomics reasoning and models to examine the efficiency of markets and to enumerate potential roles for government when markets fail. The efficiency and equity of government expenditures and tax policies are examined by looking at their impact on individual behavior and the distribution of income. Current policies of state, local and federal governments will be examined to see how real world complications (like politics and information problems) can lead to outcomes that are very different from economic prescriptions. Prerequisite: Economics 200 and 251.

322. International Economics.

This course focuses on the theory of international trade and finance and its application to current policy problems such as protection, intervention in foreign exchange markets, interna-

tional debt and foreign investment. Prerequisites: Economics 251 and 252 or permission of instructor. *Also offered through European Studies.*

330. History of Economic Thought.

Analysis of the development of major economic concepts. Ideas are examined for their relevance both to their own time and to ours. Coverage extends from the ancient philosophers into the 20th century, with special emphasis on the original writings of Adam Smith and Karl Marx. Prerequisites: Economics 251 and 252 or permission of instructor. *Also offered through European Studies.*

333. Austrian Economics.

An introduction to the body of ideas associated with the Austrian school of economics. The Austrians flourished early in the 20th century and were known for their critiques of equilibrium theory and econometrics as well as their opposition to Keynesianism and economic planning. These out-of-step views were responsible for their eventual downfall in the 1940s. Recently, there has been a revival of interest in the ideas of the Austrians. The Austrian concept of competition as a process of learning and discovery, their view of humans as actively entrepreneurial and the emphasis on the problems created by poor monetary institutions have all received increasing attention by mainstream economists. Topics to be covered in this course include the nature of economics, the role of knowledge in the market, competition and antitrust, business cycles and monetary policy, the problems of socialism and regulation and the Hayekian critique of social justice. Prerequisites: Economics 251 and 252.

336. Economic Development.

This course examines the problems of economic growth and development in the less developed countries (LDCs) of Asia, Africa and Latin America. Although a variety of approaches to development economics will be studied, the analysis of new institutionalist economics will be emphasized. By the end of the semester, participants should be able to understand: (1) the economic diversity, as well as the diversity of development problems, among LDCs, (2) the conditions necessary or conducive to economic growth and the institutional hindrances to growth and (3) the economic implications of alternative development strategies and policies. Prerequisites: Economics 200, 251 and 252.

342. Econometrics.

A study of statistical techniques economists have found useful in analyzing economic data, estimating relationships among economic variables and testing economic theories. Topics include multiple regression, probit and logit analysis, heteroscedasticity, autocorrelation, distributed lag models and simultaneous equations models. Prerequisites: Economics 200, 251 and 252.

343. Time Series Analysis.

Statistical methods for analyzing data that vary over time are investigated. Topics include forecasting systems, regression methods, moving averages, exponential smoothing, seasonal data, analysis of residuals, prediction intervals and Box-Jenkins models. Application to real data, particularly economic data, is emphasized along with the mathematical theory underlying the various models and techniques. Prerequisite: Math 136 or permission of the instructor. *Also offered as Mathematics 343.*

344. Mathematical Economics.

This course offers a systematic study of the mathematical structure of economic theory, with emphasis on the application of calculus and linear algebra to economic analysis. Topics include optimization theory, comparative statistics analysis of market and macroeconomic models, general equilibrium analysis, input-output models and game theory. Prerequisites: Economics 251, 252, Mathematics 205 and 217.

348. Special Topic in Economics.

A seminar on a special topic in economics. The class participates in research activities centered on the topic, with a view toward enhancing knowledge of the subject and research skills. Course description is provided in the *Class Schedule*.

362. Topics in American Economic History.

This course provides an overview of the economic development of America from the colonial period to the present and examines in detail several of the classic controversies of the new economic history. Emphasis is placed on the role economic theory can play in understanding pivotal events of the American experience. Prerequisites: Economics 200, 251 and 252. Also offered as *History 362*.

384. Natural Resource Economics.

This course complements Economics 308 (Environmental Economics). The main focus is on non-polluting human uses of the natural world, such as resource extraction, recreation and wilderness preservation. Standard economic approaches to problems of natural resources are presented and criticized from a variety of different perspectives to give students a deeper appreciation of the role of economic analysis in coping with natural resource scarcity. Specific topics covered include economics and population growth, economics and environmental ethics, ecological economics and sustainability, biodiversity and water resources. Prerequisites: Economics 200 and 251. Also offered as *Environmental Studies 384*.

389, 390. Independent Project.

Individual study of a topic under the supervision of a faculty member. Prerequisites: GPA of at least 3.0 in economics and approval by the department.

450. Senior Seminar.

The purpose of the seminar is to provide an integrative experience for senior majors that will allow them to use what they have learned in previous courses to study a particular issue in economics. Writing, speaking and research skills will be emphasized. The issues and topics that form the basis of the seminar will vary by semester and instructor. Prerequisites: Economics 200, 251 and 252 and senior standing. Course description will be provided in the *Class Schedule*.

489, 490. Senior Honors Project.

These courses are for senior majors who are eligible for department honors. Each student plans and writes an honors thesis under the guidance and supervision of a faculty member. Prerequisites: GPA of at least 3.5 in economics and approval of the department.

Economics- Mathematics

Major offered

The disciplines of economics and mathematics are closely related in many respects. Economics has relied heavily on mathematical analysis in the development of economic theory, while mathematics has provided solutions to optimization and control problems posed by economists. Economists have also used modern statistical techniques to test their theories, and mathematical statisticians have developed procedures appropriate for analyzing economic data. The interdisciplinary major in economics-mathematics gives students an opportunity to explore the relationship between these disciplines through a highly structured program of study.

The objectives of the interdisciplinary major are:

1. To provide students whose primary interest is economics an opportunity to study economic theory and applied economics more thoroughly and more rigorously than is possible in the usual curriculum.
2. To introduce important areas of economics and applied mathematics to students whose primary interest is mathematics or computer science.
3. To provide a background for students interested in graduate study in economics, applied mathematics and management science.
4. To provide training in statistics and econometrics for those entering directly into employment upon graduation.

Major Requirements

Economics

- 100. Introduction to Economics.*
 - 200. Quantitative Methods in Economics.
 - 251. Intermediate Microeconomic Theory.
 - 252. Intermediate Microeconomic Theory.
 - 342. Econometrics.
 - 344. Mathematical Economics.
- Electives at 300-400 level (2)

Mathematics

135. Calculus I.*

136. Calculus II.*

205. Multivariable Calculus.

217. Linear Algebra.

325,326. Probability and Mathematical Statistics. *or*

327,328. Optimization Theory.

Electives at 300-400 level (2)

**These courses may be omitted with advanced placement credit or other advanced standing.*

Honors in the interdisciplinary major are awarded in accordance with University policy on department honors (see Honors in the Curriculum chapter of this *Catalog*).

Students interested in the economics-mathematics interdisciplinary major should consult either the economics or mathematics department.

Education

Minors offered (certification or pre-certification)

Professor Clark; **Associate Professor** Shuman (chair); **Assistant Professors** Ladd, Lopez-Bernstein, Oey; **Instructor** Waterson.

Students at St. Lawrence may enroll in undergraduate education courses not only as a way to explore the multidisciplinary subjects of teaching and learning for their intrinsic values but also as a way of preparing to enter the teaching profession in public and/or private schools after graduation. The teacher education program offers two sequences of courses—a pre-certification minor in education that does not include student teaching, and a certification minor in education that culminates in the professional semester (student teaching) that is required for teaching certification. By completing the certification minor, students may be recommended for an initial New York State Teaching Certificate upon graduation. By completing only the pre-certification minor at an acceptable level, students will be eligible to enter the professional semester (student teaching) following graduation. The education department offers

opportunities for graduate study leading either to the initial certificate or to full professional certification in New York. The undergraduate and graduate programs also satisfy academic requirements for teaching certification in many other U.S. states and Canadian provinces.

The teacher education programs at St. Lawrence are based on the conviction that teachers must be highly competent in their subject areas (e.g., English, science, mathematics, etc.) and that a liberal arts education provides such competency. In addition, a liberal education prepares teachers to approach problems and inquire into ideas from multiple perspectives, qualities that are in turn modeled to their students in the schools. Integration of teaching skills and subject matter competencies is achieved throughout the student's career at St. Lawrence, through coursework in subject matter and pedagogy, by field experiences in public schools, and by study with practicing professionals who teach the program's courses in subject-specific instructional approaches.

The undergraduate program operates from a premise that the professional semester is a natural extension of the liberal arts tradition where learning is exemplified in its broadest possible sense. Rather than being principally dispensers of knowledge, liberally educated teachers reflect the thinking, exploration and intellectual climate that is the basis of all education at St. Lawrence. The professional semester provides an excellent opportunity to synthesize learning throughout the undergraduate curriculum – coursework in the liberal arts, the major and the minor.

St. Lawrence offers the following teacher certification programs, which are registered and approved by the New York State Education Department for grades 7 to 12: English, social studies, mathematics, biology, chemistry, physics, earth science, French, Spanish and German. The University also offers a registered and approved teaching certification program for K-12 art.

New Requirements for New York State Teaching Certification

NOTE: The New York State Board of Regents established new regulations for teacher preparation in September 1999. The new regulations will apply to students graduating after December 2003. Although incoming students who will graduate after December 2003 may rely on the details and requirements published in this Catalog for graduation from St. Lawrence, they are advised to check with the education department and with their major advisors in the coming years to remain abreast of the details and requirements regarding recommendation for teaching certification. The programs described in this Catalog are registered and approved by the New York State Education Department and meet the new regulations.

Students graduating from St. Lawrence after December 2003 can be recommended for an initial teaching certificate in New York by successfully completing the following requirements:

1. A bachelor's degree in the liberal arts with an academic major in a discipline functionally related to the teaching certificate.
NOTE: For students seeking certification in 7-12 social studies, students must major in history, government, economics, sociology, anthropology, or global studies (U.S. studies option). Regardless of the major, 21 semester hours (or six courses) are required in the study of New York, United States and world history and geography. Specific requirements are outlined in the sections of the Catalog describing each separate major.
2. Completion of the certification minor (eight courses) in education, which includes the professional semester (student teaching).
3. A passing grade in at least one semester of study at any level in a language other than English.
NOTE: Students seeking teaching certification must complete one credit in a foreign language as one of the two courses needed to meet the liberal arts distribution requirement for graduation from St. Lawrence.

4. Passing scores on three of the New York State Teacher Competency Examinations (NYSTCE):
 - Liberal Arts and Sciences Test (LAST)
 - Content Specialty Test (CST in the area of certification)
 - Written Assessment of Teaching Skills (ATS-W)

NOTE: In 2000–2001, 97 percent of St. Lawrence teacher education students passed the LAST and 94 percent passed the ATS-W on the first time they took the exam. Data regarding achievement of St. Lawrence students on the CST is not available for 2000–2001.

5. Completion of specified workshops (offered in the professional semester curriculum) on topics mandated by New York Education Law:
 - The Identification and Reporting of Child Abuse
 - Safety and Fire Prevention in Public Schools
 - Violence Prevention in the Public Schools
 - Development of a Safe Learning Environment
 - Prevention of Alcohol, Drug, and Tobacco Abuse in School-Age Populations

With careful planning, these requirements can be completed during the four-year undergraduate curriculum, leading to teaching certification upon graduation. Students should check regularly with the education department at St. Lawrence to learn about changes to the requirements or the program.

Approximately 65 percent of the Class of 2000 teacher education graduates from St. Lawrence entered the teaching profession as new teachers within one year after graduation. Approximately 20 percent entered full-time graduate school and the remaining 15 percent followed other career paths. Teacher supply and demand data from the American Association for Employment in Education for the year 2001–2002 indicates that there is moderate demand throughout the U.S., including the Northeast, for teachers of 7-12 English, sciences, mathematics, Spanish and German. Demand for teachers of K-12 art and 7-12 social studies and French is balanced.

Minor Programs

Certification minor

Students may be admitted for the certification minor in education at any time during the sophomore year or later, providing they have good academic standing at the University. A 2.0 grade average is required in the certification minor for graduation and a 2.5 grade average in the pre-requisite courses is required for entry into the Professional Semester. The certification minor requires the following courses:

Education

203. Contemporary Issues in American Education.

301. Principles of School Teaching.

305. Educational Psychology.

455. Language Acquisition and Literacy Development Across the Curriculum.

Professional Semester (Student Teaching)

405. Seminar: The Dynamics of School Teaching.

406. Supervised Student Teaching.

410. Methods, Materials and Literacy Development in the Content Area.

(separate sections for each certificate area)

436. Individual Differences in Inclusive Classrooms.

The professional semester (student teaching) requires a full load of four courses in education, to be taken during one semester of the senior year. Student teaching in English, mathematics, science and social studies is offered only during the fall semester(s). Student teaching in foreign language and art is offered only during the spring semester(s).

In addition to the coursework in education, students seeking teaching certification should consider taking Speech and Theatre 111 (Rhetoric and Public Speaking).

Pre-certification Minor

The pre-certification minor in education consists of any five courses in education not included in the professional semester (student teaching). Students may be admitted for the minor in education at any time during the sophomore year or later, providing they have good academic standing at the University. A 2.0 grade average is required in the minor for graduation.

Students completing the certification minor with a grade of at least 2.5 in each course are eligible to apply for the professional semester as a post-baccalaureate student.

Criteria for Admission into Student Teaching

Students intending to student teach in any fall semester should submit an application to the Education Department by March 1 of the previous semester. Students intending to student teach during any spring semester should submit an application to the education department by October 1 of the previous semester. The Teacher Education Advisory Committee will review applications for admission into student teaching on the basis of the following criteria:

1. Senior standing (or higher) at the University – verified by transcript attached to the application.
2. Satisfactory social standing at the University – verified by communication from the dean of student life and co-curricular education.
3. Satisfactory academic achievement at the University – verified by one of the following:
 - a 2.5 cumulative GPA,
 - a 3.0 average the semester before student teaching, *or*
 - approval by the Teacher Education Advisory Committee.
4. Satisfactory completion at the 2.5 level or higher of the four prerequisite courses in education or their equivalents (Education 203, 301, 305 and 455).
5. Recommendation by the department of the academic major – verified by communication from the department chair or designee.

Students may register for the professional semester once they are admitted to student teaching by the Teacher Education Advisory Committee. Student teaching placements in the schools are arranged only by the University's coordinator of teacher education and the school administrators. Since weekly seminars during the professional semester are required, student teaching placements are generally made within St. Lawrence County.

Post-Baccalaureate Teacher Certification Program

For St. Lawrence undergraduates who do not complete the certification minor in education, the Post-Baccalaureate Teacher Certification Program offers an alternative route to initial teaching certification. In this graduate program, St. Lawrence students who complete the pre-certification minor in education as undergraduates and receive a grade of 2.5 or higher in each course may then apply for student teaching during any appropriate semester following graduation with a bachelor's degree. Students who undertake this option must apply to the education department both for admission to the graduate school and also to the professional semester. Their applications for student teaching will be reviewed by the Teacher Education Advisory Committee using the same criteria listed above. Students in the program will take the four courses of the professional semester as graduate level courses and pay graduate tuition. The courses will not count toward any master's degree at St. Lawrence.

The Post-Baccalaureate Teacher Certification Program is also open to St. Lawrence students (and graduates of other accredited colleges) who did not complete the prerequisite courses prior to graduation. In those cases, students must complete graduate courses in education that are equivalent prerequisites to student teaching, so the program will take longer than one semester. In addition, they must satisfy the University's requirements for subject matter competency in the teaching field. Information about application procedures and details regarding the Post-Baccalaureate Teacher Certification Program are included in the *Graduate Studies Catalog*, available from the department of education.

Initial Teaching Certification in Other States and in Ontario

The teacher preparation program at St. Lawrence provides sufficient academic preparation for initial certification in any other state that has a current reciprocity agreement with New York

state for teacher preparation. Currently, New York state has reciprocity agreements with more than 40 other states in the U.S. To be certified in any state, the student must apply directly to the education agency in charge of teaching certification in that state; if the student has already been certified in New York, the reciprocity agreements will hold for academic preparation, and the student must submit a copy of the New York certificate as a part of the application process. These reciprocity agreements do not include competency testing requirements, which each state may determine separately.

To meet standards for a Letter of Eligibility (initial certificate) in Ontario, Canada, students must meet all requirements (including testing) for certification in New York state. Because certification standards in other states and provinces are changing, students should check with the education department for details regarding specific certification requirements in any other state or province.

Courses

203. Contemporary Issues in American Education.

A multidisciplinary consideration of current issues in education, to serve as a vehicle by which students may explore the idea of entering the teaching profession. The course includes a multicultural examination of current educational issues through lectures, readings, research and discussions of position papers prepared by the student. A field experience is required. Registration priority to sophomores and juniors intending to enroll in the professional semester.

301. Principles of School Teaching.

This course is designed to help students develop effective techniques for teaching and creating a climate that is safe and conducive to learning in classrooms. Students learn through lectures, readings, field experience in the public schools, videotaped micro-teaching in small groups on campus and exposure to a variety of role models from the University community and the region. The uses of standards and objectives in curriculum development and assessment are examined. Techniques for acquiring and integrating information, refining and extending knowledge and team-teaching are explored. A field experience in the public schools is required. Registration priority to juniors and sophomores intending to enroll in the professional semester.

305. Educational Psychology.

A consideration of educational and psychological principles and theories applicable to learning, with emphasis on the public schools. Particular attention is paid to such areas as human growth and development, motivation, theories of learning and teaching, evaluation and assessment, student differences and

behavior management in the classroom. A field experience in the public schools is required. Registration priority to juniors and sophomores intending to enroll in the professional semester. Prerequisite: Psychology 100 or 101.

405. The Dynamics of School Teaching.

Student teaching seminar.

406. Supervised Student Teaching.

Students in the professional semester enroll in Education 405, 406, 436 and 410 for a full semester of student teaching in the public schools. General supervision by University supervisors in concert with cooperating teachers in the classroom setting. Education 405, 410 and 436 are taught intensively during the first four weeks of the semester, at which time student teachers undertake a 30-hour field experience in the classroom. Then the courses change to a weekly schedule for the remaining student teaching experience. Instructors discuss problems and concerns arising throughout the professional semester and assist student teachers in understanding their own socialization in the teaching profession. The course focuses on those aspects of teaching that promote the establishment and maintenance of a classroom environment that is both safe and conducive to learning. Special workshops in Education 405 cover state-mandated topics including school safety and fire prevention, violence prevention, the identification and reporting of child abuse and the prevention of drug/alcohol/tobacco abuse. Prerequisites: Education 203, 301, 305 and 455 or their equivalents. Enrollment by permission only.

410. Methods, Materials and Literacy Development in the Content Area.

As a part of the professional semester, separate sections of this course are offered in art, English, foreign languages, mathematics, social studies, and the sciences. Each section involves a study of standards and objectives, special techniques appropriate for the teaching of the particular subject, materials and aids for facilitating instruction, lesson and unit planning and assessment, and an analysis of problems unique to the teaching of the subject. Focus throughout the course is on strategies for language and literacy development in alignment with the New York state learning standards. Prerequisites: Education 203, 301, 305 and 455 or their equivalents. Enrollment by permission only.

416. Interpersonal Relationships, Communication and Leadership Strategies.

This course provides opportunities for students to focus on current leadership theories and practices, to develop awareness regarding the interconnectedness between communication and interpersonal relationships and to create a meaningful personal definition of leadership. The first half of each class period will concentrate on reviewing assigned readings focusing on discussion of concepts and theories and will include the introduction of new material. The second half of the class period will involve group process and structured exercises and leadership simulations, class projects and media appropriate to the weekly topics. Registration priority to juniors and seniors. Permission of instructor required.

436. Individual Differences in Inclusive Classrooms.

This course addresses the need for teachers to facilitate the learning of students with a variety of special needs in inclusive classroom settings. Attention is paid to the special education

referral and planning process spelled out by the Individuals with Disabilities Education Act (IDEA), the role of the classroom teacher in meeting the educational needs of mainstreamed students and strategies for helping all students to meet the New York state learning standards. A field experience in the public schools is required. Prerequisites: Education 203, 301, 305 and 455 or their equivalents. Enrollment by permission only.

455. Language Acquisition and Literacy Development Across the Curriculum.

A multidisciplinary consideration of the ways young people learn the language arts—speaking, reading, writing and listening—across the subject matter disciplines. This course addresses language acquisition and literacy development for students who are native English speakers and students who are English language learners. A field experience in the public schools is required. Registration priority to juniors intending to enroll in the professional semester.

489, 490. Independent Study in Education.

Graduate Programs

Graduate courses may be taken for graduate credit only. Undergraduate students who have three or fewer units to complete before graduation may enroll in graduate courses with the permission of the instructor. In addition to the Post-Baccalaureate Teacher Certification Program, St. Lawrence offers master's degree programs in teaching, educational administration and counseling, with programs leading to certificates of advanced study in educational administration and counseling as well. Completion of a master's degree program at St. Lawrence helps meet requirements for initial and/or professional teaching certification in New York as well as provisional and/or permanent certification in educational administration and/or school guidance. For information about graduate-level offerings in education, refer to the *Graduate Studies Catalog*, available from the department of education.

English

Majors and minors offered

Professors Alden, Bailey, Berger, DeGraaff, Glover, Grant (chair), Sondergard, Stoddard, Ward, Weiner; **Associate Professors** Jaunzems, Jenseth, Singer; **Assistant Professors** Bass, Breashears, Cowser, Hussmann; **Campbell Fellow** Boe; **Viebranz Visiting Writer** Sellers.

Visit the English department Web page at <http://it.stlawu.edu/~english> or link directly from the academics page at www.stlawu.edu.

The English department regards the teaching of writing and the teaching of literature as equally important. Courses in the department seek to help students read with comprehension and enjoyment and write with skill and grace, to appreciate their cultural background and explore its values, to understand the relationship between art and life and to discover the liberating qualities of the imagination. A major in English provides valuable preparation for careers in professional areas such as law, business, banking and public relations as well as those fields usually considered “literary” in nature: editing, publishing, journalism, advertising, teaching or librarianship.

In addition to courses in literature, the English department offers a writing track with courses in various forms of writing. Students may also elect the Environmental Studies/English interdisciplinary major. The department also cooperates in a program leading to New York state certification for teaching. The University’s semester program in England provides an international experience, including an extensive array of internships, which strongly supports majors in English and speech and theatre.

The Irving Bacheller Society, the English honorary, offers membership to students who have a 3.0 overall GPA and four or five English courses with a 3.5 average, or a 3.0 overall average and six or more English courses with a 3.25 average.

First-year students need departmental approval to take English courses at the 300 or 400 level, but all 200-level courses (except English 290) are open to them.

A unit of credit in the English major (and toward graduation) is given for a test score of 4 or 5 on the Advanced Placement test in English Language/Composition; a unit of credit is also given and counted as English 190, for a score of 4 or 5 on the Advanced Placement test in English Literature/Composition.

Upper-level English writing courses have specific course prerequisites; most upper-level literature courses have two courses at the 100 or 200 level as prerequisites.

Students who choose to major in English may elect the literature or writing track, but not both, nor can they both major and minor in English. However, students may take up to 14 units in English, which allows them an ample selection of both literature and writing courses.

Majors in the writing track are strongly encouraged to take English 225 (Survey of English Literature), the foundational course for our literary heritage.

Literature Track

The following are requirements for majors primarily interested in the study of literature:

1. A minimum of ten semester units in English literature. (Courses in journalism and creative writing do not meet this requirement.)
2. English 225 and 237 (survey courses in early British and American literature) and one other 200-level course.
3. At least one upper-level course from each of the following three groups:

Early British

- 315. Chaucer.
- 316. English Literature of the Middle Ages.
- 317. Renaissance Poetry.
- 319,320. Shakespeare.
- 322. Milton.
- 324. Elizabethan and Jacobean Drama.
- 325. 18th-Century English Literature.
- 339. English Novel I.

Later British

- 328. English Romanticism.
- 329. Victorian Poetry.
- 340. English Novel II.
- 343. Victorian Literary History.
- 349. Modern British and American Poetry.
- 353. Modern British Fiction.
- 355. Contemporary British Novel.

American

- 331. American Romanticism.
- 332. American Realism.
- 344. Ethnic American Women Writers.
- 346. American Literature and the Environment.
- 352. Contemporary Literature and the Environment.

- 354. The Modern American Novel.
 - 356. Contemporary American Novel.
 - 359. American Women Writers.
 - 368. Contemporary American Poetry.
- Two additional electives in literature at the 300 or 400 level.

4. Two other literature courses at any level.

Students may also take dramatic literature courses offered by the department of speech and theatre for credit in English when they are dual-listed with English.

For students planning to teach English at the secondary level, a literature major that includes English 225, 226, 237 and 238 (surveys of English and American literature) is recommended, along with the following additional courses: English 319 or 320 (Shakespeare) and 362 (English Language), Speech and Theatre 111 (Rhetoric and Public Speaking) or 113 (Introduction to Performance Studies). Students interested in teaching certification should consult the education section of this *Catalog*.

Students planning to enroll in graduate programs in literature should take an enriched major that includes both English 225 and 226 (surveys of British literature) and should consult with the department chair and their advisors carefully; such students should recognize that a reading knowledge of one or two modern languages is often required in graduate school. Students considering graduate programs in writing should consult closely with a faculty member who teaches creative writing.

The Writing Track

The following are requirements for majors interested in pursuing the study of language and literature through writing:

1. A minimum of ten semester units in English.
2. English 226 and 238 (surveys of later British and American Literature) and one other 200-level course. English 190 may count as this other 200-level course.
3. Five writing courses, at least two of which are in a sequence and two are outside that sequence.

Sequences include these English courses:
241,310. Fiction Writing.

- 242,311. Poetry Writing.
 - 201,309. Journalism.
 - 243,308. Creative Non-Fiction.
 - 244,306. Techniques in Screenwriting.
- Writing courses that are not part of a sequence include:*

English

- 290. Expository Writing.
- 305. Writing and Writing Theory.
- 223. Playwriting.
- 389,390,489,490. Independent Projects.

Outdoor Studies

202. Creative Expressions of Nature.
English 409 and 411 may also count toward the five-course requirement for the writing track. Students must complete the first course in a sequence before taking a second, although the first may be waived for those who present evidence of adequate preparation.

4. Two literature courses at the 300 or 400 level; students should try to select one of these in the genre of their creative writing sequence (e.g., fiction writers might take English 307, The Short Story, or a novel course; poets should take a course in poetry; creative non-fiction writers should look for special topics offerings in their genre).

Normally, students electing the writing track should not plan to take more than two writing courses in a semester. Since a background in literary study is considered essential to the development of good writers, students are urged to strive for balance in their course selection by enrolling in upper-level literature courses as well as in writing courses as part of their normal progress toward fulfillment of writing track requirements.

Environmental Studies/ English Major

The environmental studies/English major gives students an opportunity to combine seven core courses in environmental studies with eight core courses/electives in English (some from the writing track and some from the literature track), thus providing substantial study in both disciplines, as well as their intersection. The interdisciplinary major seeks to attract students who combine an interest in the environment with the desire both

to explore existing literature and to create new literature on environmental themes. Note that students pursuing this major may not also major in English literature or English writing. Please consult the environmental studies section of this *Catalog* for the complete list of courses.

Minor Requirements

The English department currently offers four ways to minor in English, each one consisting of a group of six courses.

1. The minor in literature requires English 225 and 226 (surveys of British literature), English 237 or 238 (one survey of American literature) and three 300- or 400-level courses in literature.
2. The minor in British literature requires English 225 and 226 (surveys of British literature), English 237 or 238 (one survey of American literature) and three 300- or 400-level courses in British literature.
3. The minor in American literature requires English 237 and 238 (surveys of American literature), English 225 (the first survey of British literature) and three 300- or 400-level courses in American literature.
4. The minor in writing requires English 225, 226, 237 and/or 238 (two surveys of British and/or American literature), three writing courses (two of which must be a sequence, listed above) and one 300- or 400-level course in literature.

Certification to Teach English

Students seeking initial certification as a 7-12 English teacher in New York must major in English and also complete the certification minor in education. English majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the English major and the pre-certification minor in education (or its equivalent) as undergraduates. Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Honors

To receive honors in English, students must achieve a minimum GPA of 3.5 in the major and submit for evaluation a critical or creative writing project of substantial length. Normally, the project is developed in English 495 (Honors Projects) under the direction of a faculty advisor; English 495 is offered only in the fall semester. Critical projects usually examine the works of a particular writer or a literary theme or practice that two or more writers share. Creative projects are usually collections of original poetry, fiction or prose essays. (See also Honors in the Curriculum chapter of this *Catalog*.)

Courses

125. Introduction to Dramatic Scripts.

Students are introduced to the formal aspects of play texts and develop the critical skills necessary to read plays and critique live and video performances. Representative dramas from the Greeks to the present are investigated in terms of character development, dialogue, settings and central ideas, as well as their original theatrical contexts—theatre architecture, stage conventions, scenic devices, costuming and acting techniques. The emphasis in this course is on analysis of scripts and the relationship among performance conditions, cultural context and dramatic conventions. *Also offered as Speech and Theatre 125.*

190. Critical Study of Literature.

A course designed to help students become more appreciative and discerning readers of literature. Students engage in careful reading of a variety of literary texts, selected to illustrate the uses of imagination and language in literature and some of the theoretical and methodological issues of interpretation. Although sections of the course vary in content and genre concentration, the main concern in each is with figurative language and the kinds of critical tasks students are usually asked to do in literature courses, such as paraphrasing, explicating, analyzing and interpreting. Students write extensively and in various modes throughout the course to facilitate their development as critical readers and thinkers. Recommended for most students beginning the study of literature at the college level.

201. Introduction to Newswriting.

A general study of journalistic principles and methods as well as extensive practice in the gathering and writing of news. Emphasis is on newspaper journalism.

212L. The London Stage.

Offered as part of St. Lawrence's program in England. Students read, view and discuss plays being produced in London during the semester. The formal study of the plays and their productions is supplemented by frequent attendance at various forms of theatre and occasional tours and lectures. Students with some background in drama may petition to take this course as 312L and substitute an independent project for the regular course work.

215. Dramatic Texts in Context.

How does a director decide what play to do and the style in which to do it? Answers to these questions are the guiding principles for the investigation of staging practices and plays that span from ancient Greece to those of 19th-century Europe. Students examine how theatrical space, scenery and props altered the theatre-going experience. In the end, we focus attention on how knowing the theatrical and cultural contexts of plays can help theatre practitioners make informed choices. *Also offered as Speech and Theatre 215.*

220. Introduction to African Literature.

This course introduces students to a wide range of literature, including poetry, plays and fiction, from many parts of Africa. The purpose is to explore the cultural fertility and diversity of literary production in an area of the world unfamiliar to most Americans. In addition, students gain insight into topics central to African/Third-World studies, such as the reaction and resistance to colonialism and the forging of complex cultural identities in a post-colonial culture. *Also offered through African Studies.*

223. Playwriting.

This course explores the processes of composition characteristic of the playwright. In a series of weekly assignments, various aspects of the art are introduced, e.g., characterization, dialogue, dramatic action and others. The course concludes with the writing of a one-act play. Students read exemplary plays from the modern repertoire. *Also offered as Speech and Theatre 223.*

224. Caribbean Literature in English.

A survey of literature by authors from formerly British colonies: Jamaica, Trinidad, St. Lucia, Barbados, St. Kitts and Dominica. This course considers colonial and post-colonial fiction, poetry and non-fiction by writers from various ethnic groups, including people of African, East Indian, Chinese and European descent. Representative authors are Derek Walcott, Jamaica Kincaid, V.S. Naipaul, Jean Rhys, George Lamming, Edgar Mittelholzer, Olive Senior, Erna Brodber and Michelle Cliff. *Also offered through Caribbean and Latin American Studies.*

225, 226. Survey of English Literature.

These courses provide an overview of British literature beginning with the Anglo-Saxon period and extending into the 20th century. English 225 covers some works in Old and Middle English (*Beowulf*, *The Canterbury Tales*), poetry and drama from the Renaissance, including Shakespeare's work and extends from the Restoration up to 1700. English 226 includes selections from Neo-classical, Romantic, Victorian and modern British literature. Students contemplating graduate study in English are strongly encouraged to take both courses. *Also offered through European Studies.*

230. Introduction to African-American Literature.

Beginning with a consideration of Frederick Douglass and the slave narratives of the 19th century, the course concentrates on the writers of the "Harlem Renaissance" and follows the development of African-American writing in poetry, fiction and drama to the present day. Representative authors are Douglass, Langston Hughes, Countee Cullen, Zora Neale Hurston, Richard Wright, Gloria Naylor, Toni Morrison, Connie Porter and August Wilson.

237, 238. Survey of American Literature.

A survey of major and minor works and writers that have shaped the American literary tradition from 1620 to the present, with

attention to historical and social backgrounds. English 237 concentrates on writers from the colonial period to 1900, including Taylor, Edwards, Bradstreet, Franklin, Emerson, Thoreau, Hawthorne, Poe, Melville, Whitman, Dickinson, Twain and James. English 238 covers the literature of the 20th century, including works by Dreiser, Wharton, Cather, Frost, Eliot, Stevens, Hemingway, Fitzgerald, Faulkner, O'Neill, Wright and Flannery O'Connor.

239. Introduction to Canadian Literature.

The background and development of Canadian literature in English. Though beginning with a survey of late 19th and early 20th-century writing, the course emphasizes post-1920 Canadian literature, especially that written since 1940. *Also offered through Canadian Studies.*

241. Techniques of Fiction.

An introductory study of basic technical problems and formal concepts of fiction writing. The emphasis is on the writing of fiction under individual guidance and criticism, although students also read and discuss the fiction of accomplished writers to see how they define and master their craft.

242. Techniques of Poetry.

An introductory study of prosody and poetics. Class attention is divided between student writing, theory and published models. Weekly writing assignments address a variety of technical issues connected with both traditional and experimental verse, while reading assignments provide examples to follow or possibilities for further study. Matters of voice, affect, intuition, chance and imagination are given as much attention as those analytic skills necessary for clear communication. All students are required to share their oral and written work for group discussion and critique.

243. Creative Non-Fiction Writing.

An introductory study of basic technical problems and formal concepts of the literary essay. Students read and write essays on various topics, including travel, personal experience, landscape, natural science and politics. Weekly written exercises and student essays are read aloud and discussed in class. *Also offered through Outdoor Studies.*

244. Techniques of Screenwriting.

An introductory study of basic technical problems and formal concepts of screenwriting. The study of produced screenplays and formal film technique, along with writing scene exercises, builds toward the construction of a short (50-minute) script. *Also offered as Speech and Theatre 244.*

255. African-American Drama.

African-American drama is a tradition that has unique themes and forms with sources in African ritual, language; gesture and folklore; the Southern Baptist Church; the Blues; and jazz. Through this course, students will examine plays, read essays, view videos and listen to music to discover the qualities that make this drama a vital resource of African-American culture and an important social and political voice. Playwrights include Amiri Baraka, Adrienne Kennedy, George C. Wolfe, Alice Childress, Ntozake Shange, Ed Bullins and August Wilson. *Also offered as Speech and Theatre 255.*

263. Native American Fiction.

This course concentrates on Native American fiction in English, most of it produced in the 20th century. It suggests some of the subjects and themes common to Native American literature in general and examines some of the forms and techniques used to treat them. Writers represent a broad spectrum of Native American cultural groups and may include Louise Erdrich, Linda Hogan, John Joseph Mathews, N. Scott Momaday, Leslie Silko and James Welch. *Also offered through Native American Studies.*

270-280. Special Studies in Language and Literature.

The content of each course or section of the course is different and is announced in the *Class Schedule*. Open to all students.

290. Expository Writing.

A course for students who have successfully completed the First-Year Program and who want further work in writing and revising expository essays. Students write for a variety of audiences and in a variety of forms, everything from personal narratives to the academic essay. The course addresses both rhetorical and formal concerns: organization, voice, prose rhythm, clarity. Writers are regularly asked to discuss their work in peer workshops. Prerequisite: First-Year Program or equivalent.

295. Nature and Environmental Writing.

This is a course designed for students who want to explore the specific genre of nature writing—the intersection of self and the natural world. We will explore how this genre combines the observational, scientific “eye” with the personal, narrative “I” through readings in nonfiction anthologies, novels and/or memoirs. Students will also spend time writing their own essays on nature and the environment, which will reflect different objectives within the genre, such as the political essay, the literary field study and the personal essay. Students will write three essays and one revision in addition to keeping a “naturalist’s journal,” which will be due at the end of the semester. Our discussion of the reading will be interspersed with workshop sessions throughout the semester.

305. Writing and Writing Theory.

In this advanced workshop, students will write in a variety of forms, from creative non-fiction to the academic essay. As they reflect upon their own work and as they read the work of professional writers, students will examine all aspects of the craft of writing, from the composing process to the elements of mature prose style. In addition, to develop further their own ideas about teaching and learning, students will read many of the major works in writing theory and pedagogy.

306. Advanced Screenwriting Workshop.

An extension and intensification of English 244. Students are expected to work independently on the preparation of two feature-length screenplays. Workshop format emphasizes the revision and editing process. Prerequisite: English 244. *Also offered as Speech and Theatre 306.*

307. The Short Story.

An exploration of the evolution of the modern short story with special emphasis on the American tradition from World War I to the present. Prerequisites: two lower-level English courses.

308. Advanced Creative Non-Fiction Writing.

The students’ own writing provides much of the material for this

course, although essays by contemporary writers are read and studied. Students are given opportunities to use non-fiction topics and forms of their own choice. Special attention is paid to problems of voice and narrative method, in particular to the role of narrators in mediating what is observed. The revision and editing process is also emphasized. Prerequisite: English 243. *Also offered through Outdoor Studies.*

309. Feature Writing.

Instruction in newspaper and magazine feature writing. In addition to writing shorter features of various types, students produce a representative profile, which involves locating an individual who represents a newsworthy group or issue, researching the issue, conducting several interviews with the subject, with experts in the field and with acquaintances of the subject and combining all this into a long feature. Prerequisite: English 201.

310. Advanced Fiction Writing.

Discussion of student-produced manuscripts in a workshop setting. Emphasis is on writing improvement through increasing awareness of the technical dynamics of the genre and through cultivating an understanding of contemporary idioms and the uses of the imagination. Prerequisite: English 241.

311. Advanced Poetry Workshop.

An extension and intensification of English 242. The class meets regularly in a workshop setting to critique student poems and assigned readings, to experiment with collaborative projects and to discuss issues of contemporary poetic theory. All students are required to complete a formal manuscript of finished poems and to read from their work in public. Prerequisite: English 242 or permission of the instructor.

312L. The London Stage.

Offered as part of St. Lawrence’s program in England. Students attend the same plays as the English 212L class but undertake an independent project instead of the regular class work. Prerequisites: two English courses, one of which must include the study of drama, and permission of the instructor.

315. Chaucer.

A study of Chaucer’s major works, *Troilus and Criseyde* and *The Canterbury Tales*. Prerequisites: two lower-level English courses or permission of the instructor.

316. English Literature of the Middle Ages.

Readings comprise representative texts from Old and Middle English, including *Beowulf*, *Sir Gawain and the Green Knight*, *Piers Plouman*, medieval drama and the *Morte Darthur*. Prerequisites: two lower-level English courses or permission of the instructor.

317. Renaissance Poetry.

A study of the romantic, spiritual and political poetry written by English men and women of the 16th and 17th centuries. Prerequisites: two lower-level English courses. *Also offered through European Studies.*

319, 320. Shakespeare.

An intensive study of Shakespeare’s plays. English 319 concentrates on the comedies and histories, 320 on the tragedies. Prerequisites: two lower-level English courses. *Also offered through European Studies.*

322. Milton.

An intensive study of Milton's development as poet and public figure, including all of his major poetry and representative samples of his political prose. Prerequisites: two lower-level English courses. *Also offered through European Studies.*

323. African Drama: Voices of Protest and Selfhood.

This course introduces students to the theatrical developments in South Africa, Nigeria and Ghana through the works of such internationally known playwrights as Athol Fugard, Wole Soyinka, Efua Sutherland and Mbongeni Ngema. The purpose is to foster awareness of the potency of drama for political protest and social change in post-colonial Africa. Issues about *apartheid*, as well as the challenge of technocracy and European values to traditional beliefs and customs, are the focus for study. Prerequisites: two lower-level English courses. *Also offered as Speech and Theatre 323.*

324. Elizabethan and Jacobean Drama.

A study of English popular drama, 1580 to 1640. Prerequisites: two lower-level English courses. *Also offered as Speech and Theatre 324 and through European Studies.*

325. 18th-Century English Literature.

A study of 18th-century literature and culture, including canonical figures such as Pope, Swift and Johnson, women writers and precursors of romanticism. Prerequisites: two lower-level English courses. *Also offered through European Studies.*

328. English Romanticism.

A study of English romantic literature in its historical and philosophical contexts. Authors normally studied include Blake, Wordsworth, Coleridge, Percy and Mary Shelley, Jane Austen, Byron and Keats. Prerequisites: two lower-level English courses. *Also offered through European Studies.*

329. Victorian Poetry.

A study of major Victorian poets such as Tennyson, both Brownings, Arnold, both Rossetti, the Brontes, Hopkins and Hardy. Attention is also paid to a number of lesser poets of both sexes. Prerequisites: two lower-level English courses. *Also offered through European Studies.*

331. American Romanticism: 1830-1860.

A study of representative American writers of the Romantic period, including Cooper, Hawthorne, Melville, Emerson, Thoreau, Fuller, Poe and Whitman. Prerequisites: two lower-level English courses.

332. American Realism: 1860-1900.

This course focuses on developments in American literature from the Civil War to the First World War, examining such movements as realism, local colorism and naturalism, and attending to contemporary social issues to which the literature responds: the aftermath of the Civil War and reconstruction, racism, the woman question, immigration, industrialization and urban poverty, rural life and westward expansion. Readings include works by standard realists like Mark Twain, W.D. Howells, Edith Wharton and Stephen Crane, and works by less well known writers like W.E.B. Dubois, Charles Chesnut, Rebecca Harding Davis, Abraham Cahan and Kate Chopin. Prerequisites: two lower-level English courses.

338. 20th-Century Avant-Garde.

Students are exposed to theoretical writings, dramatic texts and performances that reflect the continuing experimentation in the

theatre since the 1890s. Students examine artistic reactions to a post-Darwinian and post-Freudian worldview and are exposed to the various methods in which playwrights and theatre practitioners have grappled with finding new ways of articulating what it means to be human in an industrialized world. Prerequisites: Speech and Theatre 125 or 215, English 190 or permission of instructor. *Also offered as Speech and Theatre 338 and through European studies.*

339, 340. The English Novel.

A study of the English novel from its beginnings in the 18th century to 1900. English 339 follows the historical development of the novel to 1830, including works by Defoe, Fielding, Sterne, Scott and Austen; 340 includes works by Dickens, the Brontes, Thackeray, Gaskell, Eliot, Trollope and Hardy. Prerequisites: two lower-level English courses. *Also offered through European Studies.*

343. Victorian Literary History.

This course focuses on the response of writers in Victorian England to the spread of literacy and democratic values and the rise of a "mass" reading public. Representative Victorian bestsellers by authors such as Tennyson, Dickens, George Eliot, Mary Braddon and Bram Stoker are studied. Prerequisites: two lower-level English courses. *Also offered through European Studies.*

344. Ethnic American Women Writers.

This course focuses on the writings of women from four major American ethnic groups: African American, Native American, Asian American and Latin American. Works are examined as products of particular ethnic traditions as well as products of a common female American literary heritage. Writers may include Toni Morrison, Alice Walker, Gloria Naylor, Louise Erdrich, Leslie Silko, Amy Tan, Maxine Hong Kingston, Sandra Cisneros and Julia Alvarez. Prerequisites: two lower-level English courses. *Also offered through Cultural Encounters.*

346. American Literature and the Environment.

A study of the literary response to the taming of the American wilderness. The course focuses on the close association of nature and art in American literature, examining how American writers, in shaping story and poem, have tried to reconcile the processes and values associated with "wilderness" and "civilization." Some attention is given to the historical and cultural backgrounds of the wilderness theme. Writers such as Crèvecoeur, Jefferson, Cooper, Thoreau, Melville, Twain, Whitman, Jewett, Frost, Faulkner, Cather, Steinbeck, McPhee and Dillard are studied, but an effort is made to choose works not usually taught in the surveys of American literature. Prerequisites: two lower-level English courses or permission of the instructor. *Also offered as Environmental Studies 346 and through Outdoor Studies.*

349. Modern British and American Poetry.

A survey of modern poetries from the Anglo-American canon. Major authors include Thomas Hardy, A.E. Houseman, W.B. Yeats, Robert Frost, D.H. Lawrence, Hilda Doolittle (H.D.), Ezra Pound, T.S. Eliot, William Carlos Williams, Wallace Stevens, Robinson Jeffers, e.e. cummings, Marianne Moore, W.H. Auden, Philip Larkin, Robert Lowell, Gwendolyn Brooks, Dylan Thomas and Sylvia Plath. The general aim of the course is to strengthen our capacity to read carefully and experience more deeply the work of a wide variety of poets.

350. 20th-Century Realism.

After Ibsen, realistic drama continued to be written by other dramatists in continental Europe, Great Britain and the United States. In this course students observe how different playwrights used the form of realism: as a vehicle for social and political ideas, as an instrument for expressing "folk" consciousness and as the formal basis for experience conceived symbolically or lyrically. Plays are selected from the works of dramatists such as Lorca, O'Neill, Hellman, Williams, Gorky, Miller, Hansberry, Wilson, Synge, O'Casey, Durrenmatt, Osborne, Handke and Pinter. Prerequisites: two lower-level English courses. *Also offered as Speech and Theatre 350 and through European studies.*

352. Contemporary Literature and the Environment.

A study of the contemporary literary response to rising national interest in the natural world and rising awareness about the danger to natural resources. Although readings will be predominantly in prose (novels and essays), some poetry will be included. Among the questions the authors ask: As we approach the natural world, how can we move beyond metaphors of dominion? What are the biases of gender, geography and culture that we bring to our inquiry? What is the relationship between the human and the "natural"? What does it mean to fully invest ourselves in our local environment? *Also offered as Environmental Studies 352 and through Outdoor Studies.*

353. Modern British Fiction.

A consideration of the techniques, forms and themes of the major modern fiction writers, including Conrad, Lawrence, Joyce, Woolf, Forster and others writing between 1900 and 1930. Prerequisites: two lower-level English courses. *Also offered through European Studies.*

354. The Modern American Novel.

A study of modern American novelists from Dreiser, Cather and Lewis through Hemingway, Fitzgerald, Faulkner and important writers of the 1930s. Prerequisites: two lower-level English courses.

355. Contemporary British Novel.

A survey of post-World War II British fiction, including such novelists as Graham Greene, Doris Lessing, V.S. Naipaul, William Golding, Iris Murdoch, A.S. Byatt and John Fowles. Prerequisites: two lower-level English courses. *Also offered through European Studies.*

356. Contemporary American Novel.

An attempt to identify major figures since World War II and to illustrate the variety of forms that contemporary fiction has taken. Authors whose work has recently been studied in this course include Barthelme, Didion, Elkin, Ellison, Erdrich, Heller, McGuane, Morrison, Naylor, Pynchon and Updike. Prerequisites: two lower-level English courses.

357. Postcolonial Literature and Theory.

This course introduces a distinct way of organizing literary study, substituting for the study of national traditions (such as British, American or Canadian) the notion of postcoloniality as a global condition affecting not only literature but also categories we use to think about human experience: relations between colonizers and colonized and between culture and power; identity, authenticity and hybridity; roots, motherland, mother tongue; nationality. Readings will include contemporary literature produced in the Indian subcontinent, Australia, New Zealand and the Pacific, Africa, Canada and the Caribbean, as well as important theoretical texts about postcoloniality.

358. Canadian Fiction.

An examination of Canadian prose since 1920. Though concentrating on the novel, the course pays significant attention to the short story. Prerequisites: two lower-level English courses. *Also offered through Canadian Studies.*

359. American Women Writers.

A survey of the contributions of women writers to the development of the American literary tradition. Representative writers may include Stowe, Jewett, Freeman, Chopin, Cather, Wharton, Porter, Morrison, Godwin and Rich. Prerequisites: two lower-level English courses or permission of the instructor.

361. Literary Theory and Criticism.

A study of major theories of literary criticism usually with application to particular works of literature. Prerequisites: two lower-level English courses or permission of the instructor.

362. The English Language.

A study of the origins and development of the English language with primary emphasis upon general principles of grammar and meaning. Attention is given to the sounds and forms of Old English and Middle English, as well as to psycholinguistic and sociolinguistic questions about modern speech and writing. Prerequisites: two lower-level English courses or permission of the instructor.

368. Contemporary American Poetry.

A survey of the major "schools" of poets during the 1950s and 1960s. Emphasis will be given to the Beat poets (Kerouac, Ginsberg, Corso, Ferlinghetti, Di Prima, McClure); the Black Mountain poets (Olson, Creeley, Duncan, Dom, Baraka); the New York poets (O'Hara, Schuyler, Berrigan, Ashbery); and the Confessional poets (Lowell, Sexton, Berryman, Plath). While a great deal of attention will be given to primary texts, poetic theory and social history will also be examined. Prerequisites: two lower-level English courses.

389, 390. Projects for Juniors.

Student-initiated projects involving significant study and writing carried out through frequent conferences with a faculty sponsor. Prerequisites: junior standing and a 3.0 GPA in English. Proposals must be approved by the department projects committee in the preceding semester (by the Friday before pre-registration week).

409. Internships in Communications.

The department sponsors a limited number of closely supervised internships on campus. There are various prerequisites for these and an application process for enrollment. Information about internships is available in the English department office. This counts as a writing course.

411. Seminar in Advanced Fiction and Creative Non-Fiction Writing.

This course is for juniors and seniors who have completed either the sequence in English 241 and 310 (fiction writing) or English 243 and 308 (creative non-fiction writing), who have taken the introductory course in the alternative genre and who have defined extended writing projects for themselves. The class will consist partly of workshops in which students read and critique each other's work, but it will also have as a significant objective a critical examination of the differences and intersections between the literary genres of fiction and creative non-fiction. Writers who might appear on the syllabus include Truman Capote, Tobias

Wolff, Joan Didion, David Shields, Richard Rodriguez, Lorrie Moore, Richard Ford, Lucy Grealy, Paule Marshall, Raymond Carver, Linda Hogan and Frederick Exley. Prerequisites: those listed above, a 3.0 GPA in English and permission of the instructor.

450-469. Senior Seminar.

The topics vary but each seminar is intended to provide an opportunity for intensive literary study and the completion of a substantial critical or creative piece of writing. Normally taken in the senior year, the seminar is open to juniors who have completed most of the English major requirements. Also open to non-majors who have taken at least one 300- or 400-level course in English.

470-480. Special Studies in Language and Literature.

The content of each course or section of the course is different and is announced when the *Class Schedule* is published prior to registration. Prerequisites: two lower-level English courses.

489, 490. Projects for Seniors.

Student-initiated projects involving significant study and writing carried out through frequent conferences with a faculty sponsor. Prerequisites: senior standing and a 3.0 GPA in English. Proposals must be approved by the department projects committee in the preceding semester (proposals are due by the Friday before pre-registration week).

495. Honors Projects for Seniors.

This course is offered in the fall semester only and is for students working on an independent project to submit for departmental honors in the spring semester. Students meet regularly with their individual project advisor and as a group several times during the semester for guidance about conducting research, revising and preparing thesis manuscripts. Prerequisites: senior standing, a 3.5 GPA in English and approval by the departmental projects committee in the preceding semester (proposals are due by the Friday before pre-registration week).

Environmental Studies

Major and interdisciplinary majors offered

Professors Schwartz, Harris (chair); **Associate Professor** Johns; **Assistant Professors** Frederickson, Rivers, Welch (visiting). *Also Professors* Connett (chemistry), Erickson (geology), Gould (sociology), Greene (psychology), Jockel (Canadian Studies), Lammers (government), Weiner (English), Young (economics); **Associate Professors** Barthelme (anthropology), Bursnall (geology), Johnson (philosophy), Koons (physics), O'Donoghue (physics), Nyamweru (anthropology), Shradly (geology), Singer (English); **Assistant Professors** Barthelmess (biology), Gao (chemistry), McGee (biology, visiting), Mayer (biology), Kroll (economics), Ramirez-Sosa (biology), Robinson (geology).

The increase in human population coupled with increasing use and misuse of natural resources has led to degradation of the environment. An understanding of the interrelationships and complexities of both natural and social systems is essential if we are to preserve environmental quality.

The environmental studies department gives students a broad understanding of the complex nature of environmental problems. The aim is to provide specific knowledge of the relationship between traditional disciplines and environmental studies. The program also hopes to foster an integrated and coherent approach for environmental problem solving. To meet such objectives, the curriculum includes courses listed with other departments of the University as well as in particular areas of environmental studies. Many courses focus on study of rural issues, both inside and outside the classroom, to make maximum use of the University's location.

To have environmental studies as a major, a student may choose environmental studies as a single major or as an interdisciplinary major (see below) or use environmental studies as one field in a multifield major (see Curriculum, Multi-field Program).

Single Major

The department has created a solo major (B.A.) for students who wish to concentrate their efforts in environmental studies. This major is tailored to individual interests and emphasizes depth in a selected sub-area, as well as the integrative, interdisciplinary approaches of environmental studies.

Requirements for Single Major

Introduction to Environmental Studies.	1 unit
Policy/Pollution courses (PP)	3 units
Natural Science course	1 unit
(from dual-listed options)	
Social Science/Humanities course	1 unit
(from dual-listed options)	
Foundation of Environmental Thought.	1 unit
Electives	2 units
(from ENVS and dual-listed courses)	
Senior Year Experience	<u>1 unit</u>
(ENVS 351, 461, 404 or 490)	
Total	10 units

Interdisciplinary Majors

Environmental studies, in conjunction with other departments, has created ten interdisciplinary majors for students to integrate substantial efforts in traditional disciplines with environmental studies. These majors are designed for students who wish to acquire expertise in another department while still benefiting from the integrative approaches of environmental studies.

Progress in both halves of the interdisciplinary major should take place at about the same pace. Students enroll in Environmental Studies 101 in their first or second year and 335 in their sixth or seventh semester. Students intending to pursue an interdisciplinary major in environmental studies must take 101 by the end of their fourth semester. A major in environmental studies cannot be declared later than the end of a student's fifth semester, or equivalent. In each interdisciplinary major, it is essential that the student work closely with advisors in both departments.

Interdisciplinary Major Core Courses

All interdisciplinary majors in environmental studies require the following courses:

Introduction to Environmental Studies.	1 unit
Policy/Pollution Courses (PP)	3 units
Foundation of Environmental Thought.	1 unit
Electives*	<u>2 units</u>
	7 units

**One elective should be a dual-listed natural science course for B.A. students or a social science or humanities course for B.S. students.*

Environmental Studies/Anthropology

Interdisciplinary Major Core (listed above) 7 units

Anthropology

101. Human Origins.	1 unit
102. Cultural Anthropology.	1 unit
205. Language and Human Experience.	1 unit
420. Views of Human Nature.	1 unit

And two dual-listed courses, such as:

210. Environmental Archaeology. <i>or</i>	
240. Environment and Resource Use in Kenya.	2 units
Electives*	<u>2 units</u>
	15 units

**Electives that are dual-listed should be taken under the Anthropology number. Electives must include one on a specific cultural or geographic area.*

Environmental Studies/Biology

Interdisciplinary Major Core (listed above) 7 units

Biology

101,102. General Biology.	2 units
221. General Ecology.	1 unit
Electives*	<u>5 units</u>
	15 units

**Electives that are dual-listed should be taken under the Biology number. Biology electives must include two 300- or 400-level courses. No more than one course designated as major credit restricted can be used as an elective under biology. Students anticipating graduate work in Biology should take Chemistry and Statistics.*

Environmental Studies/Chemistry

Interdisciplinary Major Core (listed above) 7 units

Chemistry

103,104. General Chemistry.	2 units
205. Quantitative Analysis.	1 unit
221,222. Organic Chemistry.	2 units
306. Environmental Chemistry.	1 unit
341. Physical Chemistry.	1 unit
351. Advanced Organic Laboratory. <i>or</i>	
352. Physical and Inorganic Chemistry.	<u>1 unit</u>
	15 units

Environmental Studies/Economics

Interdisciplinary Major Core (listed above) 7 units

Economics

100. Introduction to Economics.	1 unit
200. Quantitative Methods in Economics.	1 unit
251. Intermediate Microeconomic Theory.	1 unit
252. Intermediate Macroeconomic Theory.	1 unit
308. Environmental Economics. <i>or</i>	
384. Natural Resource Economics.	1 unit
Electives*	<u>3 units</u>

Economics electives must include at least two 300- or 400-level courses.

15 units

**Electives that are dual-listed should be taken under the Economics number.*

Environmental Studies/English

Interdisciplinary Major Core (listed above) 7 units
 English 8 units

- A. At least three and a maximum of five writing courses, two of which are in the sequence of journalism* or creative non-fiction+:
- 201. Introduction to Newswriting.*
 - 242. Techniques of Poetry.
 - 243. Creative Non-Fiction Writing.+
 - 290. Expository Writing.
 - 308. Advanced Creative Non-Fiction Writing+.
 - 309. Feature Writing*.
 - 311. Advanced Poetry Workshop.
- A relevant special topics course in writing or independent study in writing may count as one course.
- B. At least three and a maximum of five literature courses, which must include:
1. At least one course of the following 200-level survey courses:
 - 226. Survey of English Literature.
 - 237. Survey of American Literature.
 - 263. Native American Literature.
 2. At least one of the following 300-level literature courses:
 - 328. English Romanticism.
 - 331. American Romanticism: 1830-1860.
 Or a relevant special topics or independent study in literature.
 3. At least one dual-listed English/Environmental Sciences course:
 - 346. American Literature and the Environment.
 - 352. Contemporary Literature and the Environment.
- 15 units total

Environmental Studies/Geology

Interdisciplinary Major Core (listed above) 7 units

Geology

103. The Dynamic Earth.	1 unit
104. The Evolving Earth.	1 unit
110. Environmental Geology.	1 unit
211. Geomorphology.	1 unit
216. Sedimentology.	1 unit
Electives*	<u>3 units</u>
	15 units

*Electives that are dual-listed should be taken under the Geology number.

Environmental Studies/Government

Interdisciplinary Major Core (listed above) 7 units
 Government

103.*Introduction to American Politics.	1 unit
105.*Introduction to Comparative Politics.	1 unit
290. Research Seminar in Government.	1 unit
312. Environmental Law and Politics.	1 unit
Electives**	<u>4 units</u>
	15 units

*At least one of these courses must be taken as a writing-intensive course.

**Electives that are dual-listed should be taken under the Government number. Government electives must include one international course and one theory course.

Environmental Studies/Philosophy

Interdisciplinary Major Core (listed above) 7 units

Philosophy

110. Reasoning.	1 unit
203. Ethical Theory.	1 unit
204. Theories of Knowledge and Reality.	1 unit
206. Introduction to Political Theory.	1 unit
310. Philosophy of the Environment.	1 unit
Electives	<u>3 units</u>
	15 units

Environmental Studies/Psychology

Interdisciplinary Major Core (listed above) 7 units

Psychology

100. Introductory Psychology. <i>or</i>	
101. Introductory Psychology. (with lab)	1 unit
205. Research Methods in Psychology.	1 unit
318. Environmental Psychology.	1 unit
Electives*	<u>5 units</u>
	15 units

*Electives must include two courses from the biological/acquisition processes list, one from the developmental/social processes list, and two from the clinical and applied areas list (see the psychology section of this Catalog). Two electives must be taken for lab credit.

Environmental Studies/Sociology

Interdisciplinary Major Core (listed above) 7 units

Sociology

161. Social Problems and Policy.	1 unit
300. Qualitative Methods. <i>or</i>	
301. Quantitative Methods. <i>or</i>	
343. Comparative Historical Methods.	1 unit
303. Social Theory.	1 unit
465. Environmental Sociology.	1 unit
Two socio-environmental dynamics courses	2 units
Electives*	<u>2 units</u>
	15 units

*Electives that are dual-listed should be taken under the Sociology number.

Honors

Students enrolled in one of the environmental studies majors may pursue honors in that major. To qualify for graduation with honors, students must have a minimum grade point average of 3.5 in all courses of the major at the time of graduation. In addition, students must successfully complete an honors project supervised by at least one faculty advisor in the environmental studies core. Projects by interdisciplinary majors must also be supervised by one faculty advisor in the department. Juniors interested in the honors program should consult with the environmental studies faculty and enroll in Environmental Studies 490 (Senior Project) in the fall semester of their senior year. (See also Honors in the Curriculum section of this *Catalog*.)

Adirondack/Appalachia Summer Program

In cooperation with the sociology department, the environmental studies department offers a two-credit summer program in comparative regional issues. The program provides students with an opportunity to study and compare social and environmental problems in Appalachia and the North Country, particularly the Adirondack area, through extensive travel in both regions supplemented by readings and discussion. Additional information may be obtained from the environmental studies office. This meets the pollution policy (PP) requirement for the environmental studies major. Not offered every year.

Courses

101. Introduction to Environmental Studies.

This one-semester course is an introduction to the basic concepts and interrelationships needed to understand the complexities of environmental problems. A survey of the characteristics of natural environments and human populations is followed by a study of environmental degradation and alternative solutions to environmental problems. The student is introduced to the roles of many disciplines (including both the natural and social sciences) in the study of environmental problems. The emphasis of the course is on interdisciplinary thinking.

106. Chemistry and the Environment.

A one-semester course designed for non-science majors and environmental studies majors. Basic chemical concepts are examined with special reference to the environment. Topics include

elements and compounds; atomic structure and the periodic table; chemical change; energy and entropy; oxidation and reduction; acidity; the ten questions a chemist needs to answer before fully characterizing a chemical reaction. These topics are related to pollution, waste management, recycling, energy sources and the limits to growth. Lecture plus one laboratory per week. *Also offered as Chemistry 106.*

107. Energy.

This course explores the nature of energy, its application in modern society and a variety of issues associated with that use. The course will cover the physical principles of energy in general, and of electrical energy, electromagnetic (optical) energy, nuclear energy and thermodynamics in particular. Applications and related issues will include the role of energy in society, fossil fuels, electric power plants, automobiles, global warming and the ozone layer and energy conservation; other topics may include nuclear, solar and other sources of energy. This course contains a lab component and makes extensive use of elementary algebra, particularly in the use of scientific notation. *Also offered as Physics 107.*

108. Economics for Environmentalists.

An introduction to the basic concepts, tools and theories of microeconomics that are applied to problems typically associated with the use of the environment. The course begins with basic microeconomic principles, advances to important economics theories that are commonly used to describe environmental resource allocation problems, and concludes with an examination of case studies such as air pollution and acid rain, destruction of rainforests, climate change, alternative sources of energy and waste disposal. This course does not count toward the major in environmental studies/economics. *Also offered as Economics 108.*

110. Environmental Geology.

This course attempts to relate geology, the science of the earth, to human activities and to express the importance of geology in environmental affairs. The introduction of important geologic concepts and fundamental principles necessary to unite the cultural and physical environments are discussed. Topics covered may include natural geologic hazards, interaction between people and the environment including human modification of nature, geologic resources and energy, and environmental management. Lab work will include work with topographic maps, world climate patterns, glaciation, groundwater, rocks, landscape evolution, petroleum, geology and urban planning and field trips. *Also offered as Geology 110.*

112. Global Climate.

Climate is perhaps the single most important and pervasive factor controlling global ecosystems and human well-being. This interdisciplinary course examines global climate from a historical perspective, beginning with the formation of the solar system and continuing through geologic time to the present. Topics covered include the development of the atmosphere; the workings of the global "heat engine" of atmosphere, oceans and continents; evidence for past climate change; causes of global climate change; the effects of climate change on human evolution; and the effects of human evolution on the global climate system. This is a team-taught studio lab course satisfying the natural science distribution requirement. *Also offered as Geology 112 and Physics 112.*

121. The Natural World.

A field biology-ecology course emphasizing the plants and animals of the Northeast. The course focuses on ecological factors and processes affecting individual organisms, communities and ecosystems. Students visit a variety of aquatic and terrestrial habitats to study local ecosystems and to learn the natural history of local plants and animals and how to identify them. Students also learn how to conduct a scientific study and to record observational data. *Also offered as Biology 121.*

201. Environmentalism and Sustainability. (PP)

This course explores the concepts, prospects and limitations of sustainability from an interdisciplinary perspective of environmental studies. Topics include global carrying capacity, societal reliance on ecosystems, ecological and technological sustainability, bio-centric and homocentric equity, community and grassroots initiatives in sustainability and assessment of environmental impacts. Emphasis is placed on discussions of assigned readings, collaborative group projects requiring an interdisciplinary approach, and field visits to local sites involving sustainability initiatives or projects. Students will research, design and implement small-scale sustainability projects on the department's Ecological Sustainability Landscape adjacent to campus. Prerequisite: Environmental Studies 101.

205. Quantitative Analysis. (Env.)

An introductory course dealing with the chemical, physical and logical principles underlying quantitative chemical analysis. Emphasis is placed on study of some of the methods and applications that have been found useful in the analysis of substances that affect the quality of the environment. (This version also satisfies the quantitative analysis requirement for the student seeking a major in chemistry.) Lectures plus one laboratory per week. Prerequisites: Environmental Studies 101 and Chemistry 104 or permission of instructor. *Also offered, with variations, as Chemistry 205.*

209. Vertebrate Natural History.

A study of the systematics, distribution and life history of the vertebrate groups. Field labs involve methods to capture, identify and study the local species of fish, amphibians, reptiles, birds and mammals. Other labs will use preserved material to teach morphology and systematics. Prerequisite: Environmental Studies 101 and Biology 101, 102 or permission of instructor. *Also offered as Biology 209.*

210. Environmental Archaeology.

Environmental archaeology is a relatively new field of study. Its major goal is a detailed understanding of the interactions between the biophysical environment and past (prehistoric and historic) human cultural systems. Students are first introduced to a number of methodological techniques that focus on the natural, chemical and physical sciences, such as studies of cave sediments and former beach terraces (geo-archaeology). Case studies illustrate each of the above examples. The course also examines and evaluates theoretical models that attempt to reconstruct aspects of prehistoric ecosystems. Such conceptual models are drawn primarily from African, European and North American prehistory. Prerequisite: Environmental Studies 101. *Also offered as Anthropology 210.*

211. Geomorphology.

Geomorphology, literally "earth-shape-study," is the study of the landscape, its evolution and the processes that sculpt it. The purpose of this course is to enhance the student's ability to read geologic information from the record preserved in the landscape. This is achieved through understanding the relationship between the form of the earth's surface and the processes that shape that form. Students combine quantitative description of the landscape with study of landscape-shaping processes into a comprehensive investigation of the dynamic landscape system. This investigation requires geological insight, application of basic physical and chemical principles and plain common sense in the study of hills, rivers, mountains and plains. Library, laboratory and field research methods are emphasized; a field trip is required. Prerequisite: Environmental Studies 101. *Also offered as Geology 211.*

213. Seeing History: Reading the Natural and Cultural Landscape. (PP)

How can we study history by looking at our surroundings? How can we interpret the past through what we see at present? Why does such an analysis help us understand contemporary environmental dilemmas? This field-oriented seminar will address these questions through a series of directed readings and experiential exercises. Students and faculty will construct the history of both natural sites and abandoned farms by identifying flora and fauna, as well as examining ecological relationships and agricultural artifacts; compose the history of cities by looking at urban design and patterns of development; determine how landscape painters reflect past and present on their canvases; and, finally, use these historical investigations to inform debates over species introduction, urban sprawl and the social construction of nature. Extended trips to museums, cities and natural areas will be taken throughout the semester. Prerequisite: Environmental Studies 101. *Also offered through Outdoor Studies.*

221. General Ecology.

A study of the factors influencing the abundance and distribution of species, including interactions between individuals and their physical/chemical environment, population dynamics and interactions with individuals of other species. Also covered: structure/function of communities and ecosystems and their responses to disturbance. Labs are field-oriented and emphasize characteristics of local communities or specific concepts such as estimation of population density. Two lectures, one discussion and one lab per week. Students without college-level biology should expect to do additional background reading. Prerequisite: Environmental Studies 101 and Biology 101 or permission of instructor. *Also offered as Biology 221 and through Outdoor Studies.*

231. Health Effects of Pollution. (PP)

An introduction to the scientific study of environmental agents and their human health effects. Emphasis is on the environmental causes of disease, including biological agents, hazardous waste, radiation, pesticides, drinking water contaminants, housing, occupational hazards and stress. Case studies illustrate how health effects are investigated by epidemiology and how theories of disease have evolved. Procedures for establishing regulatory policy and health standards are also discussed. Prerequisite: Environmental Studies 101.

240. Environment and Resource Use in Kenya.

The contrast in Kenya's physical and human environment is addressed—between highland and lowland, cropland and range land, domestic livestock and wildlife, modern and traditional ways of life and land-use systems. The impact of the colonial regime on land ownership and resource use is studied with reference to certain ethnic groups. Responses to changing economic and political conditions in the post-colonial era are also discussed. Prerequisite: Environmental Studies 101. *Also offered as Anthropology 240 and through African Studies.*

249. Contemporary Recreation Issues and Public Lands. (PP)

Why do people recreate outdoors in natural settings? What benefits and satisfactions do people derive from these outdoor recreational experiences, which may range from simple hiking to mountain biking to ATV's to rock climbing? When increasing numbers of people turn to public lands for recreational opportunities, what are the ecological impacts that result, and what qualities of the experiences are threatened? How can the natural resource base be protected while providing access and opportunities for a variety of recreational experiences? This course takes an interdisciplinary approach to the study of recreation, including specific emphasis on the following topics: impacts of recreation activities on natural resources; models and theories of studying recreational pursuits; psychological and social aspects of recreation activities and management; trends in recreation use and demand; and policies designed to lessen/mitigate impacts of use and to minimize possible conflicts among potentially competing recreational activities. Extensive focus will be placed on recreation areas near to campus in addition to the Adirondacks of Northern New York. Prerequisite: Environmental Studies 101.

251. Independent Projects in Environmental Studies.

For students desiring to do individual research in environmental studies. May be elected only after submission of a written proposal during the prior semester and approval by the core faculty of the environmental studies department. Prerequisites: Environmental Studies 101 and permission of instructor.

253. Race, Class and Environmental Justice.

This course focuses on the distributional dimensions of environmental degradation and environmental protection, both domestically and globally. The social processes that generate synergistic racism and class stratification, impacting the distribution of ecological cost and benefits, are explored. Substantive areas of focus include the siting of hazardous facilities in urban and rural minority communities, the socioecological conditions of migrant farm-workers, the extraction of resources from Native lands, the employment structure of hazardous industrial workplaces, population control initiatives directed at people of color, the siting of thermonuclear weapons testing, and the national and transnational export of toxic waste to the South. The course will also examine the origins and impacts of a distinct environmental justice movement that has emerged within minority and working-class communities and its relationships to civil rights, labor and mainstream environmental movements. Written and oral assignments will involve individual and collaborative quests for socially equitable solutions to environmental problems and ecologically sustainable solutions to racial and economic injustice. Prerequisite: Environ-

mental Studies 101. *Also offered as Sociology 253 and through Caribbean and Latin American Studies.*

255. Environmental Perceptions and Indigenous Knowledge.

People in different environments perceive their environment in different ways and have bodies of systematic knowledge relating to land, water, soil, plants and animals upon which they base their use of these resources. This course attempts to show how indigenous people attempt to understand the interrelationship of the different elements of their environments and have used them for sustainable livelihood. The impact of Western knowledge systems and commercial interests on indigenous communities is discussed, with reference to African and American case studies. Prerequisite: Environmental Studies 101. *Also offered as Anthropology 255 and through African Studies.*

261. Sustainable Agriculture Systems. (PP)

This course introduces students to the ecological, economic and social dimensions of agricultural systems. Beginning with an exploration of the basic tenets of sustainability, we examine the ways in which modern industrialized agriculture degrades the resource base on which it depends. Drawing on perspectives of agricultural scientists, ecologists, economists, sociologists and philosophers, we identify the links between agricultural policy, consumer choices and agricultural practice. We then critique a variety of models that might hold keys to a sustainable future for agriculture. As part of the course requirements, students will visit a variety of local farming operations and critically evaluate them for sustainable features. Prerequisite: Environmental Studies 101.

275. Energy and the Environment. (PP)

An overview of the history of energy production and consumption and associated environmental effects is followed by a look toward the next 20 years. An analysis of energy production and consumption serves as the background for an in-depth study of energy alternatives for the future. Each option is viewed in terms of its effect on the natural and social environment. Special emphasis is given to regional energy concerns, such as hydroelectric power, appropriate technology and alternative sources, including wood, solar and wind. A large segment of the course details strategies for reducing energy consumption and the associated benefits. Practical applications of alternative technologies and conservation will be incorporated utilizing the program's Ecological Sustainability Landscape and house as a laboratory. Prerequisite: Environmental Studies 101.

285. Canada-United States Environmental Issues. (PP)

Environmental problems, by their very nature, do not respect political boundaries, either within or between countries. This is of special concern to the United States and Canada, which share the world's longest international border. This course focuses on Canada-U.S. transboundary environmental problems. Topics considered include Great Lakes pollution, water quality and supply across the border, and transboundary air pollution including acid rain. In addition, attention is paid to the mechanisms that are responsible for managing the Canadian-American environmental relationship: the International Joint Commission, agencies in the two federal governments and state/provincial governments. Prerequisite: Environmental Studies 101 or Canadian Studies 101 or permission of instructor. *Also offered through Canadian Studies.*

301. Pollution of Aquatic Ecosystems. (PP)

The first part of the course is a review of the major physical, chemical and biological aspects of the ecology of lakes, rivers and estuaries. The remainder considers the consequences of human activities on aquatic ecosystems with particular attention to cultural eutrophication, organic pollutants, persistent toxic chemicals, acidification, oil and metal pollution, aquatic toxicology, global climate change, increased UV radiation, and the effects of water diversions and impoundments. In lab, we undertake field projects emphasizing water quality sampling and analysis, stream assessment using biotic indices, analysis of contaminants in sediments, modeling phosphorus in lakes and modeling bioaccumulation of persistent toxic pollutants. We take several field trips to examine regional issues. Prerequisite: Environmental Studies 101.

302. Issues in Air Pollution. (PP)

In this course we examine the sources, chemical processes, transport, and ecological and social impacts of major air pollutants. Our scale of study moves from global to regional to local problems. The issues considered include ecological and social impacts of global climate change, stratospheric ozone depletion, urban air quality, photochemical smog, acidification and local industrial sources. Emphasis is placed on consequences of industrialization and urbanization in both developed and developing countries. We analyze the equity issues, policy instruments and implementation strategies of agreements for protecting the air quality, climate, and the ozone shield. Prerequisite: Environmental Studies 101.

303. Solid Waste Management. (PP)

This course is a study of alternatives for handling, transporting and disposing of solid waste. It emphasizes environmental impacts and governmental policy of waste management. In addition to issues of waste disposal, the course uses a multidisciplinary approach in an analysis of waste reduction possibilities on both local and national levels. Specific topics include landfills, incineration, recycling, composting and source reduction. Several solid waste management facilities will be visited. Prerequisite: Environmental Studies 101.

306. Environmental Chemistry and Toxicology.

This course is designed for chemistry majors and students in environmental studies who have a strong background in chemistry. The course explores the sources and levels of chemical pollutants, the pathways along which they move through the environment and the toxicological effect they have on humans and other living things. Students are required to take part in a laboratory session every week. Prerequisites: Environmental Studies 101 and Chemistry 221. *Also offered as Chemistry 306.*

308. Environmental Economics.

An analysis of deficiencies in the market system and the existing property rights structure that generate pollution problems in industrial society. Alternative policy options are considered, including incentive-based approaches and cost-benefit analysis. Prerequisites: Environmental Studies 101 and Economics 251. *Also offered as Economics 308.*

310. Philosophy of the Environment.

A study of the philosophical questions raised by the current environmental movement and concern for the environment.

Should we do more to protect the natural environment, and if so, why? What are the deep causes of our environmental problems? Are they caused primarily by personal ethics or are social and economic institutions more important? How do ethics and institutions foster environmental destruction? If our current ways of living are not right, what changes in personal ethics and social institutions would enable us to live sustainably and with a proper respect for the natural world? Prerequisite: Environmental Studies 101. *Also offered as Philosophy 310 and through Outdoor Studies.*

312. Environmental Law and Politics.

This course deals with legal and political reactions to problems of environmental protection, including population, crowding, noise, air and water pollution, depletion of resources and land use. A survey of private law and of public law at federal, state and local levels, with stress on the representation of interest groups in legislative, administrative and judicial processes. Prerequisites: Environmental Studies 101 and Government 103. *Also offered as Government 312.*

318. Environmental Psychology.

This lecture-lab course studies the relationships between humans and physical environments—both natural and built—a new area of psychological investigation. Topics include environmental assessments, attitudes and behavior toward the environment, and the psychological effects of such environmental factors as crowding, architectural design, extreme environments, pollution and natural disasters. Prerequisites: Environmental Studies 101 and Psychology 100 or 101. *Also offered as Psychology 318 and through Outdoor Studies.*

321. Land-Use Planning. (PP)

An interdisciplinary approach to land-use planning that both satisfies human needs and protects the environment. Specific topics include human settlement patterns, urban development and sprawl, farmland preservation, habitat and groundwater protection and coastal zone management. Procedures of traditional land-use planning and neo-traditional design are emphasized, including zoning, site plan review, preferential tax policies, acquisition of easements and transfer of development rights. The course integrates theory and methods within an applied context. Prerequisite: Environmental Studies 101.

323. Fluvial Geology.

A lecture-discussion format is employed to examine the geologic significance of rivers and streams with emphasis on such physical parameters as drainage patterns, discharge characteristics, flow regime, channel shapes, flood plains, erosion and sedimentation, stream gradient and the significance of groundwater to surface runoff. The effects of streams on society and the effects of society on streams are discussed throughout the semester. Through consideration of such topics as wise use of flood plains, ethics of damming a river, impoundments and sedimentation rates, the value of channelization, the realities of irrigation and surface water as a renewable resource, students attempt to integrate purely scientific understanding of flowing water on the Earth with increased efforts to subjugate that resource to human control. Prerequisite: Environmental Studies 101. *Also offered as Geology 323.*

335. Foundation of Environmental Thought.

An examination of environmentalism formulated by naturalists and writers in North America. Emphasis is on a historical understanding of attitudes toward the natural world. The perspectives and conceptions of European settlers are compared to those of Native Americans. Format is primarily seminar. Discussion focuses on the writings of Thoreau, Muir, Leopold, Carson, Abbey and other naturalists of historical significance, as well as contemporary writers emphasizing indigenous knowledge and current issues. Problems of industrialization, the limits of growth, sustainability and public land programs are also reviewed. Prerequisite: Environmental Studies 101. *Also offered through Outdoor Studies.*

340. Conservation Biology.

This course examines the problem of maintaining biological diversity in a changing world. Emphasis is on the biological concepts involved in population biology, genetics and community ecology, and their use in conservation and management of biodiversity. Labs will be a mixture of local projects and trips to sites of interest for conservation. Prerequisite: Environmental Studies 101 and 221 or permission of instructor. *Also offered as Biology 340.*

346. American Literature and the Environment.

A study of the literary response to the taming of the American wilderness. The course focuses on the close association of nature and art in American literature, examining how American writers, in shaping story and poem, have tried to reconcile the processes and values associated with wilderness and civilization. Some attention is given to the historical and cultural backgrounds of the wilderness theme. Writers such as Crèvecoeur, Jefferson, Cooper, Thoreau, Melville, Twain, Whitman, Frost, Faulkner, Cather, Jewett, Steinbeck, McPhee and Dillard are studied, but an effort is made to choose works not usually taught in the surveys of American literature. Prerequisites: Environmental Studies 101, English 110 and one 200 level course; or two 200 level courses in English; or permission of instructor. *Also offered as English 346 and through Outdoor Studies.*

347, 348. Special Topics.

An in-depth consideration of some area of environmental studies not covered in regular course offerings. The specific topic normally is an advanced study of some interdisciplinary problem.

351. Internships in Environmental Studies.

Student-arranged study with an environmental organization. The internship comprises three parts: contact with daily operations; intensive work on one particular project; and extensive reading in appropriate areas. May be elected only after submission of a written proposal during the prior semester and approval by the core faculty of the environmental studies program. A letter of support must be received from the sponsoring organization. Cannot be counted toward environmental studies interdisciplinary majors. Prerequisite: Environmental Studies 101.

352. Contemporary Literature and the Environment.

A study of the contemporary literary response to rising national interest in the natural world and rising awareness about the danger to natural resources. Although readings will be predominantly in prose/novels and essays, some poetry will be included. Among the questions the authors ask: As we approach the natural

world, how can we move beyond metaphors of dominion? What are the biases of gender, geography and culture that we bring to our inquiry into the natural world? What is the relationship between the human and the natural? What does it mean to fully invest ourselves in our local environment? Prerequisite: Environmental Studies 101. *Also offered as English 352 and through Outdoor Studies.*

362. International Law.

A study of the development of the rules and principles of international law and of their current applications. Examination of the contributions of international organizations to the development of conventional international law. Preparation of topics for class presentation. Prerequisites: Environmental Studies 101 and Government 108 or permission of instructor. *Also offered as Government 362.*

363. Ecotourism: Panacea or Viable Sustainable Development? (PP)

Around the world, ecotourism has been heralded as a panacea: a way to fund conservation and scientific research, protect fragile and pristine ecosystems, benefit rural communities, promote development in poor countries, enhance ecological and cultural sensitivity, instill environmental awareness and a social conscience in the travel industry, satisfy and educate the discriminating tourist, and, some claim, build world peace. Although "green" travel is being aggressively marketed as a "win-win" solution for Third World countries, the environment, the tourist, and the travel industry, we are beginning to realize that ecotourism is a far more complex reality than what was originally envisioned in the 1970s when it was in its infancy. Through reading and discussion, students are expected to analyze the ecological, political and socio-cultural impacts of this fast-growing industry. The course will focus specifically on the frequently competing interests of environmental protection and sustainable development in ecologically sensitive areas such as Africa, Eurasia and Indonesia, and Latin and South America. Specific case studies will highlight the need for national as well as international policies that aim to preserve the ecological and cultural integrity of the peoples and places upon which ecotourism depends. Prerequisite: Environmental Studies 101 and 201 or permission of instructor.

380. Tropical Ecology.

A seminar based on current research in tropical biology. Emphasis is on the structure, function and biology of tropical organisms and ecosystems, especially as compared to temperate systems. Lectures will concentrate on the New World rainforests, with less coverage of Australasian and African systems. The course will address the role of mutualisms, sustainable development and other conservation measures and the role of indigenous cultures in tropical ecosystems. Prerequisites: Environmental Studies 101 and 221 or 340. *Also offered as Biology 380 and through Outdoor Studies.*

384. Natural Resource Economics.

This course complements Environmental Studies 308 (Environmental Economics). The main focus is on non-polluting human uses of the natural world, such as resource extraction, recreation and wilderness preservation. Standard economic approaches to problems of natural resources are presented and criticized from a variety of different perspectives to give students a deeper

appreciation of the role of economic analysis in coping with natural resource scarcity. Specific topics covered include economics and population growth, economics and environmental ethics, ecological economics and sustainability, biodiversity and water resources. Prerequisites: Environmental Studies 101 and Economics 251 or permission of instructor. *Also offered as Economics 384.*

404. The Green Backlash: Science and Politics of Environmental Opposition. (PP)

Over the past several decades, a broad-based environmental movement has mobilized strong and widespread public support for ecological protection. Successful incorporation of environmental concerns into the mainstream political agenda in industrialized countries and ecological resistance movements in developing countries have spurred an active opposition from diverse interests. Are environmentalists really scare-mongering, elitist, anti-progress, anti-human tree-huggers? Socialist doom-and-gloom-sayers who exaggerate and misinterpret scientific studies and threaten to abolish capitalism in order to serve self-interested purposes? In seminar format we will read and evaluate the works of selected environmental opponents and critics. We will analyze the origins, agenda, actions and interconnection of these critics, and assess strategies for environmentalists to use in response. Students will undertake an individual research project evaluating environmentalist and oppositional stances on selected controversial topics. Prerequisite: Junior or senior standing and permission of instructor.

461. Research Seminar.

Faculty-directed research designed for small groups of advanced students. The focus is on environmental problems of northern New York. Topics for the course are usually defined in response to needs identified by local communities. The course draws together the expertise of students from different majors. Basic concepts and methodologies of field research are applied in practice. Prerequisites: junior or senior standing and permission of instructor.

465. Environmental Sociology.

What is the "environment"? How do we know it's in trouble? Why should we protect it? What are we protecting it from? Who are we protecting it for? In this course, we will attempt to answer these questions by exploring society's relationship to the natural environment. We will examine both the social origins of the major environmental stresses facing us today and the political conflicts that these stresses have produced. First, we will focus on the role of society's utilization of natural resources in creating these crises, as well as the way societies identify these environmental stresses as social problems. In the second part of the course we will examine the variety of social responses to environmental problems. We'll explore the ways in which these responses lead to political conflicts, through examination of the various social actors involved in resource disputes. Finally, we will examine the outcomes of environmental conflicts at local, national and international levels and will seek to develop viable solutions to real socioenvironmental problems. Prerequisite: Environmental Studies 101. *Also offered as Sociology 465.*

490. Senior Project.

Special research designed by advanced students on an individual basis. The specific topic is normally a detailed study of some interdisciplinary problem. The project is usually undertaken in the fall semester of the senior year as an honors thesis. Requires submission of a written proposal in the junior year and approval by the core faculty of the environmental studies program. Prerequisites: senior standing and permission of instructor.

European Studies

Minor offered

Advisory Board: Associate Professors

DeGroat (history), O'Neil (coordinator, sociology); **Assistant Professors** Church (history), Jenkins (economics), Kroll (economics), Llorente (modern languages and literature), Schonberg (government).

European studies integrates course work from several fields into an interdisciplinary program of study. The minor allows students to engage in a critical examination of European society and the cultural, economic and political issues of historical and contemporary interest. The program offers a context for those who wish to understand the relationship of Europe to the rest of the world. Many fields, from education and the arts to government, business and scientific research, have increasing interactions with the European communities. The minor in European studies thus contributes to the preparation for a career in a variety of fields.

Study Abroad

Participation in study abroad programs in Spain, London, France, Austria, Denmark and Italy provides an excellent opportunity to design a minor that combines on-campus courses with courses taken abroad, grant-funded research projects undertaken abroad and immersion in a European culture. Many of the courses offered on these study abroad programs can be applied to the minor as electives; in some instances they may meet the introduction to European studies requirement. Research undertaken abroad can form the basis of the capstone requirement. Students should consult with the coordinator about a European studies minor that incorporates study abroad.

Global Studies

Students interested in pursuing a global studies major can include courses cross-listed with European studies to meet one of the area studies requirements.

Minor Requirements

I. Introduction to European Studies.

These courses introduce students to major issues involved in the study of Europe. This requirement is currently fulfilled by History 101 (The Rise of Europe), 205 (19th-Century Europe), 206 (20th-Century Europe) and 254 (The Rise of the New Europe). Other courses are forthcoming. Some courses offered in the European study abroad programs noted above meet this requirement. See the coordinator for more information.

II. Four Elective Courses.

Any course cross-listed with the program meets this requirement. Most courses from international programs are included. To insure breadth, students may count no more than two courses from a single department or program for the minor. Occasionally special topics courses are offered in various departments. See the coordinator for details.

III. Capstone Requirement.

A major research project that draws on students' experiences across the curriculum and allows them to reflect on those experiences. If students have studied abroad, they are encouraged to include that experience in their research. An appropriate Level III Cultural Encounters course may be substituted. See the coordinator for details.

IV. Language Study.

Students (except non-native English speakers) must have at least one semester of European language study. This requirement may be filled in several ways, including but not limited to:

1. Completion of a one-semester language course at the appropriate level offered at St. Lawrence or another college or university.
2. Participation in a continental study abroad program.

The program coordinator is the advisor for the students in the minor.

Departmental Offerings

Economics

- 322. International Economics.
- 330. History of Economic Thought.

English

- 225, 226. Survey of British Literature.
- 319, 320. Shakespeare.
- 322. Milton.
- 324. Elizabethan and Jacobean Drama.
- 325. 18th-Century English Literature.
- 328. English Romanticism.
- 329. Victorian Poetry.
- 339, 340. The English Novel.
- 343. Victorian Literary History.
- 353. Modern British Fiction.
- 355. Contemporary British Novel.

Fine Arts

- 202. Art of the Italian Renaissance.
- 203. Art of the Northern Renaissance.
- 204. Baroque and Rococo Art.
- 206. Art of the Middle Ages.
- 351. European Art of the 19th Century.
- 352. History of Modern European Art.

Government

- 206. Introduction to Political Philosophy.*
 - 330. Politics and Government of Western Democracy.
 - 363. International Organization.
 - 344. Modern Political Thought.*
 - 374. Contemporary Political Theory.
- *Dual-listed with Philosophy.*

History

- 101. The Rise of Europe.
- 110. The Scientific Revolution.*
- 205. 19th-Century Europe.
- 206. 20th-Century Europe.
- 209. Medieval World.
- 210. Renaissance World.
- 211. Women in Modern Europe.
- 215. History of Imperial Russia.
- 216. History of Russia in the 20th Century.
- 240. Europe at War.
- 241. Britain to 1688.
- 242. Britain since 1688.
- 254. Rise of the New Europe.
- 267. The Holocaust.**
- 311. 19th- and 20th-Century Science.*
- 371. 18th-Century Europe and the French Revolution.

372. Modern France.
 471, 472. Seminar in European History.
**Dual-listed with Physics; **dual-listed with Religious Studies.*

Modern Languages and Literatures

French

- 215, 216. Introduction to French Culture.
 403. Modern Prose Fiction in France.
 404. French Film.
 413. The Theater of the Classical Age.
 417. 19th-Century French Novel.
 425, 426. Seminar.
 428. French Women Writers.

German

217. 20th-Century German Literature.

Spanish

213. Introduction to the Cultures of Spain.
 323. Introduction to Spanish Literature.

Literature in Translation

101. Introduction to Russian Literature.
 315. Dostoyevsky-Tolstoy.

Music

346. Mozart and the Classical Tradition.

Philosophy

101. Science: Questions, Methods, Reflections.
 204. Theories of Knowledge.
 327. Existential Philosophy.

Physics

110. The Scientific Revolution.*
 311. 19th- and 20th-Century Science.*
**Dual-listed with history.*

Religious Studies

231. Christian Religious Traditions.
 267. The Holocaust.*
**Dual-listed with history.*

Sociology

378. "Those Are Real Bullets, Aren't They?":
 Nationalism and Ideology, Identity and
 Community in "The Troubles" of Northern
 Ireland.

Speech and Theatre

324. Elizabethan and Jacobean Drama.*
 335. Modern Continental Drama.
 338. 20th-Century Avant-Garde.*
 350. 20th-Century Realism.*
**Dual-listed with English.*

Fine Arts

Major and minor offered

Professors Bailey (chair), Berard, Kahn, Lowe, Udechukwu; **Associate Professors** Limouze, Serio; **Assistant Professor** Basu.

The department of fine arts offers courses in the history of art and the studio practice of art and provides an education in the visual arts for both majors and non-majors. It also strives to clarify the relationship of the visual arts to other liberal arts disciplines, and to stress their importance as a humanizing force in both the past and present.

The fine arts department feels the above can best be accomplished by study in both the history and practice of art, and requires that majors involve themselves in both components of the department's offerings. The department offers courses to a large number of undergraduates each term. These courses are intended to satisfy the needs of both majors and non-majors. Fine Arts 116 and 117 (Survey of Art and Survey of Western Art) satisfy distribution in humanities; Fine Arts 121 (Introduction to Studio Art) satisfies distribution in liberal arts; Fine Arts 215 (West African Arts) satisfies distribution in non-Western.

As a complement to the fine arts program, the Richard F. Brush Art Gallery sponsors a program of thematic and contemporary exhibitions, including alternating faculty and alumni exhibitions and an annual student show. Students are often employed in the gallery program so they may develop a working knowledge of aspects of gallery management, including registration, installation, conservation and writing exhibition catalogs. Students are also employed as teaching assistants and in other areas supporting the department's programs.

Major Requirements

A major in fine arts includes class work in the history of art and in studio art. In addition to the general graduation requirements, a minimum of eight units is necessary for the major; the maximum number of units allowable is 14. This in-

cludes both transfer units and courses taken abroad. Transfer students are required to take at least four units of credit in the department. Two of these units must be in studio art and two must be in art history.

Majors are required to take Fine Arts 121 (Introduction to Studio Art) and Fine Arts 116 or 117 (Survey of Art I or II) as early as possible, and at least two additional art history units and two additional studio units. Further, it is suggested that majors take one unit in philosophy of art or a course in theory or an art seminar. Students interested in studio work should acquire more units in those areas; students interested in the history of art should acquire more units in art history. Students interested in attending graduate school in art history are strongly recommended to study at least one foreign language appropriate to their areas of interest.

A suggested program follows:

History of art: 3 to 11 units

Studio work: 3 to 11 units

Majors are expected to obtain a minimum grade point average of 2.0 in department courses, although a better-than-average grade level is recommended.

Minor Requirements

A minor in fine arts comprises a combination of the history of art and studio work. Minors are required to take Fine Arts 121 (Introduction to Studio Art) and either Fine Arts 116 or 117 (Survey of Art or Survey of Western Art). In addition, four upper-level courses, with diversity of selection, are required for the minor.

Certification to Teach Art

Students seeking initial certification as a K-12 art teacher in New York must major in fine arts, taking at least five studio art courses, and also complete the certification minor in education. Fine arts majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the same requirements for

the fine arts major and the pre-certification minor in education (or its equivalent) as undergraduates. Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Honorary Society

The fine arts honorary society offers membership to students who maintain a 3.0 overall average and four fine arts courses with a 3.5 average, or a 3.0 overall and six fine arts courses with a 3.25 average. Applications are solicited twice during the academic year and an induction ceremony takes place in the spring semester.

Honors

After declaring a major in fine arts, students are encouraged to consider participating in the department's honors program. Students should consult with the chair of the department early in their junior year to begin to formulate their honors program.

Student Art Union

The Student Art Union (SAU) is an intradepartmental organization that was developed to bring about greater communication among students working in the fine arts. Members include fine arts majors and all students who have an interest in the fine arts department at St. Lawrence. The SAU helps organize the annual student art show and plans various other activities throughout the year.

Courses

Art History

116. Survey of Art.

A basic course. The historical development of art forms from Paleolithic times to the late Middle Ages. Emphasis is placed upon the relationship between the formal aspects of art and the political and social history of a culture. Satisfies distribution requirement in humanities. *Also offered through European Studies.*

117. Survey of Western Art.

A basic course. The historical development of art forms from the Renaissance to the present. Emphasis is placed upon the relationship between the formal aspects of art and the political and social history of a culture. Satisfies distribution requirement in humanities. *Also offered through European Studies.*

202. Art of the Italian Renaissance.

A study of painting, sculpture and architecture of Italy from the late 13th to the late 16th centuries. Artists to be considered include Leonardo, Michelangelo, Raphael and Titian. Prerequisite: Fine Arts 116 or 117 or permission of instructor. Offered on rotation. *Also offered through European Studies.*

203. Art of the Northern Renaissance.

A study of painting and sculpture in northern and central Europe from the late 13th to the late 16th centuries. This course will focus on such artists as Jan van Eyck and Albrecht Durer, as well as such themes as the evolving representation of nature, witchcraft and other gendered imagery in art, and the early history of printmaking. Prerequisite: Fine Arts 116 or 117 or permission of instructor. Offered on rotation. *Also offered through European Studies.*

204. Baroque and Rococo Art.

A study of painting, sculpture and architecture in Europe during the 17th and 18th centuries. This course will explore such artists as Velazquez, Bernini, Artemisia Gentileschi and Rembrandt, evocative images of nature and mystical experience, and the Palace of Versailles. Prerequisite: Fine Arts 117 or permission of instructor. Offered on rotation. *Also offered through European Studies.*

206. Art of the Middle Ages.

A study of European art history from the collapse of the Roman Empire to the 14th century. Individual sessions explore the history of symbols, saints' cults, pilgrimages, monasticism and medieval cookery. Prerequisite: Fine Arts 116 or 117 or permission of instructor. Offered on rotation. *Also offered through European Studies.*

210. American Art.

A survey of American art from the 17th century to the eve of World War I. The emphasis is on painting, although other media are included. Field trips. Prerequisite: Fine Arts 117 or permission of instructor.

215. West African Arts.

This course deals, for the most part, with the traditional arts of West Africa. It explores the wide range of West African art forms, materials and functions as well as questions of production, ownership, utility, evaluation and change. Non-Western distribution credit.

216. Special Topics: Contemporary Nigerian Art.

This is a survey of developments in contemporary art in Nigeria during the colonial (ca. 1920 to 1960) and post-colonial (1960 to date) periods as well as such issues as multiculturalism, cultural nationalism and internationalism. There will be opportunity for hands-on exploration of bead painting, uli drawing and painting and wool yarn painting associated with artists of the Oshogbo and Nsukka groups.

220, 221. Special Topics in Art.

Topics relate to the history, practice or theory of art. Open to all students, but depending on the topic prerequisites may be required. Specific topics are announced in the *Class Schedule* each semester, when offered.

254. A History of Contemporary Art.

The aim of this course is to provide a historical basis for an understanding of the current ideologies of art. Beginning with the

emergence of an avant-garde in the United States in the 1940s, the course investigates how artists and their publics attempted to redefine the role of art in the West. Prerequisite: Fine Arts 117.

316. Art Historical Methods and Criticism.

This course surveys the methodological scope of the academic discipline of art history. Lectures, selected readings and class discussions examine established approaches in the field of art history in Western culture. Students are asked to apply various perspectives to a focused research problem having to do with a specific work of art, an artistic career or a historical period. Recommended for fine arts majors, especially those with an art history emphasis. Prerequisites: Fine Arts 116 or 117 and one 200-level art history course.

330. The Museum as Cultural Crossroads.

An exploration of the museum as a largely Western creation and as a lens through which the Western world views other cultures. Class sessions focus on the history of collecting, the origins of great Western museums, the transport of cultural properties in the era of colonialism and the role of museums in communicating cultural difference. Offered on rotation. *Also offered through Cultural Encounters.*

351. European Art of the 19th Century.

A survey of painting, sculpture and architecture of the 19th century in continental Europe and England. Field trips. Prerequisite: Fine Arts 117 or permission of instructor. *Also offered through European Studies.*

352. History of Modern European Art.

A critical historical investigation of art production in western Europe from 1850 to 1945. Special emphasis is given to these issues: the strategy and tactics of the avant-garde, the revolutionary potential of art, the public reception of modernist art, the politics of the art market, the problem of abstraction and issues of gender. Prerequisite: Fine Arts 117. *Also offered through European Studies.*

389, 390. Special Projects in Art.

Individual study for fine arts majors or especially qualified students. Prerequisite: consent of the supervising professor and department chair. Hours to be arranged.

395. Senior Project: Honors in Fine Arts.

Details of the program are available from the department chair. Prerequisite: permission of instructor and department chair.

451, 452. Seminar in Art.

Topics relate to the history, practice and theory of art. Primarily for qualified majors; however, students who are interested but who have backgrounds in areas other than art are welcome. Seminar topics and prerequisites are announced in the *Class Schedule* each semester.

458. Women Artists and Contemporary Feminisms.

The presence of women and women's issues has had a significant historical impact in the arena of contemporary art, 1970 to present. This course focuses on the art of these women, their relationships with the feminist movement historically and theoretically and the development of feminist art history in this period. The course also provides background in the history of women, art and society. Prerequisites: Fine Arts 116 or 117 and one upper level course.

Studio Courses

All studio courses are one-unit courses and meet six hours per week.

121. Introduction to Studio Art.

An introductory course that raises fundamental questions about the nature of artistic activity. Students should expect to be engaged in both the process of making art and discussion related to the theoretical basis of such activity. In view of the nature of the course it cannot be considered a how-to-do-it course or one that is directed toward acquisition of technical skills. Open to all undergraduates; required of fine arts majors. Fine Arts 121 is prerequisite to all other studio courses, and it is suggested that this course be taken during the first year or sophomore year. Satisfies distribution requirement in liberal arts.

220, 221. Special Topics in Art.

Topics relate to the history, practice or theory of art. Open to all students, but depending on the topics, prerequisites may be required. Specific topics are announced in the *Class Schedule* each semester when offered.

229, 230. Painting.

An introductory course in painting. Prerequisite: Fine Arts 121 or permission of instructor. Registration limited.

231. Drawing I.

This introductory course will emphasize developing drawing skills through academic exercises. Various media are used. Prerequisite: Fine Arts 121 or permission of instructor. Registration limited.

232. Drawing II.

This course will continue to emphasize developing drawing skills but will focus more on issues and ideas of expression. Various media are used. Prerequisite: Fine Arts 121 and 231 or permission of instructor. Registration limited.

239. Sculpture I.

An introduction to sculpture. Materials used include clay, plaster and metal. Prerequisite: Fine Arts 121 or permission of instructor. Registration limited.

240. Sculpture II.

A continuation of Fine Arts 239, dealing with basic concepts of sculpture. Prerequisite: Fine Arts 239 or permission of instructor.

241. Printmaking I.

An introduction to lithography and intaglio printmaking. This course will involve drawing, processing, proofing and editioning prints. Students will also be exposed to historical and contemporary ideas and images related to making prints. Prerequisite: Fine Arts 121 or permission of instructor. Registration limited.

249. Ceramics I.

The study of clays and glazes and their use in pottery and sculpture. Throwing on the potter's wheel and the sculptural aspects of clay work are both required study. Prerequisite: Fine Arts 121 or permission of instructor. Registration limited.

250. Ceramics II.

A continuation of Fine Arts 249. Continued work with the potter's wheel and sculptural methods. Prerequisite: Fine Arts 249 or permission of instructor.

259, 260. Photography I and II.

Photography and its use as a medium of documentary and creative expression. The use of cameras; developing, printing; design and composition in photography; and other aspects of photographic theory and history. Students are expected to provide their own SLR camera. Prerequisite: Fine Arts 121 or permission of instructor.

329, 330. Advanced Painting I and II.

Advanced work in painting. Prerequisites: Fine Arts 229, 230 and permission of instructor. Registration limited.

331, 332. Advanced Drawing I and II.

Advanced work in drawing. Prerequisites: Fine Arts 231, 232 and permission of instructor. Registration limited.

339, 340. Advanced Sculpture I and II.

Advanced work in sculpture. Prerequisites: Fine Arts 239, 240 and permission of instructor. Registration limited.

341. Advanced Printmaking I.

Students may elect to work in depth in one of three traditional areas of printmaking: relief, intaglio, and stone lithography, or they may elect to become involved in various expanded and experimental techniques such as monotypes or collotypes. Prerequisite: Fine Arts 241. Registration limited.

349, 350. Advanced Ceramics I and II.

Advanced work in ceramics. Prerequisites: Fine Arts 249, 250 and permission of instructor. Registration limited.

389, 390. Special Projects in Art I and II.

Individual study for fine arts majors or especially qualified students. Prerequisite: consent of the supervising professor and department chair. Hours to be arranged.

395. Senior Project. Honors in Fine Arts.

Details of the program are available from the department chair. Prerequisite: permission of instructor and department chair.

451, 452. Seminar in Art I and II.

Topics relate to the history, practice and theory of art. Primarily for qualified majors; however, students who are interested but have backgrounds in areas other than art are welcome. Seminar topics are announced in the *Class Schedule* each semester.

Gender Studies

Minor offered

Steering Committee: Associate Professors DeGroat (coordinator; history), Lehr (government); **Assistant Professors** Egan (sociology), Llorente (modern languages and literatures), Morton (gender studies), Poethig (global studies).

Masculinity and femininity vary as a result of cultural, historical, political and institutional forces. The gender studies program helps students understand the multiple ways gender and gender relations are socially constructed, and how these understandings of gender in turn shape political institutions, law, the economy, education, work, art, music, literature, religion, sexuality and the family. As an interdisciplinary program that encourages students to explore gender from multiple perspectives, gender studies can help students broaden their understanding of other disciplines while facilitating recognition of gender dynamics in students' lives. Each gender studies course is designed to do the following:

1. Acquaint students with the scholarly analysis of gender and gender relations.
2. Promote an understanding of the social construction of gender in society.
3. Help students become aware of the impact of gender in their own lives and in society.
4. Enable students to analyze gender relationships through the use of feminist theories and methodologies.
5. Encourage reassessment of the gendered social distribution of power.
6. Recognize how gender inequality is related to other social hierarchies such as race, ethnicity, class and sexuality.
7. Foster a classroom climate that encourages student participation and helps students to develop the tools with which to connect the content of the course to their own lives.

Minor Requirements

The minor in gender studies consists of six courses and completion of the research requirement:

103. Gender and Society.
 290. Gender and Feminist Theory.
 Electives*
 Research**

**Three gender studies or dual-listed courses, at least two of which are 300- or 400-level. No more than one of these courses may be from a single department or program. Elective courses are approved for cross-listing by the gender studies curriculum committee, and are listed in the Class Schedule with both gender studies and the relevant*

department or program (e.g., anthropology, Canadian studies, English, fine arts, global studies, government, history, modern languages and literatures, philosophy, psychology, religious studies, sociology, speech and theatre).

***Preparation of an independent research project or paper must be completed as part of either a 300- or 400-level cross-listed elective seminar or a 400-level gender studies independent study. Students must secure the consent of the instructor and the approval of the gender studies curriculum committee prior to undertaking independent study.*

Courses

103. Gender and Society.

This interdisciplinary course examines how being male or female is translated into the social relationships of gender. It explores the ways gender roles, identities and institutions are constructed in relation to race, ethnicity, class and sexuality.

290. Gender and Feminist Theory.

This course examines theoretical explanations of gender, gender difference and gender inequality in society. The course includes introductions to some of the questions that shape contemporary feminist theory, feminist writings in multiple disciplines and feminist movements inside and outside the academy. The course focuses on how an awareness of intersections of race, class, sexuality, gender and ethnicity is vital for disciplinary and interdisciplinary study in feminist theory. Theoretical works are drawn from the humanities, arts and literature and the social sciences. Prerequisite: Gender Studies 103.

301. Studies in Masculinities.

This course calls on students to investigate their own lives in relation to historically and locally dominant prescriptions of what men and women "should" be. Combining readings of "great books" with a wide range of material from the burgeoning field of critical studies of masculinity, the course also includes a field research methods component that enables students to design and carry out creative research projects into the local gender systems in which they attempt to forge their own identities.

315. Gender and Science.

This course is an upper-level seminar-style course on the relationships between gender issues and science. Many kinds of questions can be asked about gender and science: questions regarding the social context of science with respect to gender issues; questions regarding the historical development of science and how the changing roles of women in society have affected science; and questions regarding the epistemological and ethical implications of these changing relationships. Two of the most important ongoing issues raised by the study of gender and science are: If there has been gender bias in scientific practice, has this affected the content of scientific knowledge, and if so, in what ways? If there has been gender bias in the practice of science, are there important ethical problems resulting from this bias? By exploring these questions and issues, we will be able to consider how science might better be a method of understanding in a democratic society. Also offered as Philosophy 315 and Physics 315.

479,480. Internships.

Students are required to spend eight hours per week in an internship at an agency that deals with gender-related issues and problems, such as sexual identity, domestic violence, sexual assault, the feminization of poverty, conceptions of masculinity and femininity among students, etc. In addition to the field placement, students will reflect on their internship experiences in a journal that applies gender studies concepts to these experiences, attend bi-monthly service learning workshops with other campus interns and prepare a research paper related to the gender studies issues relevant to the internship. Prerequisite: Gender Studies 103 and permission of the instructor.

489,490. Independent Study.

Individual study of a topic approved by the gender studies advisory board. Independent study may be used to satisfy the sixth course research requirement. Prerequisite: Gender Studies 103 and permission of the instructor.

Because gender studies is interdisciplinary, the majority of its courses are taught in several academic departments. These courses are approved by the curriculum committee (see program faculty) and are listed in the *Class Schedule* with both gender studies and the relevant department(s). Since approximately 15 departmental courses count toward the minor, students are advised to consult each semester's *Class Schedule* and secure the listing of genders studies cross-listed elective courses from the program coordinator for complete course descriptions.

In addition to course work, the gender studies program sponsors a campus film and speaker series and student and faculty research colloquia with SUNY Potsdam and Clarkson University. Interested students are encouraged to join the gender studies programming committee by contacting the program coordinator. Gender studies also sponsors a yearly writing award, given in the spring to research or creative writing that explores gender issues.

Geology

Major and minor offered

Professor Erickson; Associate Professors Bursnall, (chair), Owen, Shradly.

Geology is the science that unites the other natural and physical sciences in the context of earth's processes and its history. It is the

discipline that provides context for the setting of life on this planet, establishes the framework for the structure of the globe, explores the earth for resources that have aided human survival and, through its study, provides a fundamental understanding of the nature of our environment.

Geological principles make abstract sciences relevant by identifying or predicting natural hazards such as volcanic eruptions, sea level change or earthquake activity, by defining and locating energy and mineral resources, by demonstrating the course and majesty of evolution and by offering humanity better, wiser ways to work with the earth's vital systems, such as the hydrologic cycle. It is both a physical and a historical science that offers humankind predictive insight into the consequences of its actions.

We welcome students of all interests and backgrounds to explore our courses. The geology faculty are dedicated to providing a thorough introduction to the principles of science, to geology and its subdisciplines and to demonstrating their relationships and significance to humanity. Geological science is presented in the context of the liberal arts, wherein the integration of knowledge is stressed, the intent being to encourage students to begin and maintain a life-long process of personal and professional growth. Field and laboratory work, discussion and feedback in the classroom, preparation of research papers and oral reports and completion of quizzes and exams are among the activities expected of students who enroll in geology courses. Please consult the bulletin board in Brown Hall for information on specific courses for each semester.

Advising

Each faculty member recognizes the need for close consultation about course scheduling, choice of advanced course options and curricula in allied disciplines, and each accepts responsibility for advising geology students. It is the responsibility of each student majoring in geology to make certain he or she meets regularly with the advisor. In cases where geology is a part of a student's interdisciplinary major, or when a multi-field major is being designed, thor-

ough discussion with the student's geology advisor is especially important.

Major Requirements

Core Courses

In addition to Geology 103 and 104, students entering the geology major take the following courses to meet minimum department requirements for graduation with the Bachelor of Science degree in geology:

Geology

- 203. Mineralogy.
- 206. Invertebrate Paleontology.
- 211. Geomorphology.
- 216. Sedimentology.
- 302. Igneous and Metamorphic Petrology. *or*
- 315. Sedimentary Petrology.
- 401. Structural Geology.
- 408. Stratigraphy.

None of these required core courses will be accepted toward the major if taken pass/fail. Normally, 200-level courses are appropriate for sophomores, 300-level for juniors and 400-level for seniors.

Students should consult the course descriptions in this *Catalog* for information on prerequisites and sequencing of both required and advanced courses.

Suggested Courses

An introduction to geology currently is available to all students through two courses, Geology 103 (The Dynamic Earth) and 104 (The Evolving Earth). Each course presents geology in the context of modern issues and applications that are understandable to students of all interests and backgrounds. First-year as well as upper-level students will find these courses enjoyable and practical.

Advanced courses in the major areas of a student's interests are suggested. These provide depth in particular subject areas and should be taken as part of a program that students have discussed with their advisors.

Directed studies options are available to junior and senior students on an arranged basis with geology faculty members. No more than

two directed studies courses may be counted toward the major (only one if Senior Thesis–Geology 489,490–is taken).

Participation in a geological field camp is recommended during the summer following the junior or senior year.

Students who anticipate graduate study or a professional career in geology should plan to take one year each of chemistry and calculus.

Certification to Teach Earth Science

Students seeking initial certification as a 7-12 earth science teacher must complete a major in geology and the certification minor in education. The following coursework must be completed as a part of, or in addition to, the major: Geology 110 (Environmental Geology), 112 (Global Climate) and 415 (Tectonics) and Physics 102 (Introduction to Astronomy). Geology majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the pre-certification minor in education (or its equivalent) as undergraduates and all of the earth science requirements listed above (or their equivalents). Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Honors and Senior Thesis

Senior thesis study is undertaken voluntarily by students who wish to conduct original research in a close working relationship with one or more geology faculty members. (See also Honors in the Curriculum section of this *Catalog*.) A 3.5 average upon completion of all courses in the major and the completed senior thesis chaired by a member of the geology faculty are both needed for completion of the honors degree. The senior thesis course (Geology 489,490) may be taken regardless of a student's average in the major if permission of a faculty member is obtained. Thesis work is expected to lead to a finished research project (thesis) for appropriate credit. It need not be undertaken only by honors

candidates; the department wishes to encourage its students to consider a senior thesis as part of a capstone experience to their undergraduate program in geology. Senior thesis work should be undertaken only after careful discussion with faculty advisors in the department. Guidelines for the thesis are available from the department chair.

Minor Requirements

Students with a general interest and who wish to have a basic understanding of the earth and its processes, or who have a strong interest in a particular aspect of geology or earth science teaching and want to learn more about the subject, may minor in geology. There are several areas of potential concentration within geology, and the geology minor is designed so that it may serve the needs of the widest range of students.

A minor in geology can expand a student's background in support of a major in an allied science, environmental studies or economics, or in a major supporting interest in archaeology or international studies.

The minor can be designed to reflect general geology, or the courses may be grouped to focus on the history of life, surficial geology, bedrock geology or aquatic studies. Combinations of the student's own choosing, in consultation with the faculty, are encouraged. Several electives are available as options. Geology 103 and 104 are required in all cases.

Each student who minors in geology must have a faculty advisor in the department and should participate in the extracurricular academic activities of the department.

Courses

103. The Dynamic Earth.

What is the earth made of? How does the earth change? What effect does a changing earth have on humankind? The course is an introduction to the study of the earth intended for students with little or no previous exposure to geology or other science. The course examines the materials from which the earth is made and the forces that govern their distribution; it discusses the ways that geologists study the earth and the historical development of their important ideas. It explores the formation, abundance and distribution of economically useful earth materials (oil, natural gas, coal, strategic metals, precious minerals, water resources). It examines natural hazards such as volcanoes, earthquakes, radia-

tion exposure, subsidence, floods, shoreline erosion. Laboratory work gives students hands-on experience with rocks, minerals and many kinds of maps. Field trips may be required.

104. The Evolving Earth.

The course introduces non-science and science students to the methods by which we can reconstruct past geological events that have shaped the modern earth. It addresses three fundamental questions: Where have modern ideas about the earth come from? How do geologists unravel the history of the earth? What has happened in the earth's history? To answer these questions, the course examines some of the fundamental controversies that have faced geology throughout its history as a science, reviews in detail the methods that geologists use to determine past events and examines evidence recorded in rocks and fossils during the past 4.6 billion years of the earth's history. Laboratory studies include the study of maps, cross-sections, fossils and computer simulations. A field trip may be required.

110. Environmental Geology.

This course attempts to relate geology, the science of the earth, to human activities and to express the importance of geology in environmental affairs. The introduction of important geologic concepts and fundamental principles necessary to unite the cultural and physical environments are discussed. Topics covered may include natural geologic hazards, interaction between people and the environment including human modification of nature, geologic resources and energy, and environmental management. Lab work will include work with topographic maps, world climate patterns, glaciation, groundwater, rocks, landscape evolution, petroleum, geology and urban planning and field trips. Permission of the instructor to take the course is required. *Also offered as Environmental Studies 110.*

112. Global Climate.

Climate is perhaps the single most important and pervasive factor controlling global ecosystems and human well-being. This interdisciplinary course examines global climate from a historical perspective, beginning with the formation of the solar system and continuing through geologic time to the present. Topics covered include the development of the atmosphere; the workings of the global "heat engine" of atmosphere, oceans and continents; evidence for past climate change; causes of global climate change; the effects of climate change on human evolution and the effects of human evolution on the global climate system. This is a team-taught studio lab course satisfying the natural science distribution requirement. *Also offered as Environmental Studies 112 and Physics 112.*

120,121. Roadsides and Rivercuts: North Country Landscapes Through Geological Field Trips. (Special Summer Program)

The purpose of this two-credit summer course is to enrich students' understanding and appreciation of the geological background of northern New York, from Lake Ontario to Lake Champlain, including the Adirondacks. Daily field trips visit various components of this landscape: land forms, rock outcrops, settlement (including industrial development and mines), energy supply systems, etc. Participants learn to collect, record and identify the minerals, rocks and glacial materials that form the basis of this environment and the processes that cause them. The University serves as a base from which the group leaves each morning, three days a week, returning to the campus in the

afternoon. No prior geological coursework is necessary. Because of the time commitment required by this course, students are not permitted to enroll in other courses in the same summer session. *Also offered through Outdoor Studies.*

203. Mineralogy.

An introduction to the nature of the crystalline state as displayed by the common rock-forming minerals through their physical and chemical properties. Topics include symmetry and its graphical representation; the relationship between crystal morphology to internal structure; hand-specimen description and recognition; mineral phase equilibria and mineral origins; economic uses; and an introduction to petrology and such analytical tools as the petrographic microscope and x-ray diffractometer.

206. Invertebrate Paleontology.

This course focuses on principles of invertebrate paleobiology, morphology and taxonomy as they are applied to the study of fossils. All macro-invertebrate groups having a significant fossil record are examined. Laboratory work centers on techniques employed in fossil preparation, on recognition of taxa from fossil material, and on the stratigraphic and evolutionary significance of invertebrate fossils. Oral and written presentations on paleontological issues are expected of each student as an introduction to the literature of the discipline. Participation in a field trip is expected.

207. Paleoecology.

This course provides a semester of lecture and laboratory study devoted to paleoecological interpretation of fossils and fossil assemblages and includes comparison with their modern ecological counterparts. Principles of autecologic and synecologic paleoecology are emphasized during a complete analysis of one or more fossil assemblages. Most emphasis is placed on level-bottom communities and on the techniques employed in their study with the intent of blending theory with application. Lucid thought, synthesis of ideas and entry to the paleontological literature are stressed.

210. Optical Crystallography and Mineralogy.

This course involves a study of the nature of light in its interaction with crystalline material. Specifically, it studies the optical characteristics and properties of minerals and how minerals may be identified using the petrographic microscope. Participants will gain experience in microscopic mineral identification and in the preparation of rock thin sections.

211. Geomorphology.

Geomorphology, literally "earth-shape-study," is the study of the landscape, its evolution and the processes that sculpt it. The purpose of this course is to enhance the student's ability to read geologic information from the record preserved in the landscape. This is achieved through understanding the relationship between the form of the earth's surface and the processes that shape that form. Students combine quantitative description of the landscape with study of landscape-shaping processes into a comprehensive investigation of the dynamic landscape system. This investigation requires geological insight, application of basic physical and chemical principles and plain common sense in the study of hills, rivers, mountains and plains. Library, laboratory and field research methods are emphasized; a field trip is required. *Also offered as Environmental Studies 211.*

216. Sedimentology.

Sedimentology is the study of the formation and interpretation of sedimentary rocks. Primary emphasis is placed on processes of physical and chemical sedimentation in the context of observable environments. The course covers weathering, erosion, transportation and deposition of a variety of sediments leading to production of sandstone, limestone, shale, evaporite, chert and volcanoclastic rocks. Laboratory work is centered on careful observation and accurate documentation of sediments and sedimentary rocks, followed by interpretation of their environments of deposition. Techniques of sieving, staining, making acetate peels and making petrographic thin sections are covered. Field trips required.

280,281. Directed Studies in Geology.

Semester-long studies in appropriate areas of the earth sciences may be designed in consultation with an individual instructor in the geology department. May use seminar format when appropriate. Permission of instructor and sophomore standing are required.

302. Igneous and Metamorphic Petrology.

Petrology is the study of the origin of rocks, based on detailed observation of rock characteristics (petrography) together with theoretical/experimental approaches. This course provides a review of the occurrence, characteristics and origins of the common igneous and metamorphic rocks. Specific areas of study include the origin and differentiation of primary magmas, specific magmatic evolution trends, common rock associations, metamorphic zones and facies, migmatites, the nature of the deep crust and use of experimentally derived phase diagrams in the understanding of igneous and metamorphic petrogenesis. The relationship of plate tectonics to the formation of these generally holocrystalline rocks is emphasized. Laboratory work includes an introduction to thin section petrography, in addition to hand specimen description and classification. Prerequisite: Geology 203 or permission of instructor.

314. Glacial and Quaternary Geology.

This seminar examines the history of at least two million years. During this period, extreme fluctuation in the climate caused great ice sheets to form and melt many times, working profound changes on the environment. The course examines the causes, mechanics and effects of glaciation in the context of long-term climatic and environmental change. Prerequisite: Geology 211 or permission of instructor.

315. Sedimentary Petrology.

This course entails the study of the composition and texture of sedimentary rocks, with particular emphasis on thin section petrography. The primary focus of the course is analysis of the mineral composition, texture and porosity of sedimentary rocks. In addition, chemical and physical weathering, erosion, deposition, compaction, lithification and diagenesis are discussed in detail. Laboratory work stresses thin section observation of sandstone and carbonate rocks, as well as making thin sections from hand specimens. Field trip(s) may be required.

317. Micropaleontology.

Micropaleontology is the branch of life and earth sciences that deals with fossil organisms too small to resolve in detail with the unaided eye. This course introduces students to the broad range of micropaleontological techniques and to the numerous groups

of fossils on which these are practiced. Microfossils range in origin throughout the kingdoms of biology but primarily record plant, animal and protist life forms. The course examines such diverse groups as diatoms, radiolaria, charaphytes, conodonts, scolecodonts, foraminiferids, sponge spicules, holothurian sclerites, otoliths, coccoliths and fossil spores and pollen. Both light and scanning electron microscopy are employed by students in the course. Taxonomy, morphology and biostratigraphy of each group are stressed.

323. Fluvial Geology.

A lecture-discussion format is employed to examine the geologic significance of rivers and streams with emphasis on such physical parameters as drainage patterns, discharge characteristics, flow regime, channel shapes, floodplains, erosion and sedimentation, stream gradient and the significance of ground water to surface runoff. The effects of streams on humans and the effects of humans on streams are discussed throughout the semester. Through consideration of such topics as wise use of floodplains, ethics of damming a river, impoundments and sedimentation rates, the value of channelization, the "realities" of irrigation and surface water as a renewable resource, the course attempts to integrate purely scientific understanding of flowing water on the earth with value issues raised by increased efforts to subjugate that resource to human control. Laboratories emphasize field studies and quantitative evaluation of fluvial systems. *Also offered as Environmental Studies 323.*

333. Field Methods in Geology.

As a course designed to provide students with hands-on training in the basic and specialized skills necessary to pursue geologic fieldwork, this course can enhance a six- to 10-week summer field camp experience. Through individual and group projects, students are instructed, as time allows, in observing, collecting and processing geological data and samples; using the Brunton compass; geologic traversing; using and interpreting topographic and geologic maps; the alidade and plane table; basic uses of aerial photographs in geological mapping; and fundamentals of drafting and geologic report writing. As much time as possible is spent in the field. Related excursions may be planned to visit noteworthy rock exposures, landforms, mineral-collecting sites, mines or quarries in the Adirondack lowlands, Adirondack Mountains and southern Ontario. Prerequisites: permission of instructor and successful completion of courses in physical and historical geology. Knowledge of minerals, rocks and fossils is extremely helpful but not necessary.

380,381. Directed Studies in Geology.

Semester-long studies in appropriate areas of the earth sciences may be designed in consultation with an individual instructor in the geology department. May use seminar format when appropriate. Permission of instructor and junior standing are required.

401. Structural Geology.

The deformation of rocks through brittle and ductile processes is the focus of structural geology. This course examines how forces such as those associated with plate tectonics and mountain-building are recorded in rocks on the regional, outcrop and microscopic scale. The genesis, recognition and classification of structures such as folds, faults, joints and microstructures as well as the mechanical behavior of rocks, and stress and strain are studied as important components in deciphering the tectonic and

deformational history of an area. Stereographic projection and three-dimensional visualization are among the skills taught. The laboratory emphasizes application of theory to field problems. Geological mapping techniques, such as use of the Brunton compass, traversing, methods of data collection, observation and interpretation are developed. The laboratory portion of the course culminates in production of a geological map and report on a local complexly deformed terrane. Prerequisite or corequisite: Geology 203 or permission of instructor. *Also offered through Outdoor Studies.*

408. Stratigraphy.

This course places dual emphasis on stratigraphic principles and practices. Major accent is given to stratigraphic nomenclature, interpretation of sedimentary facies and sequences, evaluation of geologic contacts and the use of stratigraphic indices. These concepts are applied through laboratory work to field descriptions of stratigraphic sections, correlation techniques in practice, production of derivative maps from surficial and subsurface data and the use of stratigraphy as a tool by the economic geologist. The laboratory attempts to employ modern computer graphics and plotting methods whenever possible. Prerequisite: senior standing.

412. Geologic Evolution of North America.

The geologic evolution of North America is discussed in the context of plate tectonic theory. Paleomagnetic evidence is used to determine the orientation of the North American continent through successive time periods. The distribution of land, shallow sea and ocean basin environments is discussed for each paleomagnetic reconstruction. The course is designed as a workshop in which students are responsible for collection and interpretation of published geologic information.

415. Tectonics.

A comprehensive overview of the theory of plate tectonics in a seminar format. The historical development of the theory is reviewed, considering in detail the contributions of continental drift, geosynclines, polar wandering, sea-floor spreading and geomagnetic reversals. Current interpretations of the plate tectonic theory are discussed in relation to sedimentation, geophysics and paleogeographic reconstructions. Extensive use of primary sources in geologic literature is stressed.

480,481. Directed Studies in Geology.

Semester-long studies in appropriate areas of the earth sciences may be designed in consultation with an individual instructor in the geology department. May use seminar format when appropriate. Permission of instructor and senior standing are required.

489,490. Senior Thesis.

The senior thesis is an extended application of a student's geological background toward research of an original nature. It involves posing questions, developing hypotheses, conducting field and/or laboratory work, applying scholarship and library research, interpreting results and compiling those results into a finished thesis for submission to the department. Completion of Senior Thesis may lead to graduation with honors (see Honors in the Curriculum section of this *Catalog*). Guidelines and deadlines for thesis preparation should be obtained from the department chair. Prerequisite: permission of instructor. Enrollment in Geology 489 or 490 carries with it participation in a senior seminar meeting regularly during one of the senior semesters.

Geology-Physics

Interdisciplinary major offered

Students with an interest in geophysics may prepare for graduate study in this field by choosing the interdisciplinary major in geology and physics. The program of such a major must include advanced work in both physics and geology and is arranged by meet the specific needs of the student.

Major Requirements

- Four units of geology; must include 203 and 401.
- Four units of physics; must include 307 and 333.
- Two additional units chosen from appropriate courses in geology or physics at the 200 level or above.
- A senior research project in some area of geophysics, with advisors from both geology and physics departments

Recommended Courses

Mathematics

205. Intermediate Calculus.

230. Differential Equations.

Advising is provided through both the geology and physics departments. Since this major is expected to serve students with a wide range of interests, anyone considering it is encouraged to consult with these departments about appropriate scheduling of courses, including interdepartmental offerings.

Students contemplating this major should also be aware of possibilities for advanced placement in chemistry, mathematics and physics courses that could provide added flexibility to their programs. For instance, students with good high school backgrounds in physics should register for Physics 151, 152 and not Physics 103, 104.

Global Studies

Major and minor offered

Associate Professor Thornton; **Assistant Professors** Collins, Poethig; **Advisory Board Professors** Alden (English), Bailey (English), Cornwell (philosophy), Gould (sociology), Pomponio (anthropology), Ramsay (government), Stoddard (chair; English), Thacker (Canadian studies); **Associate Professors** DeGroat (history), Farley (music), Fuoss (speech and theatre), Hill (speech and theatre), LeClerc (sociology), Nyamweru (anthropology); **Assistant Professor** Malaquias (government).

The word “globalization” is constantly invoked to capture new realities such as people in remote rural areas of the world who have Internet access but no electricity. It may also apply to cars purchased in the United States, assembled in Holland in a factory set up jointly by a European and a Japanese manufacturer, with components made in Korea and many other countries, by workers from Turkey. It is a buzzword in business schools and a curse word for protesters against the World Bank and the World Trade Organization. It evokes peoples who share a national identity but have no state and corporations whose profits exceed the gross domestic products of many states.

Global studies is an interdisciplinary major designed to prepare students with new analytical frameworks for understanding the phenomena that attract the label “globalization” and for evaluating critically both the phenomena and their popular representations. In the six core courses students will be introduced to key concepts and theories of global processes and cultural studies. These teach new models of knowledge that focus on the rapid circulation and movements of people, knowledge, cultural forms, commodities, environmental pollution, communications, finance and other aspects of twenty-first century life. Global studies takes as a central premise the idea that global realities cannot be captured by one discipline or even one division of knowledge; rather, they require new approaches to knowledge that cut across

fields like biology, economics, ethnic studies, literary theory and sociology. Students will learn to view states, cultures, communities, economies and/or ecologies as embedded in larger global structural, cultural and natural contexts.

The major is fundamentally comparative, asking students to choose two areas of the world and some comparative focus of particular interest. Working closely with an academic advisor, students will design their major around a problem or theme, which will be the basis for a major paper in the senior seminar. Most global studies majors will want to spend at least a semester abroad, gaining field experience in at least one of their areas of concentration. The courses taken abroad will count toward the relevant area of concentration and will allow students to do field research toward the senior project.

Major Requirements

Core Courses

- 101. Introduction to Global Studies I: Political Economy.
- 102. Introduction to Global Studies II: Intercultural Studies.
- 301. Theories of Global Political Economy.
- 302. Theories of Cultural Studies.
- Methods (Sociology 343)
- Senior Seminar
- Transnational/Comparative Courses

Students will be required to select two from a menu of courses that employ a comparative or transnational approach in their design. All approved cultural encounters courses as well as those listed below will count. Students may petition to the global studies advisory board to count other appropriate courses.

Anthropology

343. Famine.

Biology

380. Tropical Ecology.

Cultural Encounters

- 335. Comparative Studies of Race and Ethnicity.
- 412. Cross-Cultural Perspectives on Healing.

Environmental Studies

- 253A. Race, Class and Environmental Justice.
- 301. Air Pollution.
- 360. Ecotourism.

Music

240. Musics of the World.

Philosophy

- 103. Philosophy East and West: An Introduction
- 203. Ethical Theory.

Sociology

375A. Environmental Movements.

Electives

Three electives must be selected from each of two areas of study. The area studies that can be used to fulfill the major requirements are:

African Studies

Asian Studies

Canadian Studies

Caribbean and Latin American Studies

European Studies

Native American Studies

United States Studies*

**Until a United States Studies Program is created, the global studies advisory board will maintain this as an internal category, keeping a list of courses that can be used by students who wish to make the U.S. one of their areas of concentration.*

Language

Global studies majors will be expected to study a second language. Students should consult with their advisor or the chair of global studies on how to fulfill this requirement.

Minor Requirements

The global studies minor consists of five courses. Students must take GS101, 102, either 301 or 302, and two courses approved for the transnational/comparative electives in global studies (this includes all cultural encounters courses).

Honors

To receive honors in global studies, students must achieve a minimum GPA of 3.5 in the major and submit for evaluation a project of substantial length. Further details may be obtained in the department office.

Certification to Teach Social Studies

Students seeking initial certification as a 7-12 social studies teacher in New York can major in global studies; they must complete the United States studies option of the major as well as the certification minor in education. Under the U.S. studies option, the major integrates all required topics for certification in 7-12 social studies. Global studies majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the pre-certification minor in education (or its equivalent) as undergraduates. Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Courses

101. Introduction to Global Studies I: Political Economy.

This course introduces students to the reasons for the emergence of a global political economy. Students will examine the basic concepts and vocabulary in the political-economic analysis of globalization such as free trade, international division of labor, neo-liberalism, privatization, structural adjustment and sustainable development. The course will explore the consequences of changing patterns of transnational economic and governance structures for nation-states, ecosystems and people's lives. The repercussions of economic globalization on the international and intranational distribution of power will also be examined. Finally, the course will introduce students to the opposition movements that have formed to contest globalization, such as those emerging from labor movements, environmentalism and feminism.

102. Introduction to Global Studies II: Intercultural Studies.

This course will lead students from an examination of their own identities and social locations to an understanding of how those identities exist in a global matrix of cultural, economic and political relationships. Students will be introduced to various theoretical and political positions on identity, including essentialism, social construction, strategic essentialism, hybridity, and multiplicity. This will be done through film and fiction as well as theory with a focus on such differentiating categories of identity as gender, race, ethnicity, class, spirituality and sexuality. While much of the material will be drawn from the contemporary era, the historical context of European conquest and expansion and the Middle Passage will be used to frame a critical examination of the evolving ideas of "America" and the "West." *Also offered as Cultural Encounters 150.*

230. Topics in Comparative Nationalism.

In this course, students will critically explore some of the most

pressing global issues in the study of nationalism, both contemporary and in historical perspective. The course will strike a balance between "classical" theories of nationalism and emerging theoretical work from a variety of disciplinary and interdisciplinary perspectives. Students will consider a range of specific cases, and will also use comparative methods to draw out the common issues that unite these cases. Specific topics for the course will vary from one year to the next, but will include areas such as gender and nationalism; generation and nationalism; anticolonialism; and nationalism, violence and memory.

245. The Making and Unmaking of the Third World. The "third world" is a political construct posing as a geographical one (like North/South, West/non-West) that represents uneven global relations of power. This course will address the metageographical, political, economic and discursive strategies that have maintained global and social ordering from colonialism forward. It will address theories of power and resistance that propose to unmake it. The course is primarily focused on the Asia Pacific. *Also offered through Cultural Encounters.*

280. Culture and Ecology.

This course introduces the student to the study of human ecology from a global and intercultural perspective. The texts, lectures and films are designed to provide an overview and appreciation of the origins, development and variation of human ecological knowledge and practices around the world, including foraging, subsistence agriculture, pastoralism and intensive and industrial agriculture systems; an introduction to the major concepts and theories of human ecology; an understanding of the concept of Traditional Ecological Knowledge (TEK) and its relationship to western science especially in the areas of ecosystem conceptualization and modeling, adaptation and resource use and management; a means of evaluating the sustainability and potential applications of indigenous ecological knowledge and practices in contemporary society. *Also offered through Native American Studies and Anthropology.*

301. Theories of Global Political Economy.

This course explores the complex relationship between states and economies at the global level. Its primary purpose is to provide a critical understanding of the major theoretical and analytical issues that constitute the crucial challenge to the study of global political economy today. The course will address such questions as: How did the present global order emerge? What are its central features, and who benefits and loses from its operations? How have the global systems of production and finance affected individuals and communities across the world? The course will employ a case study approach to test and illustrate theories about the ways transnational political-economic forces affect local political economies. It will examine the most significant socioeconomic processes affecting states and markets in a globalized world, especially the processes of trade liberalization and trade blocs, democratization and the erosion of state powers, geopolitical security and insecurity, technological change and environmental change. This course will move beyond the traditional agenda of international political economy, namely trade and investment, to address a wide range of alternative theories, concepts and themes, including the origins, functions and impacts of transnational corporations, international financial institutions, regional and global trade organizations and non-governmental organizations involved in social movements.

302. Theories of Cultural Studies.

This course will introduce the growing field of cultural studies through an examination of its major theoretical paradigms, particularly as these bear on the question of unequal global power relations. Areas of theory to be explored may include Marxism, critical theory, post-structuralism, feminist theory and emerging work in postmodernism and post-colonial studies. Students will explore a range of strategies for "reading" cultural practices and texts not simply as reflections of reality, but as political interventions, expressions of desire, attempts to persuade and producers of power. Through a combination of theoretical criticism and analysis of specific materials, students will prepare to undertake independent research in global studies with an informed understanding of how cultural studies challenge and enrich traditional social science and humanities approaches.

330. Studies in National Identities.

This course is devoted to the critical analysis of particular nationalist movements and national identities throughout the world. In addition to relevant theoretical and conceptual work, students will read intensively in the history and contemporary dynamics of nationalism either in a given geographical context (e.g., Algeria, Israel/Palestine) or in a comparative context (e.g., the United States and South Africa). Key themes may include the construction of national histories; the role of anti-colonial movements and other forms of collective struggle in producing national identities; the relationship between cultural production and national consciousness; and the relationship between "official" and "popular" forms of nationalism.

331. The Sense of Place.

This course is an interdisciplinary study of place through the social sciences and humanities. Cultural studies of landscape and place incorporate methods, concepts, and perspectives from a number of academic fields. In this course, we will explore a number of these fruitful lines of research in order to achieve an appreciation of place as cultural construction and place-making as an individual and collective process; a grasp of the basic concepts, literature, and methodological and theoretical approaches relevant to the study of place; the skills and support necessary to carry out ethnographic and cultural studies on sense of place. *Also offered as Anthropology 331.*

335. Global Gender Violence.

Violence is a form of social control that relies on relations of domination. Violence against women has raised particular issues regarding the social, biological/sexual and psychic nature of sexual assault. Feminists offer differing analysis of the forms of violent and violating discipline that impinge on their political, work, sexual/reproductive and spiritual lives. Because this violating social control permeates private and public life, it has become a primary target for women's advocacy worldwide. This does not mean there is universal agreement on what constitutes a violation or that feminists agree on priorities for advocacy. This course will offer students various positions on violence and sexuality in their particular contexts. *Also offered through Cultural Encounters.*

340. Global News Analysis.

In this course, students will critically approach the phenomenon of globalization by examining some of the most pressing issues in the study of global culture and communication. The primary goal is to explore how identities are produced and transformed, and

how power is reconfigured and contested, in relation to changing political and economic structures. Using comparative analysis and a balance of "classical" and emerging theoretical work, students will consider a range of specific cases and draw out the common issues that unite these cases. Specific topics for the course will vary from one year to the next, but will include areas such as cultural imperialism; cultural constructions of international hierarchy; cultural politics and revolutionary struggle; foreign news and ideology; and global conspiracy theories.

Government

Major and minor offered

Professors Draper, Exoo, Hinchman, Kling (chair), Lammers, O'Shaughnessy, Ramsay; **Associate Professor** Lehr; **Assistant Professors** Malaquias, Schonberg.

The government department acquaints students with a broad range of political values, theories and institutions; leads students to examine critically their own political attitudes and beliefs; and engages students' active interest in public life.

The government curriculum features work in the four main subfields of the discipline: American politics, comparative politics, political theory and international politics. In recent years, the department has also developed special strengths in American judicial process, media politics, environmental politics, gender politics and broad coverage of Africa, Asia, Europe, Canada and Latin America.

Students may elect a combined major of government courses and any of the following areas: African studies, Asian studies, Canadian studies, environmental studies. Students may also choose to combine government courses with the following minor programs: African studies, Asian studies, Canadian studies, Caribbean and Latin American studies, European studies, gender studies. For further information on these options, see the sections on Combined Majors and Program Minors in this *Catalog*.

Government majors may also choose to participate in American University's semester program in Washington, with which St. Lawrence is affiliated, and/or St. Lawrence's programs in Austria, Canada, Costa Rica, Denmark, England,

France, Japan, Kenya or Spain. For further information on these and related off-campus programs, see *International and Intercultural Studies* in this *Catalog*.

The department tries to maintain close student-faculty relationships through independent study projects, an honors program and a student preceptor program. Student preceptors work directly with the faculty and with underclassmen in tutorial and seminar groups.

A major in government provides career opportunities in public service, law, teaching, business, journalism and many other fields. Students considering a government major are strongly advised to elect Government 103 and 105 in their first year. The department also offers a minor.

Major Requirements

Government majors must complete Government 103, 105, 290, one course in political theory, one course in international politics and four other courses. A major may elect no more than four out of the first nine courses in any given subfield of the discipline (U.S. government, comparative politics, international relations, political theory).

Government 103, 105, 290, one theory course and one international relations course must be taken in residence on the St. Lawrence campus. The above requirements can only be satisfied through regularly scheduled government courses. Government 290 should be taken in the sophomore or junior year. Students must also complete a departmental writing intensive course, from among the introductory courses (103, 105, 108 or 206). This should be taken prior to enrolling in 290, the research seminar, which is also a writing-intensive course. Students may count one internship or one independent study among the first nine courses for the major. No fewer than seven government courses must be taken on campus. The academic work of transfer students in political science is evaluated upon entry into the department for determination of credit. In no case may a transfer student majoring in government take fewer than five government courses at St. Lawrence.

Minor Requirements

Government minors must complete two lower-level courses in government (103, 105, 108, 206), a research seminar (290) and two upper-level courses in government (300 or 400 level). The department will credit one upper-level government course taken in a St. Lawrence-sponsored off-campus program; otherwise, all other courses must be taken on campus. Internships in government will not count as courses toward the minor.

Senior Thesis

The senior thesis in government offers the qualified student an opportunity for more intensive work in the field. Minimum criteria for admission to the program are a 3.2 average in government courses, a satisfactory overall academic record, completion of Government 290 with a grade of 3.0 or better and the presentation of an acceptable research proposal. Interested students are required to submit a research proposal to the department by the end of the spring semester of the junior year.

Departmental honors are awarded at graduation to majors who have achieved a minimum grade point average of 3.5 in government courses and who have also received an "honors" designation on the senior thesis. (See Honors in the Curriculum chapter of this *Catalog*.)

Certification to Teach Social Studies

Students seeking initial certification as a 7-12 social studies teacher in New York can major in government. In addition to completing the certification minor in education, students majoring in government must also take: one economics course (Economics 100—Introduction to Economics—is recommended if only one course is taken); History 101 (The Rise of Europe), 102 (The 20th-Century World), 103 (Development of the United States, 1607 to 1877) and 104 (Development of the United States, 1878 to Present); Cultural Encounters 150 (Introduction to Intercultural Studies); *and* at least *one* specified course in the major that illuminates U.S.

and /or world history and geography. Students are also encouraged to take courses in other social sciences and area studies to round out their preparation for teaching social studies.

Government majors intending to complete student teaching in the University's Post-Baccalaureate Teacher Certification Program after graduation must complete the pre-certification minor in education (or its equivalent) as undergraduates and all the social science requirements listed above (or their equivalents). Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Courses

Introductory

103. Introduction to American Politics.

Increasingly, Americans are cynical about politics. This course examines the problems that give rise to that skepticism, as well as what might be done about them. The course is an introduction to the major institutions and actors of the American political system, including the Constitution, parties, interest groups and the legislative, executive and judicial branches of government. Attention is also given to cultural, ideological and economic contexts and to the mechanisms and possibilities of political change.

105. Introduction to Comparative Politics.

Comparative politics analyzes how demands emerge, power is exercised and benefits are distributed in different countries. It uses both historical and contemporary evidence to examine how societies respond to these challenges in order to appreciate and learn from the differences among them. Developing societies, communist and formerly communist regimes, as well as industrialized democracies, are analyzed and compared as a basis for evaluation and judgment.

108. Introduction to International Politics.

An analysis of international relations as a political process with particular emphasis on patterns of conflict and cooperation. Major areas of study include theories concerning the nature of the international system, nationalism, balance of power, collective security, alliance systems, international law and organization, political economy, war, deterrence, arms control and disarmament, the emerging international order, human rights and the environment.

206. Introduction to Political Theory.

A study of the answers that philosophers from Plato to Nietzsche have given to the question, "How should political life be organized?" This question leads us to consider the related problems of justice, power, equality, freedom and human nature. The course also includes discussion of the strengths and weaknesses of liberal democracy. *Also offered as Philosophy 206 and through European Studies.*

American Politics

217. Politics and History of the American Workplace.

A multidisciplinary study of the social and political relationships affected by the development of technology and the evolution of work in America, from the colonial era to the post-World War II period. Topics include changes in the design of work and technology and their effects upon the family, sex roles, the community and community values; workplace democracy and recent experiments in increased worker participation; government policy and regulation of the workplace.

250. Cultural Encounters in the Americas: The U.S. and Puerto Rico.

An examination of popular music in the U.S. and Puerto Rico reveals the bitter conflicts and enormously successful syntheses that resulted from the clash of three cultures—Spain's, the rest of Western Europe's and West Africa's—in the Americas. As a part of this study, we will carefully consider the methodology that we use to analyze other cultures and historical periods. For example, how do we draw meaning from music that is not our own? How could we go about tracing aspects of other cultures in the music of the Americas? Is it possible, or desirable, to avoid predispositions as we attempt to understand the politics of another period or culture? We will focus upon the Reconstruction Period (ca. 1865) and the Great Depression (ca. 1929) in the U.S., and the past 40 years in Puerto Rico. A research project will require students to examine a culture through a study of its music, its economics and its political pressures. *Also offered as Music 250 and through Cultural Encounters.*

302. Law and the Courts in the United States.

An examination of legal and judicial institutions, federal and state. Prerequisite: Government 103. Juniors or seniors. Recommended as a preparation for Government 307.

303. Political Parties, Interest Groups and Voting Behavior.

Two mechanisms try to organize ordinary citizens in their approach to government so government may be responsive to people's needs. Those mechanisms are parties and interest groups. One of their aims has been to organize citizens into rational, effective voting blocs. This course looks at how parties and interest groups work and at whether or not they are fulfilling their purpose. Prerequisite: Government 103.

305. Urban Society and Politics.

This course provides an introduction to the study of urban politics. It examines theories of urbanism, the connections between urban society and politics and issues of race and class in the city. The course pays particular attention to the distinctive political consequences of urbanism, especially as they impact upon the nature and quality of urban life. The course also reviews how national policies and corporations affect the ability of urban decision-makers to govern in the midst of mounting problems and declining resources.

307. Constitutional Law of the United States.

An examination of the development of the U.S. Constitution through judicial and political processes. Prerequisites: Government 103 and junior or senior standing.

308. Public Policy and Administration.

An analysis of the distribution of political power within the policy-making process. Various complexes of power are surveyed and evaluated, including defense, housing, poverty and education. Prerequisite: Government 103.

309. Congress and the Lawmaking Process.

An institutional and behavioral examination of the legislative process in Congress, with attention to current policy issues. Prerequisite: Government 103 and junior or senior standing.

310. The U.S. Presidency.

An examination of the functions of the presidency, with stress on the development of the executive branch in response to political needs and opportunities. Prerequisite: Government 103 and junior or senior standing.

312. Environmental Law and Politics.

This course deals with legal and governmental reactions to problems of environmental protection, including population, crowding, noise, air and water pollution, depletion of resources and land use. A survey of private law and public law at federal, state and local levels, with stress on the representation of interest groups in legislative, administrative and judicial processes. Prerequisite: Government 103 and junior or senior standing. *Also offered as Environmental Studies 312.*

314. Politics and the Media.

Most Americans learn most of what they know about politics from the media. But critics charge that the media's picture of politics is distorted. This course explains how the picture is distorted and why. In addition to news media, the course will look at the political and social messages of primetime television, Hollywood film and the advertising industry.

315. The Politics of Family in American Life.

What is the connection between family structures and the distribution of power in society? We will be examining this question through a study of the post-war American family and how it has changed over the past 50 years. To understand the ways family life both shapes and is shaped by broader power relations, we will draw upon fictional, analytic, autobiographical and cinematic texts. Our goal is to help students think systematically about the competing strands of meaning that inform American family life so that, by the end of the term, they will be in position to assess both the promises contemporary families offer and the challenges they face.

316. Ethics in Business and the Professions.

This seminar course will look at the relation between public policy and ethical dilemmas in the arenas of corporate life and professional service. The course asks students to examine the sorts of moral dilemmas they can expect to encounter in their chosen fields of work, will take a case-study approach to such topics as employee rights, information disclosure, affirmative action, sexual harassment and whistle blowing, and the roles that public policy should—or should not—play in relation to these issues.

Comparative Politics**228. Latin American Politics.**

This course begins with an examination of some of the historical and structural explanations for the political instability, militarism and democratic transitions of many of the Latin American nation-states. Within this context theories of modernization and depen-

dency are discussed, as well as differing strategies of economic development. The course focuses primarily on three nation-states—Mexico, a non-military authoritarian regime; Costa Rica, a democratic regime; and Nicaragua, a formerly "socialist" regime—to compare and contrast differing developmental strategies. Especially recommended for students who plan to participate in the off-campus program in Costa Rica. Prerequisites: Government 105 or permission of instructor.

230. African Politics.

This is an introductory survey of the evolution of power and authority in Africa. The course explores early history; colonialism and conquest; the rise of nationalism and the coming of independence; and the contemporary challenges of development. Especially recommended for students who plan to participate in the off-campus program in Kenya. Prerequisite: Government 105 or 108 or permission of the instructor.

322. Government and Politics in the People's Republic of China.

This course concentrates on reasons for revolutionary success and contemporary politics including ideology, policy making, elite conflicts and economic and social policies. The main focus is on the post-Mao Zedong era. Prerequisite: Government 105 or permission of instructor, junior or senior standing.

324. Democratic Transitions in Latin America.

The watchwords in the study of Latin America today are "political transitions" and "democratization." Across the continent the direct military rule of the 1970s and 1980s in nations such as Argentina, Brazil and Chile has dwindled to isolated cases. After more than a decade of civil war in Nicaragua and El Salvador, peace accords have been signed and elections have taken place. These events have sparked a new interest in the conditions that make democracy possible. With a focus on Latin America, this course will attempt to answer questions asked worldwide in the 1990s: Under what conditions does political transition occur and under what conditions does democracy endure? Prerequisite: Government 228 or Caribbean and Latin American Studies 104 or permission of instructor.

325. Government and Politics in Canada: An Introduction.

An introductory survey of the formal institutions and the processes of Canadian politics. Emphasis is on the federal government and on federal-provincial relations. Topics covered include the parliamentary process, parties and voting. *Also offered through Canadian Studies.*

327. Politics of Development and Underdevelopment.

This course focuses on three questions. First, why have a small number of Western countries and Japan emerged as wealthy, industrial societies, while the great majority of countries have not? The course examines a number of competing explanations. Second, how have some third world countries managed to achieve rapid economic development, while others have experienced stagnation or even negative growth in recent decades? The main focus here is a comparison between several East Asian and African countries. Third, how has the process of globalization affected countries' chances for development? Prerequisites: Government 105 or 108 and junior or senior standing.

330. Politics and Governments of Western Europe.

This course focuses on West European governments, political parties and social movements. It seeks to provide students with essential information about West European politics, as well as contemporary theories about advanced capitalist democracies. Comparisons between European and American politics are frequent so that students may better see the distinctiveness of each. Issues examined include: the European welfare state, the significance of the European Union, the changing contours of political conflict, and what the end of the Cold War has meant for Western Europe. Especially recommended for students who plan to participate in an off-campus program in Europe and for students returning from those programs. *Also offered through European Studies.*

338. Religion and Government.

A study of the effect of religious convictions on political behavior and concepts of civic and social duty. *Also offered as Religious Studies 338.*

339. Theology of Liberation: Analysis, Critique, Alternatives.

This course examines major expressions of the continued vitality of religious life in contemporary Latin America, such as the emergence over the last several decades of a theology of social change usually called "theology of liberation." We consider the rise of this theology and the reactions and criticisms it has provoked. We examine the growth of evangelicalism in Latin America as both alternative and consequence of liberation theology. Prerequisite: Religious Studies 100 or permission of instructor. *Also offered as Religious Studies 339.*

Political Theory

245. The Ancient Greeks: Politics, Poetry, Philosophy.

A discussion of brilliant, enduring works by Homer, Sophocles, Aeschylus, Euripides, Aristophanes, Thucydides and Plato. The course focuses on the growth of "enlightenment" in classical Athens, along with its attendant social, intellectual and political problems. Socrates, who grasped both the splendor and the perils of enlightenment, is the pivotal figure. *Also offered as Philosophy 245 and through European Studies.*

341. Politics Through Literature.

Discussion of works by Kafka, Conrad, Dostoevski, Brecht, Orwell, Camus, Pynchon, Kosinski and others, which bear on the problem of alienation from self, work, society and nature in the modern world. The course does not satisfy the department's major requirement in political theory. *Also offered as Philosophy 341.*

343. Ecology and Political Thought.

Environmentalism challenges the political, economic and philosophical foundations of modernity. This seminar examines the way this challenge has been issued by various wings of the movement, including animal liberationists, ecofeminists, neo-Malthusians, eco-guerrillas, deep ecologists and wilderness preservationists. The course does not satisfy the department's major requirement in political theory. Prerequisite: Government 206 or 344 or permission of instructor.

344. Modern Political Thought.

An examination of many important thinkers from the Renaissance to the present, but with a special emphasis on the 19th and 20th

centuries. Syllabus may include works by Voltaire, Tocqueville, Burke, Hegel, Mill, Freud, Fromm and Arendt. Whenever appropriate, students assess modern political developments in light of the assigned texts. Prerequisite: Government 206. *Also offered as Philosophy 344 and through European Studies.*

347. Marxist and Critical Theory.

A survey of the basic elements of Marxist political theory and of the major streams of contemporary thought that have emerged in response to it. Some of the theorists whose work we might examine include Gramsci, Horkheimer and Adorno, Marcuse, Habermas and Foucault. Feminist, African-American and Caribbean interpreters of Marx may also be studied.

349. American Political Thought: 18th and 19th Centuries.

An examination of the main currents of political thinking from the colonial period to the end of the 19th century. The course will begin with the Puritan Divines and continue through the start of the Progressive era. The thinkers considered might include Paine, the Federalists, Jefferson, Emerson, Thoreau, Frederick Douglass and Charlotte Perkins Gilman. We will also look at some feminist thinkers of the time, such as Margaret Fuller, the Grimke sisters, Elizabeth Cady Stanton and Charlotte Perkins Gilman.

350. American Political Thought: 20th Century.

An examination of the main currents of political thinking in the United States from the Progressive Era through the end of the 1960s. Thinkers considered include the Social Darwinists, Thorstein Veblen, W.E.B. DuBois, Jane Addams and John Dewey. We will also look at both the resurgence of conservative thought in the 1950s and some of the sociological critiques of the post-war era out of which the New Left, civil rights, Black Power, feminist and ecological movements grew.

351. African-American Political and Social Thought.

This course will offer a broad-based survey of African-American social and political thought. Its focus will be on the theme of duality: what it means for a culture and a people to be both integral to and excluded from the larger society of which they are a part. It will examine the variety of ways African-American thinkers have confronted this duality and how they have asserted the dignity and autonomy of their people in the context of a social order historically structured to deny them their full humanity. The course will include such African American thinkers and writers as David Walker, Frederick Douglass, Ida B. Wells, Booker T. Washington, W.E.B. DuBois, Richard Wright, James Baldwin, Audre Lorde and Toni Morrison.

International Politics

360. International Relations Theory.

An advanced offering on the theories of international relations. The course is a seminar with oral reports and research papers. The principal contending theories of international relations are investigated and critiqued. Although the nation-state system remains the primary focus of scholars of international relations, other major non-state actors of the international system are examined. Prerequisite: Government 108 or permission of instructor.

361. American Foreign Policy.

A study of the formulation, conduct and administration of United States foreign policy, particularly since 1945. The course will

examine the directions of U.S. foreign policy since 1989 and the goals and values that have guided foreign policy in the new environment. What directions should American policy take in contemporary foreign relations and what goals and values should guide that policy direction? Prerequisites: Government 108 or permission of instructor; junior or senior standing.

362. International Law.

A study of the development of the rules and principles of international law and of their current applications. Examination of the contributions of international organization to the development of conventional international law. Preparation of topics for class presentation. Prerequisite: Government 108 or permission of the instructor.

363. International Organization.

A survey of general and regional international organization, with emphasis upon the United Nations and its contribution to international peace and security. With the abeyance of the Cold War the United Nations has gained an enhanced role in the "new world order." The course examines this new security role and the contributions the United Nations makes to both political security and economic development. Prerequisite: Government 108 or permission of instructor.

364. Southern Africa in World Politics.

This course analyzes contemporary events in Southern Africa. Particular emphasis is placed on the relationships between regional and international politics. The initial part of the course focuses on the dynamics of political transitions in the, from colonialism and apartheid to majority rule. The second half looks at Southern Africa's position in the international division of labor and power. It also assesses regional approaches to attain political stability and sustain economic development through cooperation. Prerequisite: Government 105 or 108 or permission of instructor.

365. Inter-American Relations.

An introduction to political, social and economic relations between the United States and Latin America. The course focuses on the role of both government and private actors in the dynamics of U.S. policy toward Central and South America. General themes such as human rights, national security and economic aid are examined, along with contemporary issues such as the drug crisis and immigration. Prerequisite: Government 105 or 108 or permission of instructor.

372. Canada in World Affairs.

A broad survey of the Canadian experience in international politics. Ultimately it is an inquiry into the relationship among the international system, the elusive Canadian national interest and the limited set of foreign policy tools at the disposal of the Canadian government. Prerequisite: Government 108 or permission of instructor. *Also offered through Canadian Studies.*

Research Seminars and Special Studies

290. Research Seminars in Government.

The topics of these seminars vary depending on the interests of faculty and students. Recent topics have included international environmental law, state formation and development in Africa, the world military order, the political sociology of American workers, politics and the media, democracy and its discontents,

conflict resolution, working class politics, East and Southeast Asia, public opinion and political socialization, law, values and the environment and Latin American politics. The seminars are intended to acquaint students with research problems, strategies and techniques relevant to the subject matter at hand. Government 290 is required for all government majors and is taught each semester. Enrollment is limited to 15 students per section.

270, 370. Special Topics in American Politics.

Topics may include American political history, political economy, democracy and its discontents, the politics of labor and political action in modern America. *Also offered through Native American Studies.*

273, 373. Special Topics in Comparative Politics.

Topics may include the politics of race and ethnicity, Central American politics, African politics, Asian politics, Latin American politics and changing values in developing societies. *Also offered through Native American Studies.*

274, 374. Special Topics in Political Theory.

Topics may include democratic theory, politics of culture, women and politics, politics and psychology, Utopian and anti-Utopian political thought.

276, 376. Special Topics in International Politics.

Topics may include comparative foreign policy, the new economic order, political economy, disarmament and detente, imperialism, world federalism and European integration.

402. African Development.

This is an interdisciplinary research seminar crafted as a capstone for students completing the African studies minor. The seminar focuses on the critical theme of development and revolves around such issues as ecological adaptation and degradation, economic growth with equity, participatory politics and state legitimacy, cultural renaissance and resistance to foreign domination. It is in the comparative politics subfield. *Also offered through African Studies.*

479, 480. Internships.

Kwame Nkrumah once said, "Thought without practice is empty; practice without thought is blind." This course brings the two together. Students are required to spend at least eight hours per week in an internship at a local community service agency, dealing with such problems as poverty, crime, illiteracy, environmental degradation, domestic violence and so on. Students will reflect on the field experience by writing a research paper related to the internship, keeping a journal that reflects on the field experience in a scholarly way and attending a series of workshops designed to help students conceptualize their experiences. These workshops will meet approximately every other week. Prerequisites: Government 103 and 290, an overall GPA of 2.8 or better and permission of instructor.

489, 490. Independent Projects.

Individual study of a topic approved by the department under the direction of a faculty member. Prerequisites: Government 103, 290, an upper level course on a topic related to the project and an overall GPA of 2.8.

497, 498. Senior Thesis.

For description, see Honors above.

History

Major and minor offered

Professor Hunt; **Associate Professors** Csete, DeGroat, Lloyd (chair); **Assistant Professors** Church, Laningham (visiting), Regosin, Parmenter; **Instructor** Smith.

Why study history? The simplest and most straightforward answer is that history is interesting. It is the most comprehensive of the liberal arts, embracing, potentially at least, whatever men and women have done or endured. By liberating us from the confines of our own place and time, history makes life larger and richer.

As professional historians we naturally hope that students will come to share our enthusiasm and find in history a lasting source of pleasure and enrichment. History is worth studying for its own sake and for the improvement of the life of the mind. The study of history teaches you to think creatively, independently and with discipline.

History, therefore, is also an excellent preparation for many rewarding careers, as well as for post-graduate study. History students acquire analytic and expository skills; they learn to sift and organize information, to formulate persuasive arguments and to express them with force and clarity. These skills are useful in any career, and they are indispensable in such professions as law, business, government, journalism and education.

The history department at St. Lawrence offers a diverse selection of courses in African, African-American, Asian, European, North American and women's history, with additional opportunities for independent study in areas not directly covered by the curriculum.

Major Requirements

The requirements for the major in history are flexible enough to enable a student to pursue personal interests and goals and at the same time foster an appreciation for the diversity of the human experience. To qualify for a major in history the following minimum requirements must be met:

1. A minimum of nine history courses must be completed.
2. At least one course (at any level) must be drawn from each of the three broad categories into which the history curriculum is divided: (a) Europe and the ancient world, (b) North America and (c) Africa or Asia.
3. At least one of the nine courses must be a 400-level research seminar involving a substantial research project.
4. No more than two courses at the introductory (100) level may be credited toward the major.
5. Students must maintain a minimum 2.0 GPA in the major.

Minor Requirements

A minor in history provides students with an opportunity to select courses that provide coherence and variety, by concentrating in one of the following areas: Europe and the ancient world, North America or Africa and Asia. To qualify for a minor in history the following minimum requirements must be met:

1. One course at the introductory level in the selected minor field of history.
2. At least four courses at the intermediate or advanced level in the selected minor field of history, provided one is a 400-level seminar.
3. Among the minimum of five courses in the selected minor field of history, not more than one may be an independent study (489,490) or an internship (481,482).
4. Students must maintain a minimum 2.0 GPA in courses in the minor.
5. Students may design minor fields of concentrations within history other than those in Europe and the ancient world, North America or African and Asian history with the prior approval of the department chair.

Honors

The honors program in history enables qualified students to engage in intensive original work in the senior year. Admission to the program, at the discretion of the department, requires an average of at least 3.5 in major courses. Students seeking admission *must* apply to the chair of the department during the spring semester of

the junior year. Honors are granted upon the successful completion of an honors thesis written under the direction of a faculty advisory committee. Work on the honors thesis may earn two credits toward the major (History 498 and 499) and fulfills the seminar requirement. Completion of an acceptable first draft by the end of the fall semester (History 498) is required for admission to History 499 in the spring.

Certification to Teach Social Studies

Students seeking initial certification as a 7-12 social studies teacher can major in History. In addition to completing the certification minor in education, students majoring in history must also take: one economics course (Economics 100 – Introduction to Economics – is recommended if only one economics course is taken) *and* one government course (Government 103 – Introduction to American Politics– is recommended if only one government course is taken). Students must concentrate their studies in the major on courses that illuminate U.S. and/or world history and geography. Students are also encouraged to take courses in other social sciences and area studies to broaden their preparation for teaching social studies.

History majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the pre-certification minor in education as undergraduates (or its equivalent) and all of the social science requirements listed above (or their equivalents). Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Courses

100-Level Courses

Courses at the 100 level, designed specifically for first-year students and sophomores, provide a broad introduction to African, American, Asian and European history.

101. The Rise of Europe: From the Greeks to the Age of Revolution.

This course surveys the development of Western civilization from the beginnings of Greek civilization to the democratic and industrial revolutions of the late 18th century. Principal themes include the ideal of freedom and the realities of slavery and serfdom; the progress of technology and its environmental consequences; the interaction, both creative and destructive, of Europe with non-Western cultures. We shall also pay considerable attention to changing relationships between the genders. Readings will include selections from classic works of the western tradition, as well as other primary source materials. *Also offered through European Studies.*

102. The 20th-Century World.

This course is designed as a historical introduction to the contemporary world and its many baffling and dangerous problems. Among the themes to be considered are the impact of Western civilization on the non-Western world, the causes and consequences of the two World Wars and the rise and fall of Communism, the revolution in gender relations and the environmental crisis. Readings include novels, memoirs and other primary source materials from Europe, Asia, Africa and the Americas.

103. Development of United States (1607-1877).

The purpose of this class is to study the development of American society from the beginning of the colonial period through the Civil War and Reconstruction. While the course will follow the chronological development and changes in American society, it will also consider in some depth the major institutions, ideas and social movements that gave shape to the nation through the use of both primary and interpretive readings. Some of the topics that will be covered are Puritanism, mercantilism and capitalism, revolutionary era, federalism, the two-party system, nationalism and sectionalism, slavery, manifest destiny and the Civil War and Reconstruction.

104. Development of the United States (1877-Present).

The purpose of this class is to study the development of American society from the end of Reconstruction to the present. Emphasis will be placed on the institutions, ideas and movements that have shaped modern American society. Using both primary and secondary material, the course will discuss the chronological development and changes in American society as well as such topics as industrialization, urbanization, consumption and popular culture, rise of mass society and mass politics, America as a world power, civil rights and women's movements, Vietnam and Watergate.

105. Early East Asian Civilization.

This course is designed to introduce students to the early history of East Asia from the 4th century BCE to the late 17th century CE. The course is chronological but not comprehensive. It focuses on several themes, all turning around how cultures and societies evolve and develop in interaction with each other. In this course we will explore cultural encounters through trade, war and diplomacy, personal encounters between individuals of different cultures and the processes of cultural diffusion. We will pay attention to geography and the critical use of primary documents. *This is a core course for the Asian studies interdisciplinary major and the Asian studies minor. Also offered through Cultural Encounters.*

106. Modern East Asia.

This course examines the East Asian region from approximately 1650 to the present. We will discuss the creation, dismantling and continuing remnants of colonialism, World Wars I and II in the East Asian context, the Cold War, the Korean and Vietnam Wars and recent economic development, especially as it impacts women and the environment. The course begins with an overview of East Asian geography, culture and history. The course is designed to introduce students to major events and issues of modern East Asia and also to improve students' skills in critical reading, writing, use of primary and secondary sources and oral communication.

108. Introduction to African Studies: History and Development.

This course aims to build a fundamental awareness of Africa and its peoples, their struggles and achievements over time. It focuses on African responses and reactions to numerous challenges over the centuries. Specific themes include technological change and diffusion, demographic growth and migration, cultural and linguistic diversity, the impact of the slave trades, inclusion of Africa into an international economy, the colonial experience, the rise of nationalism and the challenges of development since independence. In addition to a number of published materials, the course draws upon some of the best films available. *Also offered through African Studies.*

110. The Scientific Revolution.

This course covers the development of scientific thought in the period 1500-1725. It examines changing views of nature in the fields of anatomy and physiology, astronomy and physics and requires more writing and student oral participation. Although the primary focus is on specific scientific developments, they are discussed within the context of concurrent social, economic and religious changes. This course fulfills the humanities distribution requirement. *Also offered as Physics 110 and through European Studies.*

200-Level Courses

Courses at the 200 level are primarily intended for sophomores and upperclass students, but are open to interested first-year students as well. These courses generally combine lectures and classroom discussions. They are more advanced than the introductory surveys, but broader in their treatment than most courses at the 300 level or above.

201. Canadian History.

This course traces the principal political, economic and social developments that mark the progress of Canada from its beginnings as a British colony in 1760 to its present position as a leading industrial nation. Special attention is given to regionalism, binationalism and Canadian-American relations. This course is particularly recommended to students interested in Canadian studies but is also a valuable course for those concentrating in American history. *Also offered through Canadian Studies.*

203. Ideas and American Culture: From the Amerindian Encounter to the Civil War.

This course explores the complex interrelationships between

ideas and the larger American culture. This study allows examinations of ideas as diverse as Puritan theology, the ideology of American republicanism and democracy, transcendentalism and reform, industrialism and the powerful opposing visions linked to slavery and free labor. The course considers the ways "ideas" are embodied in the objects of material culture and analyzes the uses to which ideas have been put in conflicts over social, racial and gender relationships.

204. Ideas and American Culture: From the Civil War to the Present.

Continuing the approach described above (History 203), this course examines ideas such as social Darwinism, pragmatism, imperialism, liberalism, Marxism, feminism and other recent trends in American thought. The course also explores the role of these ideas in the 19th and 20th century struggles concerning social class, race, ethnicity and gender.

205. 19th-Century Europe, 1815-1914.

An examination of major persons and events that shaped the economic, political and social developments of 19th century Europe. Using both the works of contemporaries such as Karl Marx, George Sand, John Stuart and Harriet Taylor Mill and Charles Darwin and of historians, the course explores the issues and individuals of the period. *Also offered through European Studies.*

206. 20th-Century Europe, 1914 to the Present.

An examination of the major persons and events that shaped the economic, political and social developments of 20th-Century Europe. Using both the works of contemporaries such as Erich Maria Remarque, Virginia Woolf, Primo Levi, Albert Camus and Vaclav Havel and of historians, the course explores the issues and individuals of the period. *Also offered through European Studies.*

207. Cultural History of Ancient Greece.

This course focuses on the social and psychological realities of life in Greece as reflected in literature and art from the time of Homer and Hesiod to Plato. Offered occasionally.

209. Medieval World.

An exploration of the culture of Europe from the fall of Rome to the dawn of the Renaissance (roughly 450-1350 CE), designed to demonstrate that medieval civilization is intrinsically fascinating and the source of many of our contemporary institutions, values and problems. The approach is thematic rather than strictly chronological, emphasizing social experience and cultural achievement. The bulk of the reading is drawn from primary sources: epics, romances, chronicles and philosophy. This course is particularly recommended to students interested in literature and art and to those contemplating a semester in Europe. *Also offered through European Studies.*

210. Renaissance World.

An examination of the society and culture of Europe from the Black Death to the Scientific Revolution (roughly 1350-1650). During this period medieval society was transformed, often painfully, into something recognizably "modern"—a civilization characterized by science, capitalism, imperialism and faith in material progress. This course emphasizes social experiences and cultural achievement and provides a background for study in Europe. *Also offered through European Studies.*

211. Women in Modern Europe, 1750 to the Present.

This course surveys the roles of women in the political, economic and social history of modern Europe. Beginning with the 18th century, the course traces the public and private activities of women and the changing cultural definitions of those activities up to the present. Topics to be examined include the Enlightenment, industrialization, revolutionary and wartime activities, the feminist movements and the rise of the welfare state. *Also offered through European Studies.*

215. History of Imperial Russia.

The history of the Russian state from the earliest times to the 19th century. Emphasis is placed on political history. *Also offered through European Studies.*

216. History of Russia in the 20th Century.

Study of the 1917 revolution and civil war in Russia and the subsequent development of the USSR. Emphasis is placed on Marxist-Leninist ideology and the Soviet Communist party. *Also offered through European Studies.*

217. Politics and History of the American Workplace.

A chronological and topical examination of the important changes that have occurred in the American workplace in the 19th and 20th centuries. This multidisciplinary study examines the effect of technology on social and political relationships and the effects of changes in the workplace on family, sex roles, the community and community values. Topics such as workplace democracy, recent experiments in worker participation schemes and government policy and regulation of the workplace are also examined. *Also offered as Government 217.*

229. Introduction to Native American History.

With the abandonment of earlier perspectives grounded in romantic and evolutionary stereotypes, Native American history represents today one of the most exciting, dynamic and contentious fields of inquiry into America's past. This course introduces students to the key themes and trends of the history of North America's indigenous peoples by taking an issues-oriented approach. We will cover material ranging from the debate over the Native American population at the time of first European contact to contemporary social and political struggles over casino gambling and land claims. The course stresses the ongoing complexity and change in Native American societies and will emphasize the theme of Native peoples' creative adaptations to historical change. *Also offered through Native American Studies.*

240. Europe at War.

A study of the diplomatic origins, ideological motivations and military conduct of World War I and World War II in Europe. *Also offered through European Studies.*

241. Britain to 1688.

This course and History 242 survey the development of Britain from a remote and expendable Roman province into the mistress of an empire four times the size of the Roman Empire. The course emphasizes the origins and early developments of those values and institutions that enabled Britain to achieve a power and influence out of all proportion to its size. About half of the course

is devoted to the critical Tudor-Stuart period (16th and 17th centuries), which brought Britain to the threshold of global power. One purpose of the course is to provide the historical context for the study of English literature and a background for students contemplating a semester in London. *Also offered through European Studies.*

242. Britain Since 1688.

This course traces the growth of Britain as the first industrial society and the greatest imperial power in history. An attempt is made to assess the impact, for good and ill, of British power upon non-Western societies in Asia and Africa and to evaluate the success or failure of the transplantation of British notions of law and constitutional governance. The course also attempts to discover the causes of England's steep decline in power and prestige in recent years. Like History 241, this course is designed to attract devotees of English literature and to provide a background for St. Lawrence's London program. *Also offered through European Studies.*

243. Origins of American Foreign Policy.

A study of the development of a distinctive American foreign policy to advance national interests from 1783 to 1900. This is a critical period in the history of American foreign policy since it saw the development of the United States from a small nation of 13 newly independent states to a continental power with overseas colonies. This phenomenal growth was largely due to the successful and aggressive foreign policies pursued by various administrations from Washington to McKinley and refutes the myth of American isolationism during the 19th century.

244. 20th-Century American Foreign Policy.

A history of the development and prosecution of American foreign policy following the emergence of the United States as a world power. Particular attention is focused on the effort to rationalize traditional democratic ideals with the expanding role of the United States as an imperialist world power. Much of the latter half of the course is devoted to an examination of the causes and consequences of the rivalry between the United States and the USSR and the post-Cold War era. It is strongly recommended that students take History 243 as preparation for this course.

251. British-French North America, 1606-1787.

During the first decade of the 17th century, both England and France established permanent colonies in North America—Jamestown and Quebec. For the next century and a half, the two European powers would strive, in war and peace, to displace the other as the master of the continent. In the end, England and her colonies would prevail, establishing a British American empire that stretched from the Atlantic to the Mississippi, from Hudson Bay to the Gulf of Mexico. This course explores the political, economic and social similarities and differences in the development of the English and French colonies to better understand the nature of the rivalry and the ultimate victory of the English. It also examines the reasons England, having achieved the empire she sought, soon lost most of it in the successful rebellion of her American colonists and why the French survived the conquest to form a distinct society in Quebec. *Also offered through Canadian Studies.*

254. Rise of the New Europe.

This seminar examines the construction and transformation of European identity in the 19th and 20th centuries. The impact of the encounters between Europeans and non-Europeans on the culture and society of both old and new Europe is a particular focus. Beginning with the debates on national identity in the early 19th century and continuing with inter-European migration and colonial expansion, the course examines the developing relationship between European and colonial peoples that led to the establishment of significant immigrant communities in the West. The course concludes with an assessment of topics relevant to current European social and political concerns. *Also offered through Cultural Encounters and European Studies.*

260. Modern Middle East Since 1914.

A survey of the history of the Middle East from 1914 to the present, set in the context of the region's internal politics. Starting with the collapse of the Ottoman Empire, the rise of Zionism and the rise of Arab nationalism, the course focuses on the development of modern Egypt, Israel, Lebanon, Syria, Iraq, Iran, the countries of the Arabian Peninsula and the Palestine Liberation Organization. *Also offered as Religious Studies 266.*

263. African American History to 1865.

This course offers a survey of the social, political, cultural and economic history of African Americans from the 1600s to the end of the Civil War. Topics of the course include the Atlantic slave trade, colonial and antebellum slavery, family life, resistance to slavery and African Americans' participation in the Civil War and contributions to the building of the nation.

264. African American History 1865–Present.

This course offers a survey of the social, political, cultural and economic history of African Americans from 1865 to the present day. Topics of the course include Reconstruction, the implementation of segregation, the Harlem Renaissance, African Americans' participation in both World Wars and Vietnam, the civil rights movement, the black power movement and activism in the 1980s and 1990s.

265. West Africa and the Diaspora.

West Africans were building complex social systems from approximately 1000 to 1800. This was also a time of unprecedented strain when millions of Africans were uprooted from their homelands and spread across the world as a result of the Atlantic and trans-Saharan slave trades. Scholarly research in the last decade has attempted to explain both slavery and the slave trade and to assess their impact on Africa, the Americas and the West. An understanding of these processes and their legacy is crucial to a fuller comprehension of human struggles and conflicts during the past 200 years.

266. The History of West Africa in the 19th and 20th Centuries.

This course is designed to achieve an understanding of the complexity and diversity of West African societies, of the numerous ways Africans reacted to external demands and challenges, of the major costs and consequences of colonialism, of the magnitude of efforts to achieve independence and of some of the most significant strategies to achieve development. Failures and achievements in West Africa during this period are relevant to an understanding of similar processes in many other parts of Africa and the Third World.

267. The Holocaust.

A study of the Holocaust, the events leading up to it and its theological implications for Judaism and Christianity. The course looks for possible causes in German culture and Christian preaching and examines other recent genocides for common factors and common lessons to be learned. *Also offered as Religious Studies 267 and through European Studies.*

280. History of Women in America.

This course examines the history of women in the United States in the context of broad social changes that occurred between 1600 and 1990. Political, social, legal, demographic and economic changes all shaped and informed the experiences of women in the colonies and the United States. The course examines how women responded to these changes and how they worked to bring about changes that improved the circumstances of their lives. Gender relations, race relations, industrialization, immigration and family structure provide focal points throughout the course.

282. History of Modern Japan.

This course deals with the social and institutional milestones in the historical evolution of Japan from about 1700 to the present. Topics include the transmutation of *bushido* (the way of the warrior) and other Tokugawa values into recent forms and the changing roles and status of women, the emergence of nationalism and World War II. The economic achievements and problems of modern Japan, with particular focus on the Meiji era and environmental and equity issues, will also be discussed.

291. History of Pre-Modern China.

This course is a survey of the history and culture of China from its origins to around 1800. Topics include the development and adaptation of Confucianism, Taoism, Legalism and Buddhism, the rise and fall of dynasties, China's relationships with the peoples on its frontiers, family structure and social organization.

292. Revolutionary China.

This course will have three sections, all turning around the central theme of revolution. First, we will examine the rise of the Communist Party after 1920 and the civil war that ended with the victory of the Communists in 1949. Second, we will analyze the causes, processes and effects of the Cultural Revolution of 1966–1976, using memoirs of Chinese who lived through that decade. Finally, we will consider the “economic revolution” of the 1980s and 1990s in the context of the Pacific Rim region, including a unit on the situation in Hong Kong, which returned to China in July 1997. In this section we will research and debate questions dealing with current U.S. policy toward China, using primary documents such as current newspapers and journals.

299. Sophomore Seminar.

This course is designed to offer students an opportunity to examine particular subjects in detail. While topics vary, the course is held in seminar fashion and entails extensive reading and writing assignments. Enrollment in the course is by permission of the instructor.

300-Level Courses

Students registering for 300-level courses must have at least one 100- or 200-level history course or permission of the instructor.

311. 19th- and 20th-Century Science.

This course examines a few of the major developments of the 19th and 20th centuries in some detail. Topics include evolution, genetics and a synthesis of the two; the wave theory of light and special relativity; the discovery of the atomic and nuclear structure of matter; and the Manhattan Project. Also considered are the various ways historians of science go about constructing the stories they write as well as some of the historiographic issues they face. This course satisfies the humanities distribution requirement. *Also offered as Physics 311 and through European Studies.*

315. Gender and Labor in Global Historical Perspective.

This course examines the history of working women and men to assess the changing constructions, definitions and developments of the intersecting subjects of gender and class in world historical perspective. It is the working premise of this course that those elements emerge through the encounters and interactions of societies and cultures rather than in isolation. Beginning with the 18th century, the course addresses the labor of women and men and historical understandings of the labor, through such topics as slavery, industrialization, imperialism and labor politics.

330. New World Encounters, 1500-1800.

The discovery of the Americas, wrote Francisco Lopez de Gomara in 1552, was "the greatest event since the creation of the world, excepting the Incarnation and Death of Him who created it." Five centuries have not diminished either the overwhelming importance or the strangeness of the early encounter between Europeans and the indigenous peoples of the Americas. Taking a comparative approach, this course will conceptualize early American history as the product of reciprocal cultural encounters by assessing the various experiences of Spanish, French and English newcomers in different regions of the Americas. Critical interpretation of primary source material will be emphasized in the course, as will the development of students' ability to reflect critically on these documents, taking into account the perspective of both the colonizers and the colonized. *Also offered through Native American Studies.*

333. The Age of the American Revolution.

An in-depth examination of the causes, progress and consequences of the American Revolution. Included is a summary of the constitutional, economic and social development of the colonies to 1763; the alteration of British colonial policy after 1763 and the American response; internal unrest within the colonies; the development of a revolutionary movement culminating in the Declaration of Independence; the war to secure independence; and the Constitution of 1787.

334. Civil War and Reconstruction.

This course addresses the social, political and cultural issues surrounding the Civil War and the efforts to resolve them before, during and after the war. While attention will be paid to the military nature of the conflict, this course places special emphasis on social and political developments that shaped the Civil War and Reconstruction eras. Topics of study include the road to disunion, the dismantling of slavery, race relations before, during and after the conflict, amendments to the constitution and the construction of citizenship in the post-war era.

337. Immigration in American History.

"Once I thought to write a history of the immigrants in America. Then I discovered the immigrants are American history." This course examines the immigrants' expansion in America. Why did people from Europe emigrate to America? What happened to these people upon arrival? What happened to them after several generations? What is the fate of immigrants in America today?

350. Native Peoples of the Northeast: From Contact to Casinos.

After an initial, hostile series of economic and military exchanges with Europeans beginning off the coast of Maine in 1524, the Native peoples of northeastern North America have undergone a fascinating and dramatic series of transformations. Adopting an interdisciplinary perspective, this course will analyze the history of Native Americans in the Northeast from a variety of perspectives. Key themes to be covered will include: warfare, changes in gender roles and relations, land claims, the reassertion of tribal identity, land claims and casino gaming. Readings and discussions will be drawn from a wide range of secondary and primary sources, including historical documents, traditional narratives, archaeological reports, the Internet and museum exhibits of material culture. *Also offered through Native American Studies.*

351. Iroquois History.

This course will explore the history and culture of the Iroquois people from the era prior to their first contact with European peoples, through their diaspora following the American Revolution to their present-day struggles and achievements in Canada and the United States. Adopting an interdisciplinary perspective, students will be exposed to a variety of methodologies and approaches to reconstructing the Iroquois past. Readings and discussions will be drawn from a range of sources, including historical documents, traditional narratives, archaeological reports, ethnography, contemporary Iroquois literature, the Internet and museum exhibits of material culture. Students will have the opportunity to compose their own interpretation of some aspect of Iroquois history in a significant research essay. *Also offered through Native American Studies.*

362. Topics in American Economic History.

This course provides an overview of the economic development of America from the colonial period to the present and examines in detail several of the classic controversies of the "new economic history." Emphasis is placed on the role economic theory can play in understanding pivotal events of the American experience. Prerequisites: Economics 251 and 252. *Also offered as Economics 362.*

363. Topics in African History.

Topics vary, but have included transformations in African agrarian history; southern Africa: internal dynamics and international relations; and economic change in east, central and southern Africa. Consult the history department course guide for current offerings. *Also offered through African Studies.*

365. Colloquium in American History.

Topics vary. Consult the department course guide for current offerings.

369. Pan-Africanism: Past, Present and Future Prospects.

Pan-Africanism is a set of fascinating, albeit diverse and often conflicting, ideas as well as a movement that has deep connections to the African continent and to many other regions of the world. This course will explore these dimensions within a historical and theoretical context. Major issues of community and identity, and changes within both, particularly within a diaspora framework, will be a significant focus of this course. Particular attention will be centered on the seven Pan-African congresses during the 20th century where Africans and persons of African descent outside the continent of Africa have explored their commonalities as well as their differences, as they have debated ways to meet an array of challenges with-in colonial, national and international settings. The course will conclude with a broad attempt to identify the prospects for Pan-Africanism as the world community moves into the 21st century.

370. Recent America.

Examines American history from 1945 to the present. In this period, the United States emerged as a nuclear superpower. Americans discovered the hula-hoop and sugar-free, caffeine-free cola drinks, a president was almost impeached and the nation struggled with a protracted and undeclared war. This course explores the political, social and economic changes of the recent past and examines the many ways American society has been reshaped within two generations.

371. 18th-Century Europe and the French Revolution.

This course examines the origins of the French Revolution in 18th-century Europe and the revolution itself. Topics include social, economic and cultural as well as political questions; the consequences of the revolution for France, Europe and the world up to 1815 are considered. The ever-changing historiography of the revolution provides the organizing principle for the course. *Also offered through European Studies.*

372. History of Modern France, 1815 to the Present.

This course provides an upper-level survey of French history from the Restoration through the Fifth Republic. The legacy of the 1789 Revolution, the origins of the Dreyfus Affair, the Vichy Regime and the Resistance, de Beauvoir's feminism, de Gaulle's presidency and the rise of the National Front are among the many topics explored. The course includes cultural and social history as well as politics and foreign policy. *Also offered through European Studies.*

373. Japan and the United States in World War II, 1931-1952.

In this course we examine the relationship between Japan and the United States in the 1930s, 1940s and 1950s. We will discuss anti-war political activism in the U.S. and Japan; the internment of Japanese-Americans, the role of propaganda in both countries, the bombing of Hiroshima and Nagasaki and the Allied occupation of Japan after the war. This is a writing-intensive course. We will work on writing and oral communication skills and discuss such concerns as how cultures understand and misunderstand each other.

374. Women in East and Southeast Asia.

This course is devoted to a discussion of selected women's issues in recent East and Southeast Asia, from historical, cultural and economic perspectives. Topics include colonialism, nationalism, socialism and revolution, family life, work and career and self-representation. This course is designed to provide students with intensive writing practice, a better understanding of issues of gender, justice, cross-cultural encounters and a deeper knowledge of Asian society and history.

375. Colloquium in European History.

Topics vary; consult the department course guide for current offerings.

376. Colloquium in African History.

Topics vary; consult the department course guide for current offerings.

377. Colloquium in Asian History.

Topics vary; consult the department course guide for current offerings.

471-480. Seminars.

Seminars, intended primarily for majors, are normally limited to 15 students and require the production of a substantial research paper. Successful completion of at least one seminar course is required for the major. Odd-numbered topics are taught in the fall, even-numbered courses in the spring. Topics vary; consult the current department course guide for details. Prerequisite: permission of the instructor.

471-472. Seminars in European History.

Also offered through European Studies.

473-474. Seminars in American History.

475-476. Seminars in Asian History.

Also offered through Asian Studies.

477-478. Seminars in Comparative History.

479-480. Seminars in African History.

Also offered through African Studies.

481,482. Internships.

These courses provide an opportunity for qualified juniors and seniors to obtain one credit during the fall or spring semester for work at local, state or national historical agencies, archives or museums. Supervision of the intern is provided by the host agency. Responsibility for evaluating the experience rests with the history department faculty coordinator. The internship must be set up in the prior semester at the initiative of the student in consultation with one faculty member and the chair. Prerequisite: permission of instructor and chair of the department.

489,490. Independent Studies.

To qualify, students must have a 3.2 GPA in the history department. Normally, students should have junior or senior standing with a major or minor in history. Applicants must demonstrate that the study they wish to pursue has serious intellectual merit and that their objectives cannot be accomplished within the framework of existing course offerings. This course must be set up in the prior semester. Prerequisite: permission of instructor and chair of the department.

498,499. Honors Thesis.

See the description of the history honors program above. Completion of an honors thesis fulfills the seminar requirement. Students should consult the department chair for complete details on pursuing an honors thesis.

Intercollegiate Athletics and Recreation

Minor offered in Sports Studies and Exercise Science

Professor Fay; Associate Professors Metcalf, Strait (chair).

The scope of the intercollegiate athletics and recreation department's programming includes intercollegiate athletics, intramural and recreation programs, sport and physical activity clubs, outdoor education programs, fitness and wellness programs and instructional programs.

The *instructional programs* are designed to provide students with the opportunity to acquire content knowledge and skills related to physical activity, fitness/wellness, sport and outdoor recreational pursuits. They involve both credit and non-credit bearing opportunities.

The instructional program includes four major components:

Credit-bearing courses, which provide course work that leads to a minor in sports studies and exercise science. Course concentrations include the study of physical activity and sport through sociological, psychological and philosophical perspectives; sport medicine; outdoor education; fitness/wellness; and coaching certification for public school athletics. Students also have the opportunity to apply their knowledge and skills in various student leadership and internship opportunities available within the campus community.

Non-credit-bearing courses include instructional classroom programs focused on health-related topics of fitness and wellness such as nutrition, cardiac-risk assessment and stress

management. These provide the essential educational dimension for the St. Lawrence Fitness and Wellness Program.

Physical activity courses, which include outdoor recreational activities such as hiking, backpacking, canoeing and kayaking, plus lifetime physical activities including golf, tennis, squash, dance, martial arts and yoga.

Certification programs in Red Cross CPR, first aid and lifeguarding plus New York State Adirondack Guide Certification.

Requirements for Minors

The department offers a minor in sports studies and exercise science (SSES) for students wishing to pursue interests in such areas as sport medicine, outdoor education, health and fitness, sport management, sport psychology and sport sociology. Students who are interested in the sports studies concentration must complete SSES 115 (Introduction to Kinesiology) and then establish a five-course sequence to complete the minor. Students who are interested in the exercise science concentration will complete 107 (Introduction to Functional Anatomy) and then establish a five-course sequence to complete the minor. Students will be advised by the department's director of instructional programs. They will have opportunities to become involved as student leaders, peer-teachers and/or facilitators in sport medicine, fitness/wellness programs, outdoor education and sport management. Minors must be declared by the end of the junior year.

Concentration Sequences

Sports Studies

- 115. Introduction to Kinesiology.
- 116. Leisure Patterns in a Transitional Society.
- 210. Psychological Perspectives on Sport.
- 212. Sociological Perspectives on Sport.
- 216. Philosophical Perspectives on Sport.
- 306. Human Growth and Motor Development.
- 319. Sport Medicine.
- 320. Coaching Theory.
- 415. Senior Seminar.
- 491. Internship.

Exercise Science

- 107. Introduction to Functional Anatomy.
- 234. Human Exercise Physiology.
- 306. Human Growth and Motor Development.
- 319. Sport Medicine.
- 491. Internship.

Coaching Certification

Students completing the following courses in sequence will earn a certificate to coach in the public schools of New York state. Students pursuing teacher certification in other disciplines are strongly encouraged to explore this option.

- 115. Introduction to Kinesiology. *or*
- 216. Philosophical Perspectives on Sport.
- 319. Sport Medicine.
- 320. Coaching Theory.

Courses

- 100 A-P. Lifetime Physical Fitness and Wellness. (5 units)

The intent of the course is to expand students' awareness of the potential of physical activity to enrich one's quality of life. The course is designed to provide each student with conceptual and practical exposure to principles of fitness and wellness that will be useful throughout the adult years.

- 100 Q&R. Outdoor Recreation. (5 units)

This course is designed to expand awareness of the potential for outdoor recreation as a lifelong activity to enrich one's quality of life. This experiential course will provide each student with the knowledge and skills necessary to undertake a two-day field experience in the backcountry of the Adirondack Mountains. The activity choices are backpacking or canoeing. Students must participate in the field experience that will be scheduled for the fifth or sixth weekend of the course.

- 100 S. Aquatics (5 units)

This course offers students knowledge and skills related to for water safety and lifeguarding. To be admitted to the course, students will be required to pass a test of swimming skills. At the conclusion of the course, students will have the opportunity to complete an American Red Cross Lifeguarding Certificate.

- 107. Introduction to Functional Anatomy. (1 unit)

This course is the required introductory course for the exercise science concentration of the minor. The primary focus of the class will be on human musculoskeletal anatomy and physiology. Lectures and laboratory experiences will emphasize the complementarities of the structure and function of those systems involved in physical activity. Laboratory sessions will supplement the course. It is recommended that this course be taken during the spring semester.

- 115. Introduction to Kinesiology. (1 unit)

This course is the introductory course for the sports studies concentration of the minor. It focuses on the study of physical activity from socio-cultural, behavioral and biophysical perspec-

tives. Emphasis will be placed on the role of physical activity in human development as it relates to the structures of school, community, workplace and the natural environment.

- 116. Leisure Patterns in a Transitional Society. (1 unit)

This course involves an examination of the concept of leisure and the social dynamics that influence perceptual and participatory patterns. Emphasis is placed on understanding the play process and the extent to which it may be constrained and/or distorted by the influence of an achievement-oriented society. Students are encouraged to examine their personal perspectives with regard to their leisure behavior and selection of leisure pursuits.

- 210. Psychological Perspectives on Sport. (1 unit)

This course entails the study of human behavior within the context of the sport environment. Motivation, arousal, attention focus and behavior are studied in relation to performance. Skill development is analyzed relative to learning, efficacy and psychomotor abilities. The influence of leadership plus team and the coach/athlete relationships are also examined to determine their effects on performance.

- 212. Sociological Perspectives on Sport. (1 unit)

This course is a study of the structural dimensions of the social phenomenon of sport. Attention is directed toward examining the relationship between sport as a social institution and other dominant patterns of social interaction. The culture of the United States is the primary medium for analysis, but comparative and cross-cultural investigations are included where appropriate.

- 214. Sport and Gender. (1 unit)

A critical analysis of the role that gender has played and continues to play in the social institution of sport. Outdated beliefs and myths that have persisted in the traditionally male-oriented and male-dominated world of sport will be examined. The impact and significance of feminist ideas in promoting human values at all levels of sport will also be explored.

- 216. Philosophical Perspectives on Sport. (1 unit)

This course provides an introduction to sport through a philosophical perspective. Primary emphasis is on a general notion of reality, knowledge and values and their relationship to sport. The implications of the impact of sport on education and leisure lifestyle patterns are explored. It is recommended that this course be taken during the first year.

- 234. Human Exercise Physiology. (1 unit)

This course deals with the structure and function of the organs and systems of the human body and the physiological changes that result from exercise. Lectures are supplemented by one laboratory experience per week. Recommended for fall of the sophomore year. Prerequisite: SSES 107.

- 306. Human Growth and Motor Development.

The aim of this course is to have students gain an understanding of motor skill changes, growth patterns and human development from the prenatal stage through old age, including infancy, early childhood, adolescence, all stages of adulthood, death and the grieving process. The course will study aging as an ongoing process, noting observable changes, socio-emotional development, prevention of disease and gender differences. Includes a service-learning component.

319. Sport Medicine. (1 unit)

This course is designed to give the coaching candidate a thorough background in the care and prevention of injuries to athletes. Class topics include nutrition, physical fitness and modern techniques of sport medicine. Lab sessions include basic skills in first aid and evaluation and rehabilitation of athletic injuries. Limited to 16 upperclass students; non-majors must have approval of department chair. Prerequisites: SSES 115 or SSES 216 and permission of instructor.

320. Coaching Theory. (1 unit)

This course is designed to provide an overview of the philosophies and practices of coaching. Professional responsibilities, management styles and coach/athlete interaction styles are examined as they pertain to all aspects of the coaching challenge. Prerequisites: SSES 115 or SSES 216 and SSES 319.

401. Seminar in Fitness. (1 unit)

Through the resources of several disciplines, students study the normal function of the cardiovascular, pulmonary and muscular systems, detrimental effects of poor maintenance, and how and by what means the body can resist and fight back. Physiological fitness is then integrated into broader elements of the problems confronted in everyday life. Guest lecturers share their expertise and students contribute through assigned readings. Practical experience is gained through weekly lab experiences in the Human Performance Lab. A required student project is presented in the seminar. Permission of the instructor is required.

415. Senior Seminar. (1 unit)

The seminar focuses on topics and issues evident in sport, outdoor adventure and leisure-oriented professions. Emphasis is placed on programming and administrative functions. Societal factors that may bring about change are explored. Open to SSES minors only.

489. Independent Study. (1 unit)

This opportunity for independent study offers students the opportunity to pursue a community service project. Proposals must be presented to the department chair (or designee) for approval. Students may not earn more than one semester of credit for this course.

490. Independent Study. (1 unit)

This opportunity for independent study offers students the opportunity to pursue specialized study or research under faculty supervision. Proposals must be presented to the department chair (or designee) for approval. Students may not earn more than one semester of credit for this course.

491. Internship. (1 unit)

Internship opportunities are available in such areas of sport medicine, fitness and sport management. The internship is designed as a student-arranged study that comprises a structured experience with an organization or institution and involves intensive work on a particular project. A seminar will be also required. Open to SSES minors only.

Non-Credit Instructional Programs

These programs provide an opportunity to learn skills and to participate in regular, structured physical activity. After students graduate, facilities and opportunities are usually not as prevalent and private lessons, health centers and personal trainers become expensive options. The activities will focus on the acquisition of the knowledge and skill necessary to successfully participate in lifetime physical activities that are challenging, personally fulfilling and fun. Fees may be required.

- *Lifetime Physical Activities*: golf, tennis, squash, cross-country skiing
- *Outdoor Education*: team-building activities, ropes course
- *Risk Challenging Activities*: rock climbing, hiking, camping, snow shoeing
- *Aquatics*: water aerobics, kayaking, scuba
- *Fitness/Wellness Programs*: nutrition, health-related fitness programs
- *Aerobics*: step aerobics, spinning
- *Martial Arts*: karate, judo, kick boxing
- *Dance*: modern, social, swing, country

Fitness and Wellness

This program is designed in workshop or seminar format to provide fitness and wellness instruction for students, faculty, staff and members of the St. Lawrence Fitness Club. Programming will include the following topics:

- Personal fitness and wellness testing and health-risk appraisal
- Fitness planning
- Nutrition
- Stress management

Certification Programs

Various certification programs are offered throughout the academic year, including:

- Red Cross CPR
- First Aid
- Lifeguarding
- Water Safety Instructor
- New York State Guide

Mathematics

Major and minor offered

Professors DeFranza, Fleming, Knickerbocker, P. Lock, R. Lock, Sheard (chair), Singh;

Associate Professors Bos, Giarrusso, Melville;

Assistant Professor Ladd.

The department of mathematics is proud of the wide variety of courses available to both majors and non-majors and we encourage all students to take advantage of the many opportunities to explore mathematical thought. For the mathematics major, there are courses in pure mathematics, applied mathematics, statistics, operations research and computer science.

These courses prepare students for the many careers in which mathematics plays a major role, such as actuarial work, secondary school teaching, business, computer science, operations research and statistics. Many majors pursue advanced degrees after graduation, in the mathematical sciences as well in such diverse fields as medicine, law and business administration. There are numerous opportunities for majors to conduct independent research, either in an independent study course or as a paid summer research intern. In addition, opportunities exist for student employment in the department during the academic year. We encourage our majors to be active learners and to become active participants in department life.

We are also proud of our commitment to educating students who are not mathematics majors. For science and social science majors, there are courses in calculus, statistics, computer science and linear algebra. For non-science majors, there are courses that contain the significant ideas and methods of mathematics. We believe we offer something for everyone and we encourage all students to investigate these offerings. Any member of the department is available to advise students in making an appropriate choice.

While maintaining our strong commitment to teaching in a liberal arts setting, all members of the department maintain active research programs in mathematics. The work of department

members involves study in the areas of applied mathematics, applied statistics, algebraic geometry, computer science, functional analysis, graph theory, logic and set theory, mathematical programming, wave theory, optimization and summability.

The following sentence has appeared in every St. Lawrence *Catalog* since 1896: "Instruction in this department is intended to aid in the development of exact, concise and independent reasoning, to cultivate the imagination and to inspire habits of original and independent thought." In the years since 1896, mathematical knowledge has expanded and courses have been drastically changed, yet these words remain appropriate.

Major Requirements

The requirements for a major in mathematics are a total of 11 units of mathematics, including:

- 135. Calculus I.
- 136. Calculus II.
- 205. Multivariable Calculus.
- 280. Bridge to Higher Mathematics.
- 305. Real Analysis. *or*
- 306. Complex Analysis.
- 315. Group Theory. *or*
- 316. Ring Theory.

The remaining five courses must include at least two at the 300 level or above. Math 110, 111, 115, 123 and 134 may not be counted toward the major in mathematics.

Mathematics majors are encouraged to develop reasonable competency with computers.

Students planning to major in mathematics are encouraged to complete Mathematics 280 before the end of the sophomore year, as this course is a prerequisite for many courses at the 300 level and above.

Students considering graduate work in mathematics are strongly encouraged to take Math 217 (Linear Algebra) and Math 305, 306 and 315, 316 (a full year each of analysis and algebra).

Students planning to participate in an off-campus program should seek early advice from the department on the best way to plan their major program.

Honors

Honors work in mathematics provides the student with an opportunity for more independent and creative work in pure or applied mathematics. A minimum GPA of 3.5 in all mathematics courses is required to receive honors in mathematics. In addition, each student applying for honors must complete a departmentally approved honors project. This work is usually completed during the spring semester of the senior year. Interested students should consult the department chair.

Minor Requirements

The requirements for a minor in mathematics are Mathematics 135, 136, 205 and four additional math courses, at least three of which must be at the 200 level or above. Math 110, 115, 123 and 134 may not be counted toward the minor in mathematics.

Related Major Programs

Two other majors that include mathematics are available to students: an interdisciplinary major in economics/mathematics and a combined major in mathematics/computer science. Each is described in its own section of this *Catalog*. The mathematics department also supports the major in computer science.

Related Minor Programs

The mathematics department supports a minor in applied statistics that incorporates courses from mathematics and several other departments. The department also offers a minor in computer science. The requirements for these programs are described elsewhere in this *Catalog*.

Certification to Teach Mathematics

Students seeking initial certification as a 7-12 mathematics teacher in New York must major in mathematics and also complete the certification minor in education. Strongly recommended for the teaching certificate in mathematics are courses in geometry, statistics, computer science and physics. Mathematics majors in-

tending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the mathematics major and the pre-certification minor in education (or its equivalent) as undergraduates. Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible. Students should also consult early with a member of the mathematics department to schedule required courses around the professional semester.

Courses

110. Concepts of Mathematics.

An introduction to significant ideas of mathematics, intended for students who will not specialize in mathematics or science. Topics are chosen to display historical perspective, mathematics as a universal language and as an art and the logical structure of mathematics. This course is intended for non-majors; it does not count toward either the major or minor in mathematics; students who have passed a calculus course (Mathematics 135, 136 or 205) may not receive course credit for Mathematics 110.

111. Mathematics of Decision-Making.

Recently developed and extremely useful techniques in decision-making processes are examined and implemented. Problems such as maximizing profits, minimizing costs and efficient allocation of resources are studied using techniques of linear and non-linear programming. Applications of graph theory, network analysis (PERT-CPM) and dynamic programming may also be discussed. This course may be useful for students intending to pursue graduate study in economics or business administration. This course does not count toward the major in mathematics.

113. Applied Statistics.

An introduction to statistics with emphasis on applications. Topics include description of data, elementary probability theory, sampling, estimation, hypothesis testing, analysis of variance, regression and chi-square tests.

115. Mathematical Modeling of the Environment.

To understand our environment better, we construct simple models to describe complex situations and predict the consequences of our actions. This course introduces some techniques of mathematical modeling as applied to contemporary environmental issues. This course is intended for non-majors; it does not count toward either the major or minor in mathematics; students who have passed a calculus course (Mathematics 135, 136 or 205) may not receive course credit for Mathematics 115.

123. Mathematics of Art.

This course explores the connections between mathematics and art: how mathematics can provide a vocabulary for describing and explaining art; how artists have used mathematics to achieve artistic goals; and how art has been used to explain mathematical ideas. This course is intended for non-majors; it does not count toward either the major or minor in mathematics.

134. Functions, Relations and Introductory Analytic Geometry.

A development of skills and concepts necessary for the study of calculus. Topics include the algebraic, logarithmic, exponential and trigonometric functions; Cartesian coordinates and the interplay between algebraic and geometric problems; functional equalities and inequalities and their graphs. This course is intended for students whose background in high school was not strong enough to prepare them for calculus; it does not count for distribution credit or for the major or minor in mathematics. Students who have passed a calculus course (Mathematics 135, 136 or 205) may not receive course credit for Mathematics 134. Offered fall semester only.

135. Calculus I.

An introduction to the subject, intended primarily for students in mathematics, science, economics or basic engineering. Topics include limits; continuity and differentiability of real-valued functions of a single variable; derivatives; graphing and optimization problems; anti-differentiation; applications.

136. Calculus II.

A continuation of Calculus I. Topics include Riemann sums and the definition of the definite integral; techniques of integration; approximation techniques; improper integrals; application and related topics. Prerequisite: Mathematics 135 or the equivalent.

205. Multivariable Calculus.

Topics include sequences, series, the calculus of functions with several variables, vector-valued functions. Prerequisite: Mathematics 136 or the equivalent.

206. Vector Calculus.

A direct continuation of Mathematics 205, the main focus of this course is the study of smooth vector fields on Euclidean spaces and their associated line and flux integrals over parameterized paths and surfaces. The main objective is to develop and prove the three fundamental integral theorems of vector calculus: the Fundamental Theorem of Calculus for Line Integrals, Stokes' Theorem and the Divergence Theorem. Prerequisite: Mathematics 205.

213. Applied Statistics II.

A continuation of Mathematics 113 intended for students in the physical, social or behavioral sciences. Topics are chosen from among multiple linear regression, principles of experimental design, analysis of variance, analysis of residuals, and nonparametric procedures. A thorough introduction to the use of a statistical computer package is also included. Prerequisite: Mathematics 113 or permission of instructor.

217. Linear Algebra.

A study of finite dimensional linear spaces, systems of linear equations, matrices, determinants, bases, linear transformations, change of bases and eigenvalues.

230. Differential Equations.

An introduction to the various methods of solving differential equations. Types of equations considered include first order ordinary equations and second order linear ordinary equations. Topics covered may include the Laplace transform, numerical methods, power series methods, systems of equations, and an introduction to partial differential equations. Applications are presented. Prerequisite: Mathematics 136.

280. A Bridge to Higher Mathematics.

This course is designed to introduce students to the concepts and methods of higher mathematics. Techniques of mathematical proof are emphasized. Topics covered include set theory, relations, functions, countable and uncountable sets and additional topics as selected by the instructor.

305. Real Analysis.

A rigorous introduction to fundamental concepts of real analysis. Topics may include: sequences and series, power series, Taylor series and the calculus of power series; metric spaces, continuous functions on metric spaces, completeness, compactness, connectedness; sequences of functions, pointwise and uniform convergence of functions. Prerequisites: Mathematics 205 and 280. Offered fall semester.

306. Complex Analysis.

Topics include algebra, geometry and topology of the complex number field, differential and integral calculus of functions of a complex variable. Taylor and Laurent series, integral theorems and applications. Prerequisites: Mathematics 205 and Mathematics 280. Offered spring semester.

315. Group Theory.

An introduction to the abstract theory of groups. Topics include the structure of groups, permutation groups, subgroups and quotient groups. Prerequisite: Mathematics 280.

316. Ring Theory.

An introduction to the abstract theory of algebraic structures including rings and fields. Topics may include ideals, quotients, the structure of fields, Galois theory. Prerequisite: Mathematics 280.

317. Mathematical Logic.

An introduction to modern mathematical logic, including the most important results in the subject. Topics include propositional and predicate logic; models, formal deductions and the Gödel Completeness Theorem; applications to algebra, analysis and number theory; decidability and the Gödel Incompleteness Theorem. Treatment of the subject matter is rigorous, but historical and philosophical aspects are discussed. Prerequisite: Mathematics 280. *Also offered as Computer Science 317 and Philosophy 317.*

318. Graph Theory.

Graph theory deals with the study of a finite set of points connected by lines. Problems in such diverse areas as transportation networks, organizational structure, chemical bonds, allocation and distribution of good and services, genealogical family trees, group structure in psychology and sociology, tournaments and electrical circuit analysis can be formulated and solved by the use of graph theory. Prerequisite: Mathematics 217 or 280 or permission of instructor. *Also offered as Computer Science 318.*

323. History of Mathematics.

This course is given on a seminar basis. Primarily for juniors and seniors. Prerequisite: permission of instructor.

325. Probability.

This course covers the theory of probability and random variables, discrete and continuous distributions, mathematical expectations and limit theorems. Prerequisite: Mathematics 205.

326. Mathematical Statistics.

Following Mathematics 325, this course deals with estimation of parameters, properties of estimators, and topics of statistical inference including tests of hypotheses, confidence intervals, simple and multiple linear regression and analysis of variance. After successful completion of the Mathematics 325,326 sequence, a student is ready to take the second actuarial examination. Prerequisite: Mathematics 325.

327. Optimization Theory I.

A mathematical treatment of problems such as maximizing profits, minimizing costs, shipping goods, assigning manpower in an optimal way and designing winning game strategies. Topics for the first semester are selected from general linear programming, simplex method, duality theory, decision theory and games, two-person zero-sum games, matrix games, game theory and linear programming; applications. Prerequisite: Mathematics 205.

328. Optimization Theory II.

A continuation of Mathematics 327, topics in the second semester may include non-linear programming, constrained-unconstrained problems; Kuhn-Tucker conditions; and saddle point theory. This course may be useful for students intending to pursue graduate study in economics or business administration. Prerequisite: Mathematics 327 or permission of instructor.

330. Differential Equations II.

This course continues the study of differential equations from Mathematics 230. The study considers higher order equations, systems of equations, Sturm-Liouville problems, Bessel's equation and partial differential equations. Existence and uniqueness theorems and ordinary and singular points are discussed and applications are given. Prerequisites: Mathematics 217 and 230.

333. Mathematical Methods of Physics.

Important problems in the physical sciences and engineering often require powerful mathematical methods for their solution. This course provides an introduction to the formalism of these methods and emphasizes their application to problems drawn from diverse areas of classical and modern physics. Representative topics include the integral theorems of Gauss and Stokes, Fourier series, matrix methods, selected techniques from the theory of partial differential equations and the calculus of variations with applications to Lagrangian mechanics. The course also introduces students to the computer algebra system *Maple* as an aid in visualization and problem solving. Prerequisites: Mathematics 205 and Physics 152. *Also offered as Physics 333.*

343. Time Series Analysis.

Statistical methods for analyzing data that vary over time are investigated. Topics include forecasting systems, regression methods, moving averages, exponential smoothing, seasonal data, analysis of residuals, prediction intervals and Box-Jenkins models. Application to real data, particularly economic data, are emphasized along with the mathematical theory underlying the various models and techniques. Prerequisite: Mathematics 136 or permission of the instructor. *Also offered as Economics 343.*

351. Theory of Numbers.

The theory of numbers deals with the integers. Some of the topics are divisibility, simple and continued fractions, congruences, quadratic residues and Diophantine equations. Prerequisite: Mathematics 280.

370. Topology.

An introduction to topology. Various topics may include the general notion of a topological space, subspaces, metrics, continuous maps, connectedness, compactness, deformation of curves (homotopy) and the fundamental group of a space. Prerequisite: Mathematics 280.

380. Theory of Computation.

This course fosters a depth of understanding of the basic theoretical underpinnings of computer organization and programming. Students will learn the Chomsky hierarchy of languages and how to design various classes of automata to recognize computer languages. Application of mathematical proof techniques to the study of automata and grammars enhances students' understanding of both proof and language. Students will learn to communicate their new understanding through a combination of written assignments and class presentations. Prerequisite: Computer Science 319. *Also offered as Computer Science 380.*

389,390. Independent Projects.

Permission required.

394. Numerical Analysis.

Finite differences, interpolation, numerical integration and differentiation, numerical solution of differential equations and related subjects. Prerequisites: Mathematics 217.

395. College Geometry.

A consideration of some advanced topics in plane geometry from a historical perspective. Euclidean plane geometry is reviewed through a study of constructions in the plane and extended through space geometry and the geometry of the sphere, Euclidean transformations in the plane, the nine-point circle, circle of Apollonius and a brief introduction to non-Euclidean geometry through the Saccheri quadrilateral. Especially recommended for prospective secondary school teachers.

400. Senior Project for Majors.

Permission required.

Mathematics- Computer Science

Combined major offered

The primary objective of the mathematics-computer science combined major is to allow students to explore the lively boundary between computer science and mathematics, where these two disciplines interact and support each other in important ways. This program is designed to give students a core knowledge in both disciplines, to allow them to build on that core with the advanced courses and to provide the foundation necessary to pursue an advanced degree.

Requirements

Computer Science Courses

Basic Courses 4 units

140. Introduction to Computer Programming.
219. Techniques of Computer Science.
220. Computer Organization.
319. Data Structures.

Core Courses 2 units

- Two of the following:
362. Algorithm Analysis.
364. Programming Languages
380. Theory of Computation.

Electives

- Two courses at the 300 level or above 2 units
8 units

Mathematics Courses

- Calculus Sequence 3 units
135. Calculus I.
136. Calculus II.
205. Multivariable Calculus.

Core Theory Courses 2 units

280. A Bridge to Higher Mathematics.
315. Group Theory. *or*
316. Ring Theory.

Electives 3 units

- Three courses at the 200 level or above,
With at most one course at the 200 level

8 units

Total units 16 units

One of the electives—in either computer sciences or mathematics—must be an approved senior project or senior thesis.

Modern Languages and Literatures

Majors offered in French, German, Spanish or Multi-Language

Minors offered in French, Spanish

Professors Brokoph, Dargan, White; **Associate Professors** Caldwell (chair), Chiba, Kreuzer, Stipa; **Assistant Professors** Casanova-Marengo, Llorente, Markaida-Golzari (visiting), Yanez del Pozo (visiting), Tremblay; **Instructors** Hiramatsu (visiting), Mahero (visiting).

The department of modern languages and literatures is located in Carnegie. The facility houses classrooms equipped with the latest teaching technology, including sound systems, Internet access and video and computer data projection. This technology is routinely used by our professors and by the students who learn from them. Additionally, we have two fully equipped computer classrooms in our language resource center. These classrooms double as teaching spaces and language laboratories where students conduct their oral comprehension practice via our new VirtuaLab digital video/audio delivery system. The department also subscribes to foreign language television, which is available in all classrooms and student rooms on campus.

Foreign languages and literatures have always been important elements of a liberal arts education at St. Lawrence. They free the individual to discover the content and value of other cultures, to enrich personal experiences through contacts with others on their own terms and to enter into worlds of thought and expression that would otherwise be inaccessible. Languages thus play a key part in reducing ethnocentricity.

In an age when almost instant communication links the peoples of the world, when the relationships among nations are evolving rapidly and when Americans are increasingly aware of the riches of their diverse cultural heritage, the ability to use a second language acquires a new importance. Any level of proficiency in a foreign language supports both international understanding and basic contacts with various language groups in the United States. High-level ability promotes meaningful, accurate communication.

St. Lawrence graduates with foreign language skills have found positions in fields such as banking, education, government, law, retailing, industry and social service. Many now live abroad or have spent time working in other countries.

The department offers courses at several levels in French, German, Italian, Japanese, Kiswahili, Russian and Spanish. Language courses

are oriented toward achievement of oral and written proficiency. Classes are small to facilitate the acquisition of language skills. Study of the various literatures is also available; these classes are conducted wholly in the language. Some courses in foreign literatures are also taught in English. A seminar-discussion approach is commonly used. Many courses in the department fulfill the foreign language distribution requirement; others fulfill the humanities or diversity requirement.

The advanced courses in the department are designed to foster development of high-level language and analytical skills through study of literature, culture, film and the media. Advanced language courses enable students to gain a deeper understanding of the written and oral expression of a foreign culture.

The department regularly sponsors foreign language films, guest lecturers and other related activities. Chapters of the principal language honorary societies are also under departmental sponsorship.

The department encourages all students with sufficient skills to participate in a St. Lawrence University program in Austria, Costa Rica, France, Kenya, Italy, Russia or Spain. Residence abroad enables students to achieve fluency in the language, which leads to a solid understanding of the host culture and a deeper understanding of their own.

Every year the department employs a number of students with advanced language skills as teaching assistants in the language laboratories and as tutors. In addition, students with an interest in technology may work in the language resource center as instructional technology interns.

Entering students who continue language study begun elsewhere are assigned to the appropriate course on the basis of their score on the College Entrance Examination Board achievement examination and their high school record.

A student who has offered two years or more of foreign language study for entrance

credit may not repeat these language courses for credit toward graduation.

For more information about modern languages and literatures at St. Lawrence University, please visit www.stlawu.edu/ml.

Requirements for Majors and Minors

French

French majors are strongly encouraged to spend a year, or at least a semester, studying in Rouen with the University's France Program. Students who participate in the program are required to have nine courses to fulfill requirements for the major; other majors must take ten courses.

Students in Rouen traditionally take four credits each semester. French is the language of all these courses, but courses in art history, economics, history, government may be counted for credit in their respective departments; students may take three credits per semester toward the French major. Participants who spend the year in France may earn five credits toward the major.

A French major consists of five electives at the 103-104 level or above, two electives at the 300 level or above and two electives at the 400 level; 300-level courses are offered only in France. Students who do not participate in the France program must thus take at least four courses at the 400 level.

A French minor consists of six courses at the 103-104 level or beyond. French minors are encouraged to spend a semester or a year on the France program. Students on the France program may count three courses (semester program) or five courses (year program) toward the French minor.

German

Students majoring in German are required to complete nine units starting with 101 or eight units starting with 103. Majors are expected to take at least one seminar (either 423, 424 or 432) and to participate in an international program either in Austria or Germany. Up to two

literature or culture courses per semester taken abroad and taught in German count toward the major. The office of international and intercultural studies will help students enroll in an appropriate program.

Spanish

The Spanish major is designed to provide an understanding of the principal aspects of Hispanic culture as well as proficiency in the language at the advanced level according to national American Council on the Teaching of Foreign Language guidelines. The Spanish major consists of 10 units beyond the 104 level. Students who begin Spanish at St. Lawrence at a level higher than 201, 202 are exempt from two major units. Spanish 323 and 344 are required for the major. Students who take Spanish 203 need only take eight additional courses.

Students wishing to major in Spanish are urged to participate in the Costa Rica (San José) or Spain program. It is possible to earn three credits toward the major during a semester in Spain or Costa Rica; students who remain a year in Spain may earn five credits toward the major.

A Spanish minor consists of six courses at the 201-202 level or above. Spanish minors are encouraged to spend a semester or a year on the Spain or Costa Rica programs. Students on the programs in Spain or Costa Rica may count three courses (semester program) or five courses (year program) toward the Spanish minor.

Multi-Language Major

To meet the requirements for the multi-language major students must have four credits in each of three different languages. (Students may not choose Kiswahili or Italian as one of the three languages for this major.) In one of these languages, designated the language of concentration, the student must complete at least four units beyond the 202 course. To improve skills in the language of concentration and to deepen cultural understanding, multi-language majors are expected to study abroad. Students who major in multi-language may minor in French or Spanish only when the minor language is not one of the three languages of their multi-language major.

Caribbean and Latin American Studies Minor

Students who take Spanish or French may want to consider the interdisciplinary minor in Caribbean and Latin American studies, which consists of six courses and includes an introductory core course (CLAS 104), as well as any upper-level research class (listed as a CLAS course). See the description under Caribbean and Latin American Studies in this *Catalog*.

International Programs

St. Lawrence study abroad opportunities in Costa Rica, France, Japan and Spain support the work of the department and are designed for students with significant background in the language. Students with strong German or Russian language skills may obtain information on study opportunities in Austria, Germany or Russia from the office of international and intercultural studies. Those with little or no prior knowledge of German can choose the St. Lawrence semester program in Vienna. Similarly, students with little or no Italian may choose the program in Florence. There is also a program in Kenya, and Russian language courses and field study are available through the Denmark program. For detailed descriptions, see the International and Intercultural Studies chapter of this *Catalog*.

Certification to Teach a Foreign Language

Students seeking initial certification as a 7-12 French, German or Spanish teacher in New York must major in the language and also complete the certification minor in education. French, German and Spanish majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the French, German or Spanish major and the pre-certification minor in education (or its equivalent) as undergraduates. Consult the education section of this Catalog and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Honors

Students who wish to be candidates for honors in the department should register for French, German or Spanish 497 (fall) or 498 (spring). A proposal for the honors project should be submitted to the department prior to the final examination period of the semester preceding the one in which the project is to be carried out. A grade point average of at least 3.5 in all major courses is required and a grade of 4.0 must be earned in the honors course for the student to be recommended for honors at graduation. The honors course carries one unit of academic credit and is taken in addition to the eight (German), nine or ten (French) or ten (Spanish) units that constitute the basic major. (See also Honors in the Curriculum chapter of this *Catalog*.)

Courses

French

101, 102. Elementary French.

This two-semester sequence provides an introduction to basic structures and develops skills in speaking, reading, writing and oral comprehension. In class and in the language laboratory, current materials from France and other French-speaking countries are used to familiarize students with aspects of language and contemporary culture. Open to students with little or no prior study of the French language.

103, 104. Intermediate French.

This two-semester sequence provides a review of basic structures and practice of the skills needed for communication in speaking and writing. The basic text and literary and cultural readings are supplemented by resources in the language laboratory. Designed for students with two or more years of high school French who wish to improve their grasp of basic skills and enlarge their working vocabulary. Prerequisite: French 101, 102 or the equivalent.

200. Advanced French: Contemporary France.

This course has a dual focus: linguistic and cultural. Students will spend only a small part of their time reviewing important grammar points, and more time on other areas of language such as vocabulary building, idiomatic usage, oral expression, and writing. The thematic focus of the course is contemporary France. Students will learn about the social and political institutions in France, and about current cultural practices. Films, radio, Web sites, cartoons, popular music, newspapers, and magazines will be employed to expand the study of French society and language. Students completing French 200 usually enroll in French 202 in the spring semester. Offered in fall semester.

202. Advanced French.

This course continues and expands the work of French 200. The material covered is theme-oriented, each section having a different theme. The course provides students with a level of proficiency in reading, writing, listening and speaking that will allow them to function well in upper-level courses or in a French environment. *Also offered through Canadian Studies.*

215, 216. Introduction to French Culture.

These courses are recommended for majors and other advanced students, especially those intending to study in France. They look at the principal elements of French culture in their historical context: literature, art, architecture, music and philosophy through major periods of development; the Middle Ages, Renaissance, Classicism, and Age of Enlightenment (in 215); Romanticism, Realism, Symbolism, Surrealism, and other important trends in the 20th century (in 216). Both oral reports and papers are assigned. Students need not take 215 to enroll in 216; 215 is offered in fall semester and 216 in the spring. *Also offered through European Studies.*

231. French Conversation Through Theatre and Film.

This course is intended to improve skills in speaking and oral comprehension through French theatre and film. The course will be conducted as a workshop. Students will read French plays and perform scenes from them. They will also write and stage scenes inspired by the plays and films. The class will learn the rudiments of video filming and editing, and will produce a short film as a project. The class will travel to Ottawa or Montreal to attend one of the plays studied. Designed for students who have completed French 200 or a higher-level course. Not open to students returning from study in France. Offered in fall semester.

232. Creative Writing.

This course is designed for students wishing to develop skills and a sense of style in written expression, especially in preparation for possible study in France. Students examine various literary and non-literary models of expression and write texts based on these and other subjects. Prerequisite: French 200 or the equivalent. Not open to students returning from study in France. Offered in spring semester.

402. Modern French Theatre.

Authors may include Claudel, Giraudoux, Anouilh, Sartre, Camus, Beckett, Ionesco and Genet. The nature of dramatic experience, the comparative importance of language and action and the theatre of images are emphasized.

403. Modern Prose Fiction in France.

This course examines the themes, techniques, and socio-political contexts of the 20th century novel. Choice of authors will vary from year to year, but have included Mauriac, Gide, Proust, Sartre, Camus, Malraux, Robbe-Grillet, Tournier, Modiano, Duras, and others. *Also offered through European Studies.*

404. French Film.

This course combines a historical view of the French cinema, an introduction to the techniques of film analysis and an examination of the major issues in film theory. Topics include the pioneers of cinema, the "classical" films of the 1930s and '40s, the films of the "nouvelle vague" in the '50s and '60s and recent trends in film production. The work of filmmakers such as Renoir, Clouzot, Truffaut, Beineix, Godard and Resnais will be studied. *Also offered through European Studies.*

405. Poetic Expression.

This course is concerned with the study of poetics and the development of the lyric tradition in France, including major periods of poetic expression from the Middle Ages to the 20th century: Villon, Ronsard, the Romantics, Baudelaire, the Symbolists, Apollinaire and Valery. *Also offered through European Studies.*

408. The Formation of the Novel in France.

This course examines the development of narrative prose in France from the Middle Ages through the 18th century. It will focus on the novel as commentary on the society and the time, as well as questions of ethics and aesthetics. Authors studied are Rabelais, Madame de LaFayette, Diderot, Marivaux, Prévost, Laclous, Voltaire.

410. Francophone Literature and Culture.

This course introduces students to the major works of French-speaking authors from diverse areas of the world and investigates the themes and motivations of this literary and cultural expression. Representative works from Africa are *L'Enfant Noir*, *Une Vie de Boy*, *Batouala*; from Canada *Maria Chapdelaine*, *Salut Galarneau*. Also offered through *Canadian Studies and Caribbean and Latin American Studies*.

413. The Theatre of the Classical Age.

This course studies selected plays of Corneille, Moliere, Racine, Marivaux, and Beaumarchais. It will examine dramatic theory and the characteristics of Classical and Baroque theatre, as well as the cultural milieu and arts in 17th and 18th century France. Also offered through *European Studies*.

417. Studies in the 19th-Century French Novel.

This course will focus on the novels in the major movements of 19th-century French literature: Romanticism, Realism, Naturalism. It will examine literary texts not only as works of art, but also in relation to the social and political contexts out of which they grew. Course content may vary from time to time, but emphasis is placed on Chateaubriand, Balzac, Stendhal, Flaubert and Zola. Also offered through *European Studies*.

425, 426. Seminar.

The topic changes and is announced prior to registration. Also offered through *European Studies*.

428. French Women Writers.

A study of major writers such as Mme de La Fayette, George Sand, Colette, Triolet, Duras, Sarraute. French feminist theory is also introduced. Also offered through *European Studies*.

489, 490. Independent Study.

For senior students specially qualified. Offered on demand.

497, 498. Honors Project.

See Honors in the introductory section on departmental curriculum.

Program Abroad in France.

See the Off-Campus Study section of this *Catalog*.

German**101, 102. Elementary German.**

Introduction to the speaking, understanding, reading and writing of German. The text series presents the language in the context of everyday life in modern Germany, including many situations a visitor to Germany might encounter. Class sessions plus laboratory. Open to students with little or no prior German.

103, 104. Intermediate German.

Further development of the four language skills through a thorough review of grammar, written and oral practice and the introduction of short literary texts by modern German authors. Off-the-air broadcasting, computer programs, videos, etc., enhance language learning. Class sessions plus laboratory. Prerequisite: German 101, 102 or the equivalent.

201. Advanced German.

Development of the students' ability to express themselves fluently and correctly in speaking and in writing. Reading, class discussions and compositions based on a variety of materials, including modern short stories, articles from current periodicals, films and audiotapes. Prerequisite: German 103, 104 or the equivalent.

202. Advanced German.

This course continues and expands the work of German 201. The material is organized around a theme, which may change each year. Typical themes might include Austria; World War II; short story, performance of a drama and a German radio play. Not open to students who have completed more advanced German courses. Prerequisite: German 201 or the equivalent.

217. 20th-Century German Literature.

Readings from authors such as Mann, Kafka, Hesse, Brecht, Boll, Grass. The course is designed to introduce students to German literature and culture through the study of a wide variety of well-known works. It also teaches the methods of analytical interpretation and critical evaluation of literature and its genres. Also offered through *European Studies*.

218. The New German Film.

The German film experienced a rebirth in the 1970s with a new generation of talented film directors, such as Schlöndorff, Herzog and Fassbinder. The course examines the films of the last 20 years with the aim to acquaint students with the methods of analyzing and interpreting this art form. This course also studies the relationship between the visual and literary arts by introducing some of the literary texts. In addition the films contribute to an understanding of German history and culture.

219. Vienna: Turn of the Century.

The mood in Vienna around 1900 has been described as "a nervous splendor." The centuries-old Habsburg Empire was rapidly approaching its end, undermined by the ethnic turmoil that would soon contribute to the outbreak of World War I. But in this atmosphere of impending change, there was a flourishing of art, architecture, music, literature, psychology and philosophy that made Vienna one of the birthplaces of Modernism. The course will examine the new developments in all these fields and the connections among them. Attention will also be given to the ways Vienna today still reflects the revolutionary patterns of thought that emerged there a century ago.

247. Special Topics.

These courses are designed to complement the regular course offerings for the German program with special themes. Examples are film and literature of World War II; the Holocaust; Berlin, witches, demons, heretics in German literature and culture. The topics are announced prior to registration. The courses generally have no prerequisites and are often taught in English. Also offered through *European Studies*.

316. Love, Sex and Marriage in German Literature.

This course offers readings from novels, plays and poetry through the centuries, which examine and portray the nature of the erotic. The course also examines the works as reflections of the moral values and customs of their time and society. Audiotapes and films supplement the readings.

335. Reality and Fantasy.

What is reality? If it consists only of those phenomena directly perceptible to the five senses, then to what realm do thought,

emotion, dream, hallucination and artistic creativity belong? Is the only alternative to "living in the real world" insanity, or is it possible to break through the limits of mundane reality into a higher world? German romanticists, realists, naturalists, expressionists and contemporary writers have answered these questions in differing ways. This course examines the works of such authors with special attention to their relevance to our worldview today.

337. The Individual and Society.

The individual in conflict with his or her society is an important subject in German literature, as in most other literatures. Some authors have taken the side of society, stressing the rebel's need to mature and to conform to the expectations of the community. Others have portrayed the rebel as a hero and his society (often a veiled image of the author's own) as worthy of rejection if not destruction. This course examines the variation in the treatment of this theme over time, as well as the varying attitudes toward society of Swiss, Austrian and German authors.

423, 424. Seminar.

Intensive study of a specific topic: an author, a literary movement or an individual work. The topic changes each semester and is announced prior to registration. Open to seniors and advanced students.

489, 490. Independent Study.

For especially qualified students with permission of the instructor.

497, 498. Honors Project.

See Honors in the introductory section on department curriculum.

Study in Austria.

See the international and intercultural studies section of this *Catalog*.

Italian

101, 102. Elementary Italian.

This two-semester sequence provides an introduction to basic structures and develops skills in speaking, reading, writing and oral comprehension. In class and in the language laboratory, current materials from Italy are used to familiarize students with aspects of language and contemporary culture. Open to students with little or no prior study of the Italian language.

Japanese

101, 102. Elementary Japanese.

An introductory course in Japanese for students with no prior background. Stress is placed on the spoken language, but reading and writing skills are also systematically studied. Audio and video materials are used in the language lab to supplement the main text and workbook and to acquaint the students with Japanese culture. This course is a prerequisite for all students who plan to participate in St. Lawrence's exchange programs in Japan.

103, 104. Intermediate Japanese.

This course provides further study of the basic four skills in Japanese—listening, speaking, reading and writing, to be supplemented by audiovisual materials in the lab. More *kanji* characters will be introduced. Prerequisite: Japanese 102 or the equivalent for 103; and Japanese 103 for 104. Placement of students who have studied Japanese elsewhere is made in consultation with the instructor.

489, 490. Independent Study.

Kiswahili

101, 102. Elementary Kiswahili.

The introductory course in Kiswahili enables students to speak and comprehend elementary Kiswahili. The cultural component highlights important aspects of the life and people of East Africa. Oral skills are stressed to help students practice usage while writing helps the students understand the language better. The course is open to any student who wants to study a foreign language, to those interested in African studies and to those who are interested in the Kenya semester program. Two weekly one-hour language labs provide additional oral practice and are also used for remedial work.

Russian

101, 102. Elementary Russian.

Introduction to the speaking, understanding, reading and writing of Russian. In class and in the language laboratory, films, Web sites and other current authentic materials are used to acquaint the student with everyday Russian and the contemporary culture. Russian 101 is prerequisite for 102.

103, 104. Intermediate Russian.

A continuation of the acquisition of basic skills begun in Russian 101, 102, but with more emphasis on conversation. In addition, students engage in special topics such as the geography of the country, the major cities and letter writing in Russian. In class and in the language laboratory, films, Web sites and other current authentic materials are used to acquaint the student with everyday Russian and contemporary culture. Russian 103 is prerequisite for 104. Prerequisite: Russian 102 or equivalent.

201, 202. Advanced Russian.

Advanced language study, plus a complete review of Russian grammar. The course includes practice in speaking, understanding, reading and writing Russian through the use of authentic Russian language materials, including film and the Internet. Russian 201 is prerequisite for 202. Prerequisite: Russian 104 or equivalent.

311, 312. Advanced Russian for International Study.

Advanced language study for students intending to travel or study in the former Soviet Union. Includes a survey of contemporary Russian culture, including literature, film and the Internet. Special attention is paid to vocabulary building. Permission of instructor required.

489, 490. Independent Study.

For seniors or for especially qualified students with permission of the instructor.

Spanish

101, 102. Elementary Spanish.

The principal goal is the acquisition of a basic level of communicative ability in Spanish. Video, film, audiotapes and the Internet provide current materials from Hispanic America, Spain and the United States Latino community to enhance language learning and knowledge of the culture. Language laboratory activities advance conversational skills and oral comprehension. Open to students with little or no prior study of the language.

103, 104. Intermediate Spanish.

Spoken and written Spanish are reinforced by a review of grammar and idiomatic strategies for self-expression. The course includes use of videos, music, literature, news broadcasts and the Internet as means for understanding the contemporary culture of Hispanic America and Spain. Materials in the language laboratory facilitate conversation and increased oral comprehension. Prerequisite: Spanish 101, 102 or equivalent.

201. Advanced Spanish.

Review and expansion of the four skills with emphasis on the oral and written expression of ideas in Spanish on topics of current interest and cultural significance in the Spanish-speaking world. Materials studied include journalistic texts, videos, audiotapes, songs and literary works. For students who have completed Spanish 103, 104 or who have four years or more of Spanish at the secondary level.

202. Hispanic Cultural Studies.

A language course with the aim of acquainting students with current Hispanic culture through the analysis of literary texts, films, advertisements and other materials drawn from Spain, Hispanic America and the Latino community in the United States. Includes a research project on a cultural topic.

203. Spanish for Spanish Speakers.

Designed for students who speak Spanish at home but have been educated primarily in English, this course enhances oral and written expression as well as reading comprehension. It includes extensive practice with the conventions of written Spanish and many activities designed to expand vocabulary. Course materials include literary and journalistic readings, films and videos selected to provide an understanding of the Spanish-speaking community in the United States, Hispanic America and Spain. This class is accepted in lieu of Spanish 201 for the Spanish major and for students who wish to study in Costa Rica or Spain.

211. Introduction to Latin American Cultures.

This course presents major topics related to history and culture in Latin America and includes an analysis of cultural pluralism in selected areas of the region. Representative documents in Spanish such as literary works, newspaper articles and videos are studied to illustrate changes in the social patterns of the culture and facilitate the enhancement of language skills. Not open to students who have completed a more advanced course. Taught in Spanish.

213. Introduction to the Cultures of Spain.

A study of the development of the cultures of Spain through history, art, music and literature. The course includes an analysis of Spanish cultural pluralism and its origins. Sources used include literary works, texts on aspects of Spanish culture and history, videos and film, examples of Spanish art and music and material drawn from the Internet. Not open to students who have completed a more advanced course. Taught in Spanish. *Also offered through European Studies.*

247, 248. Special Topics.

Designed for students who have completed Spanish 201, 202 but have not taken more advanced courses, special topics courses offer the opportunity to study specific topics in Hispanic culture. Examples include multiculturalism in the United States and Spain, Spanish language soap operas, representations of women in Spanish film and Latin America in film.

323. Introduction to Spanish Literature.

An overview of the literature of the Spanish people. Readings from the major periods, from the earliest literature to the present. Authors studied include Cervantes, Calderón, Federico García Lorca and Carmen Martín Gaité. The works are treated as representative, thematically and aesthetically, of their respective ages and the traditions of their genre. *Also offered through European Studies.*

339. Literature, Film and Popular Culture in Contemporary Spain.

After the Franco regime (1939–1975), Spaniards began to explore and question cultural, historical and sexual identity. This course examines post-totalitarian Spanish literature, arts and popular culture made possible by the political transition to democracy. The aim is to use the theoretic framework of cultural studies as a means of understanding contemporary Spanish culture. Materials analyzed include films, television programs and commercials, novels, short stories, magazines and popular songs.

341. Latinos in the United States.

This course introduces students to the sociohistorical, political, economic and cultural elements that shape the Latino identity in the United States. Drawing from the growing body of literature (poetry, fiction, testimonial narrative, theatre, critical essays) by various Latino/a writers, the course explores issues of “race,” immigration policy, class, education, language, religion, cultural identity and representation. The class is conducted in Spanish, although some readings are in English. Course materials also include videotapes, news, documentaries, music, etc.

344. Introduction to Hispanic American Literature.

Indigenous oral traditions and texts from the period prior to the arrival of the Europeans are examined as well as works from the colonial period to the present. Authors studied from the colonial period include Bernal Díaz del Castillo, Bartolomé de las Casas and Sor Juana Inés de la Cruz. Contemporary authors studied include Borges, García Márquez, Allende and Rigoberta Menchú.

345. Stylistics and Translation.

Stylistic study of the varieties of written Spanish based primarily on contemporary materials selected from literary texts, newspapers, magazines, government reports, etc. The course includes extensive translation and writing practice and a creative writing component. For students with considerable background including, preferably, residence in a Spanish-speaking country.

346. Oral Expression in Spanish.

Analysis of contemporary oral usage through the study of film, video and audio materials as well as printed texts. Includes advanced pronunciation practice and study of techniques of oral presentation. Assignments are designed to promote the development of persuasive skills and include formal debates on contemporary issues and other public speaking activities.

347, 348. Special Topics.

Designed for students at any level above Spanish 211, 213, these courses offer the opportunity to study specific topics in the Spanish language or Hispanic culture. Examples include Latinos in the United States; post-Franco Spanish society in film; Latin American women writers; the representation of the Amerindian in contemporary Hispanic American literature; the study of specific authors such as Pablo Neruda or Carmen Martín Gaité.

443. Contemporary Hispanic American Literature. A study of 20th-century literature in Hispanic America as well as in the United States from diverse genres that include poetry, prose fiction, theatre and testimonial works. Authors read usually include Rubén Darío, Gabriel García Márquez, Pablo Neruda, Rosario Ferré and Gloria Anzaldúa, among others.

489, 490. Independent Study.

497, 498. Honors Project.

Working closely with a faculty member, the student develops a project related to Spanish-language literature or culture. Projects may include translations from Spanish to English and they may be interdisciplinary. Students are encouraged to use a variety of media in their projects and, if they participate in a St. Lawrence program in Costa Rica or Spain, to relate their projects to that experience. For additional information, see the description of Honors in the introductory section of the departmental curriculum.

International Program in Spain

The following Spanish courses are offered in the program. Courses are also available in economics, government, fine arts and environmental studies. Other fields are available by special arrangement.

Fall

195S. Advanced Practical Spanish.

A one-half unit course emphasizing spoken and written Spanish skills. The course is designed to help students achieve and maintain the linguistic skills needed for the program's other courses and for personal and professional activities. Required for program participants.

323S. Introduction to Spanish Literature.

See description above.

335S. The Spanish Village.

Through readings, interviews and detailed personal observation, students investigate the economic, political and social structure of rural Spain. Includes residence in a village and seminars in Segovia. Required for fall semester program participants.

358S. The Madrid Stage.

A study of the contemporary theatre in Spain with a focus on the current season through readings, interviews, discussions and weekly theatre attendance.

Spring

196S. Advanced Practical Spanish.

Continuation of Spanish 195S. One-half unit. Required for program participants.

338S. Introduction to Spain.

An introduction to Spain for students who join the program in the second semester. During the first two weeks of the month-long program, students live in small cities in La Mancha, where they investigate the economic, political and social structure of the area through readings, interviews and detailed personal observation. The second two weeks are spent in Madrid with daily language classes and sessions on Spanish art, culture and government.

344S. Introduction to Hispanic American Literature. See description above.

442S. Spanish Novel of the 20th Century.

An investigation of narrative prose from the Generation of '98 (Unamuno) to the present (Cela, Martín Gaité, Llamazares) as representative of the principal aesthetic and historical movements of the century.

For additional information on the program, see the International and Intercultural Studies chapter of this *Catalog*. Program brochures are available in the office of international and intercultural education.

Literature in (English) Translation

101. Introduction to Russian Literature.

An introduction to the works of major 19th- and 20th-century Russian writers (Pushkin, Gogol, Dostoevsky, Tolstoy, Gorky, Solzhenitsyn and others), including a discussion of how Russian literature is translated into other languages and other media, such as film, music and art. The Web site for the course offers supplemental materials on each of the writers studied. Fulfills humanities distribution requirement.

218. The New German Film.

The German film experienced a rebirth in the 1970s with a new generation of talented film directors, such as Schlöndorff, Herzog and Fassbinder. This course examines the films of the last 20 years with the aim to acquaint students with the methods of analyzing and interpreting this art form. It also studies the relationship between the visual and literary arts by introducing some of the literary texts. In addition the films contribute to an understanding of German history and culture. *Also offered as German 218.*

219. Vienna: Turn of the Century.

See German 219. Texts will be in English translation. No prerequisites. Especially recommended for students interested in future participation in the St. Lawrence semester program in Vienna. *Also offered as German 219.*

224. Modern Japanese Literature and Film.

An introduction to modern Japanese literature from the late 19th century to the present in English translation. Representative novels, short stories, plays and essays by such major writers as Ogai, Soseki, Akutagawa, Tanizaki, Kawabata, Mishima and Abe are studied with the use of films by Kurosawa, Ozu, Toyoda, Teshigahara, etc. Special attention will be paid to Western influences on the evolution of modern Japanese literature and film. Fulfills non-Western distribution requirements.

226. Introduction to Japanese Drama.

A study of Japanese drama in its historical, theatrical and literary aspects from the Classical Theatres of Noh, Kabuki and Bunraku to the modern New Theater and avant-garde experiments. The growth and characteristics of each theatre are examined as a living tradition in the broad cultural context of Asia, Japan and the West, with the use of films. Readings are in English. Fulfills non-Western distribution requirements. *Also offered as Speech and Theatre 226.*

315. Dostoevsky and Tolstoy.

This course examines the development of these two great Russian writers. Their major literary works (*Crime and Punishment*, *The Brothers Karamazov*, *Anna Karenina*, etc.) are studied and related to the times, then and now. Excerpts from film adaptations are reviewed for fuller understanding of these master works. The Web site for the course offers supplemental materials, including virtual tours of places associated with these authors and their works. Readings are in English. *Also offered through European Studies.*

321. Greek Theatre and Drama.

An introduction to the theatre of ancient Greece and to the plays of Aeschylus, Sophocles, Euripides and Aristophanes. Prerequisites: Speech and Theatre 125 or 215, English 110 or 190 or permission of instructor. *Also offered as Speech and Theatre 321 and through European Studies.*

335. Modern Continental Drama.

This course traces the rise of dramatic realism from its beginnings in Germany during the Enlightenment through the liberation of the Parisian theatres after the French Revolution and including the experiments by various authors in several genres that led up to the flowering of realist drama in the major plays of Norwegian dramatist Henrik Ibsen. The purpose of the course is to arrive at an understanding of what constitutes realism in drama, considered as a convention. Along the way, the class reads plays by Goethe, Buchneer, Kleist, Hebbel, Hugo, Ibsen, Strindberg, Chekhov and Shaw. Prerequisite: Speech and Theatre 125 or 215, English 190 or permission of instructor. *Also offered as Speech and Theatre 335.*

377, 378. Special Studies in Literature.

The content of each course or section of the course is different and is announced in the *Class Schedule* each semester. Readings are in English.

489, 490. Independent Study.

For seniors or especially qualified students with permission of instructor.

Modern Language**289, 290. Special Studies.**

Work in languages not regularly included in departmental offerings.

Music

Major and minor offered

Professor Hessert; **Associate Professor Farley** (chair); **Assistant Professors Henderson** (visiting), **Sutherland** (visiting); **Director of Music Ensembles Torres**.

In keeping with the aims of a liberal education, the music department offers all students opportunities to expand their understanding of music and its place in society. Students actively engage diverse musical materials in a variety of

contexts. In ensembles and private lessons, students mature as singers or instrumentalists, better understanding music by performing it. In courses, students develop critical skills for experiencing, creating and using music effectively and intelligently. The department offers both a major and a minor in music, and provides all students with ways of participating in music, ranging from hands-on instruction in the Arts Technology Lab to the in-depth study of musics from around the world in the classroom.

Music 100 (Introduction to Music) provides a comprehensive framework for learning the materials and structure of music and for developing individual listening skills. Courses at the 200 level seek to place music in broader intellectual contexts, putting music in dialogue with areas of study such as art, theatre, sociology or technology. At the 300 level, courses focus on further developing a student's abilities in composition, performance, literature or analysis.

Many music classes include work in the Arts Technology Lab, where students learn to use digital technology to compose and perform music, create music for theatrical productions and produce multimedia presentations.

Music department ensembles – the Laurentian Singers, the University Chorus, the Special Productions Ensemble and the Early Music Ensemble – are open to all St. Lawrence students by audition.

Major Requirements

Students wishing to major in music must complete the following requirements:

- 100 or 101. Introduction to Music.
- Two 200-level music courses.
- Two 300-level music courses.
- At least three other courses in music.
- At least two semesters of participation in a music department ensemble.

Minor Requirements

Students wishing to minor in music must complete the following requirements:

- 100 or 101. Introduction to Music.
- One 200-level music courses.
- One 300-level music courses.
- At least two other courses in music.
- At least two semesters of participation in a music department ensemble.

Ensembles

Students register for either no credit or .25 units.

021A/121A. Laurentian Singers.

A select undergraduate vocal ensemble that performs both on and off campus through the year. Their far-ranging repertoire is drawn from traditional choral sources as well as world and popular idioms. Recent programs have included chants of Hildegard, music from Kenya, songs of Carole King and works of Randall Thompson, to name a few. The Laurentian Singers tour each spring. Membership by audition.

021B/121B University Chorus.

A choir open to the entire University community. The ensemble performs major works from the choral and choral-orchestral repertoire from the 16th through the 20th centuries. Membership by audition.

Early Music Ensembles

024A/124A Early Music Players.

024B/124B Early Music Singers.

Two ensembles together make up the Early Music Ensemble, which performs music from the medieval, Renaissance and Baroque eras with special attention to historical practices. The Players use period instruments from the University's Romer Collection. The Singers prepare music from critical editions in both Latin and vernacular languages. They rehearse in the authentic-style acoustic of Gunnison Chapel. Recent programs include *España* and *Music from the Courts of Henry VIII and Elizabeth I*.

028/128. Special Productions Ensemble.

Each semester the Special Productions Ensemble explores a different instrumental repertoire. In a recent project concerning music after the Civil War, the ensemble performed rags, marches and parlor music. Conceived as a multimedia event, the presentation included digital projections and readings of "letters from the battlefield." Earlier projects included a tango party, Irish pub music and "Music for the King's Chamber." Membership by audition.

Individual Lessons

St. Lawrence students may elect to take individual lessons in voice or on an instrument, space permitting, for a fee of \$150 per semester. Students enrolled in the following courses are exempt from the fee: Music 100 (Introduction to Music), 147 (Beyond the Basics) and 349 (Preparing Music for Performance). Continuing members of music department ensembles (Laurentian Singers, Special Productions Ensemble, Early Music Ensemble or University

Chorus) are eligible to take individual instruction with no additional fee, as space permits.

Courses

100. Introduction to Music. (101 with private lessons)

An introduction to the study of music, this course includes the development of listening skills as well as an overview of the basic materials and techniques of musical organization. The music to be studied is chosen from a wide range of times and places. Students use the resources of the St. Lawrence arts library and the arts technology lab for listening, research and composition. As a complement to class work, students attend concerts and recitals on campus, at the nearby Crane School of Music (SUNY Potsdam) and at Ottawa's National Arts Centre. The course does not require previous music study. *Qualified students may enroll in Music 101, which includes individual lessons in voice or on an instrument.*

200-Level Courses

Each semester the music department offers courses with an interdisciplinary or intercultural focus, such as *Musics of the World*, *Music and Technology*, *Music and Art*, etc. The principal focus of these courses is to provide greater breadth in the student's understanding of music. Most 200-level courses include a research/writing component. See the *Class Schedule* for the current semester's offerings.

202. Sound for the Stage.

This course will explore some of the artistic and practical aspects of using sound in support of theatrical productions. The course will employ concepts of design drawn from the theatre and apply those concepts to the choice music and sound effects for the stage. It will explore the potential of sound and music for the reinforcement of dramatic content and production design concepts. In addition, the course will introduce the student to the production organization common to most theatre productions: the collaborative design process and the team approach to production assignments. The course's practical assignments will provide support for the production needs of the departments of music and speech and theatre and will include the use of audio equipment and software programs for the recording, editing and playback of sound. *Also offered as Speech and Theatre 202A.*

240. Musics of the World.

This course explores selected musics from Asia, the Pacific, Africa, Europe, and the Americas, using recordings, films and readings. Broad topics for investigation include the development of popular musical styles, the preservation of traditional musical styles, and the circulation of indigenous sounds in the world music market. Through reading ethnographies of music and discussing aesthetic and poetic dimensions of musical style, we seek to understand music both as a sound experience and as a social practice. *Also offered through African Studies, Caribbean and Latin American Studies and Cultural Encounters.*

250. Cultural Encounters in the Americas:

The U.S. and Puerto Rico.

An examination of popular music in the U.S. and Puerto Rico reveals the bitter conflicts and enormously successful syntheses that resulted from the clash of three cultures—Spain's, the rest of Western Europe's and West Africa's—in the Americas. As a part of this study, we will carefully consider the methodology that we use to analyze other cultures and historical periods. For example, how do we draw meaning from music that is not our own? How could we go about tracing aspects of other cultures in the music of the Americas? Is it possible, or desirable, to avoid predispositions as we attempt to understand the politics of another period or culture? We will focus upon the Reconstruction Period (ca. 1865) and the Great Depression (ca. 1929) in the U.S., and the past 40 years in Puerto Rico. A research project will require students to examine a culture through a study of its music, its economics and its political pressures. *Also offered as Government 250 and through Cultural Encounters.*

300-Level Courses

Level three consists of courses in musical composition, performance, literature and analysis. The principal focus of these courses is to provide greater depth in the student's understanding of music. See the *Class Schedule* for the current semester's offerings.

341. Music in Venice.

Music in Venice will focus on the musical and artistic vitality of a city that has fascinated visitors for centuries. The course will feature two composers—Claudio Monteverdi and Antonio Vivaldi—whose lives and works straddle opposite ends of the 150-year span musicians call the Baroque period. Beginning with the detailed examination of four works—Monteverdi's *Vespers* of 1610 and *L'Incoronazione di Poppea*, plus Vivaldi's *Gloria* and the *Four Seasons*—the course will continue with a wider survey of Venetian composers and their works, plus the works of non-resident composers who have particular associations with the city. In support of their study of musical literature, students will view works of art from Renaissance Italy and undertake readings about the special role of Venice in medieval and Renaissance Europe. *The course will include a 10-day travel option at the end of the semester for students who want to visit Venice.* Prerequisite: Music 100 or 101 or a 200-level course in music.

342. New Orleans Music and Society.

This course investigates the development and influence of selected music cultures within the life of the city. These cultures include American art music of the nineteenth century, New Orleans jazz (ca. 1900–1917) and New Orleans rhythm and blues (ca. 1947–65). Particular attention will be given to the music and milieu of Louis Moreau Gottschalk (1829–1869), Louis Armstrong (1900–1971) and to the system of recording and promotion that gave rise to a thriving rock and roll industry in New Orleans. In examining these music cultures the complex interaction of cultures that is the source of New Orleans' charm and success becomes evident. At the same time, students will have the opportunity to deepen their understanding of musical terminology, analysis and research methods. *This course includes an option to spend six days in New Orleans at the conclusion of the*

semester. Prerequisite: Music 240. *Also offered through Cultural Encounters.*

343. Avant-garde and Underground Music.

This course covers music that has been considered to be experimental, radical or transgressive in classical music, jazz and rock. We strive to understand both how social issues shaped musical styles and how musical styles shaped social issues. Through surveying European and American perspectives on the relations between the arts and society in the 19th and 20th centuries, we work toward understanding the ideologies that have motivated composers and performers to locate their styles and practices outside of an imagined mainstream. In studying influential musical works from the last two centuries, we seek to clarify how musicians have put their ideologies into musical practice. Areas for exploration include the work of the Italian futurists, the musique concrète of Edgar Varèse, Ornette Coleman's *The Shape of Jazz to Come*, the happenings of the 1960s, early punk, Japanese noise bands, John Zorn's projects and electronica from the 1990s. Prerequisite: Music 100, 101, 240 or permission of the instructor.

346. Mozart and the Classical Tradition.

A survey of the developments in Western vocal and instrumental art music during the years 1750 through 1825, with particular emphasis on the life and artistic contributions of Wolfgang Amadeus Mozart. The course seeks to establish ties between contemporary European society and the art it cultivated. Prerequisite: Music 100 or 101 or a 200-level course in music. *Also offered through European Studies.*

348. Composition: Text and Sound.

The fundamental activity in this course is observation. Having arrived at a formative idea for a composition by means of a close analysis of a generative text or a sound, we begin describing that idea by any of several means (e.g., a "score," a performance, a sound generator), and making sense of the idea in sound. Nonetheless, the fundamental activity involved in each part of the compositional process is ongoing, close observation. Students explore the act of observation in two larger-scale compositions. Prerequisite: Music 100 or 101.

349. Preparing Music for Performance.

Satisfying performances are the product of a thorough understanding of one's music and a series of effective practice sessions. Our concentration is on analysis, the rehearsal process and preparing to meet an audience. A weekly, individual lesson will focus on the skills appropriate to your instrument or voice. Our class meetings will concentrate on: (1) analysis of musical motion, a product of many aspects of the music (e.g., melody, harmony, meter); (2) analysis of texture, dynamics and orchestration; (3) reading and interpreting music, with particular emphasis on reading rhythms and creating effective musical phrases; (4) organizing practice sessions and rehearsals. Prerequisite: Music 100 or 101.

470, 471. Advanced Projects in Music.

Independent research in an area of musical study under the guidance of a member of the music faculty. Students requesting an individual project in music must submit a written proposal to the department chair no later than November 15 (for projects to be undertaken in the spring semester) or April 15 (for projects to be undertaken in the fall semester). Prerequisites: Music 100 and a 300-level course in music.

Native American Studies

Minor offered

Advisory Board: Professors Perry (anthropology), Ward (English), Cornwell (philosophy), Jockel (Canadian studies); **Associate Professors** Hill (speech and theatre), Nyamweru (co-coordinator; anthropology), Thornton (global Studies); **Assistant Professors** MacWilliams (religious studies), Parmenter (co-coordinator; history), Ramirez-Sosa (biology).

The Native American studies program integrates course work from several fields into an interdisciplinary course of study to enable students to examine the histories, cultures and contemporary issues affecting the indigenous peoples of the Americas. Courses focus on pre-contact civilizations and historic societies, Native cosmologies, belief systems, social organization, art, literature and education. In several courses, the struggle for survival of Native cultures after contact confronts students with a range of issues from political/legal status, treaty rights, demography, land and fishing rights, self-governance, identity politics, resource development and contamination.

Minor Requirements

The Native American studies minor consists of six courses. Students must complete the two "foundation" courses, Anthropology 229 (Native American Cultures: North America) and History 229 (Introduction to Native American History). They must also complete a 300- or 400-level course or an approved independent project. Three other courses must be selected from the courses listed with the Native American studies program. Students are advised to contact the program coordinators for the most up-to-date information on course offerings and program requirements.

Courses

Students should check the *Class Schedule* each semester under both Native American studies and the relevant departments for course offerings.

Departmental Offerings

Anthropology

- 229. Native American Cultures: North America.
- 255. Environmental Perception and Indigenous Knowledge.
- 330. Native Cultures of Canada.
- 447.448. Topical Seminars: Apache Studies.

Biology

- 258. Ethnobiology.
- 380. Tropical Ecology.

English

- 263. Native American Fiction.

Government

- 270. Special Topics in American Politics: Native American Government.
- 273. Special Topics in Comparative Politics: Native American Government and Public Policy.

History

- 229. Introduction to Native American History.
- 330. New World Encounters, 1500-1800.
- 350. Native Peoples of the Northeast, Contact to Casinos.
- 351. Iroquois History.

Religious Studies

- 212. Native American Religion.

Speech and Theatre

- 322. Native American Oral Traditions.

In conjunction with the Native American Student Organization and the Native student residence, Sacred Circle, the program sponsors films, guest speakers and social events throughout the academic year.

Neuroscience

Major offered

Visit <http://it.stlawu.edu/~biology/neurosci.html> or link via the biology (<http://it.stlawu.edu/~biology>) or psychology department (<http://it.stlawu.edu/~psyc>) Web pages for information on this interdisciplinary major.

The departments of biology and psychology have collaborated to implement a new dual-track major in neuroscience. There are many areas of common interest and study at the interface of these two disciplines. Students may

elect a *cellular track* or a *behavioral/organismal track* as described below. Both tracks are designed to give students preparation for graduate study in a variety of neuroscience subdisciplines as well as preparation for entry into health professions. It is imperative that first-year students seek early advisement from a biology or psychology faculty member; they should also begin the introductory courses in each department during the first year.

See the respective department listings for course descriptions.

Courses

Core Courses (required by both tracks)

Biology

101, 102. General Biology.	3 units
247. Special Topics in Neuroscience.	1 units
348. Special Topics in Neuroscience.	1 units

Chemistry

103, 104. General Chemistry.	2.5 units
221. Organic Chemistry.	1.25 units

Psychology

100 or 101. Introductory Psychology.	1 unit
205. Research Methods in Psychology.	1 unit
Senior Research in Neuroscience	<u>1.2 units</u>
Total	11.75 - 12.75 units

Cellular Neuroscience Track

Biology

326. Animal Physiology.

Plus two courses from:

Biology

250. Introduction to Cell Biology.
386. Advanced Animal Physiology.
390, 391, 392. Research Methods in Electron Microscopy.

Chemistry

309. Biochemistry.
415. Advanced Biochemistry.

Behavioral/Organismal Track

Any four courses from:

Biology

326. Animal Physiology.
386. Advanced Animal Physiology.

Psychology

326. Hormones and Behavior.
327. Sensation and Perception.
331. Physiological Psychology.
401. Fundamentals of Learning.
432. Animal Behavior.

In the *behavioral/organismal track*, at least two of the four required elective courses must be taken with a laboratory component. The elective biology courses included in this track all have mandatory labs and may satisfy this requirement. The five psychology elective courses may be taken with or without a lab component.

A year of physics (Physics 103-104 or 151-152) and the second semester of organic chemistry (Chemistry 222) are highly recommended, especially for those who intend to pursue graduate study in neuroscience.

Note that students majoring in neuroscience may *not* also receive minors in either biology or psychology.

Advanced Standing

Students scoring a 4 or 5 on the AP biology test must enroll in the first semester of Biology 101 (General Biology) for which they will receive the normal 1.5 units of credit toward the neuroscience major. Students who do well in this course will be permitted to bypass the spring biology course (Biology 102) and they will be given the course credit toward the major. This requires approval of the general biology course instructors, who will use multiple criteria to determine whether or not the AP student should take the spring course. The AP score of 4 or 5 will automatically nominate the student for this option, but the student may also volunteer to forgo it.

Students who have taken Advanced Placement psychology and received a grade of 4 or 5 on the advanced test are eligible to receive 1 unit of credit for Psychology 100.

Academic planning forms are available on the neuroscience Web page at <http://it.stlawu.edu/~biology/NEUROplan.pdf>.

Outdoor Studies

Minor offered

Associate Professors McKnight (coordinator; biology).

The outdoor studies minor is designed to enrich students' understanding and appreciation of nature with a significant emphasis on experience in the outdoors. Through observation and ecological study, it seeks to stimulate contemplative introspection concerning the psychological, social and spiritual effects on humans of intimate contact with nature.

As these goals suggest, outdoor studies is a multidisciplinary approach to the study of nature, one that brings together scientific inquiry, physical exercise, moral analysis, self-reflection and literary and artistic representation. These goals will be met through activities both inside and outside the classroom that have a strong experiential component. Minors will need to learn basic outdoor skills such as first aid and orienteering, but the minor is not aimed at producing qualified guides.

Minor Requirements

To complete a minor in outdoor studies, students may choose between two tracks, the on-campus track or the intensive off-campus track. Both tracks require the acquisition of certain elementary outdoor skills.

On-Campus Track

1. Core course (see description below).
2. One field course emphasizing scientific observation. Current courses include:

Biology

- 121. The Natural World.
- 204. Marine Biology.
- 207. Freshwater Biology.
- 209. Vertebrate Natural History.
- 215. Invertebrate Biology.
- 221. General Ecology*.
- 225. Mycology.
- 227. Mammology.
- 380. Tropical Ecology*.

**Dual-listed with Environmental Studies.*

Geology

- 120,121. Roadsides and Rivercuts. (summer)
- 401. Structural Geology.

3. Two courses emphasizing environmental philosophy or literature, one with a component emphasizing writing. Current courses include:

English

- 243. Creative Non-Fiction Writing.+
- 295. Nature and Environmental Writing.
- 308. Advanced Creative Non-Fiction Writing.+
- 328. English Romanticism.
- 346. American Literature and the Environment*.
- 352. Contemporary Literature and the Environment*.

**Dual-listed with Environmental Studies.*

+Only sections including experiences in nature satisfy this requirement.

Environmental Studies

- 310. Philosophy and the Environment*.
 - 335. Foundation of Environmental Thought.
- *Dual-listed with Philosophy.*

4. Two elective courses in which the outdoors or nature is a central concern. Current courses include:

FYP Outdoor Colleges

FYP Environmental Colleges

Biology

- 121. The Natural World.
- 204. Marine Biology.
- 207. Freshwater Biology.
- 209. Vertebrate Natural History.
- 215. Invertebrate Biology.
- 221. General Ecology*.
- 225. Mycology.
- 227. Mammology.
- 380. Tropical Ecology*.

**Dual-listed with Environmental Studies.*

English

- 243. Creative Non-Fiction Writing.+
- 295. Nature and Environmental Writing.
- 308. Advanced Creative Non-Fiction Writing.+
- 328. English Romanticism.
- 346. American Literature and the Environment*.
- 352. Contemporary Literature and the Environment.+

**Dual-listed with Environmental Studies.*

+Only sections including experiences in nature satisfy this requirement.

Environmental Studies

283. Environmental Values in the Natural Setting.

310. Philosophy and the Environment.*

318. Environmental Psychology.**

335. Foundation of Environmental Thought.

*Dual-listed with *Philosophy*.

**Dual-listed with *Psychology*.

Geology

120,121. Roadsides and Rivercuts.

401. Structural Geology.

Intensive Off-Campus Track

1. Four and a half units taken during the Adirondack Semester.
2. One elective from the scientific observation or environmental philosophy or literature categories as described above.

Courses

100. Outdoor Studies Core Course.

This course is a multidisciplinary introduction to the study of nature and human relationships to nature. It brings together scientific inquiry, ethical analysis, self reflection, literary and artistic representation, history and direct experience with a particular place near the St. Lawrence University campus. We will examine questions such as: What is my conception of the natural world? How does the natural world work in this place? What is my responsibility to this place? What is the history of this place? How do I express my feelings toward this place? How does the media influence my answers to these questions? To link experience in the outdoors with academic inquiry, laboratory exercises will include animal tracking, plant identification, emergency procedures, weather forecasting, visits to historical sites, training in selected outdoor skills and creative expression. Students with diverse levels of experience in the outdoors are welcome. Previously developed outdoor skills are not required, but an adventurous spirit is.

201. Natural History of the Adirondacks.

This field-oriented course emphasizes the natural history, ecology, geology, geography and climate of the Adirondacks. Primary emphasis is on the taxonomy, life histories, local adaptations and uses of Adirondack flora and fauna. Basic ecological concepts such as succession, competition, energy flow, food webs and nutrient cycles are studied by means of field trips and field studies. Study will also be made of stars, seasons and the movement of principle parts of the solar system as they apply to the Adirondacks. Students will learn how to record observational data as well as how to conduct an experiment.

202. Creative Expressions of Nature.

The purpose of this course is to foster a deeper understanding of the affective and emotive qualities of person-nature interactions. This course places particular emphasis on the more contemplative and inspirational qualities of intimate contact with nature. The goal of the course is not to produce expert and accomplished artists, but rather to provide students with an opportunity to

explore their own personal connection to the natural world and to express creatively this person-nature connection through a variety of artistic forms. Throughout the semester students will experiment with various modes of creative expression, focusing primarily on the following artistic media: papermaking, book-binding and journal art, Zen observation and nature sketching, creative writing, found object constructions, storytelling and spoken word. Through hands-on creative workshops, studio visits, field trips and a series of focused readings and writing exercises, students will be encouraged to slow down, observe, reflect and embrace the personal connection that they have to the natural world.

Philosophy

Major and minor offered

Professor Cornwell (chair); **Associate Professor** Johnson, **Assistant Professors** McCarthy (visiting), Rediehs.

Philosophy deals with a range of fundamental questions. How are individual and community related? How should humans interact with the natural world? How should a person live? Generally speaking, what kinds of things can be known and what things are just matters of opinion? The methods philosophers employ in addressing such questions include careful analysis of existing opinions and their implications, free speculation about possibilities of all sorts and rigorous critical reasoning to choose between theories.

The activity of philosophy is vital to liberal education. Since a primary purpose of liberal education is the development of a person, philosophical reflection on the nature and purpose of a good life is an essential component. Furthermore, when we attempt to answer some of the important questions that fall outside the special sciences, we engage in philosophy.

If we ask, for example, how the sciences obtain reliable knowledge, or whether there are meaningful questions that the sciences cannot answer, we engage in philosophical thought. We engage in philosophy when we ask about the implications of scientific knowledge for our common sense understanding of the world—when we ask, for example, how our belief in individual freedom and responsibility can be reconciled with the scientific presumption of

determinism. Thus it is through philosophy that a student synthesizes the many facets of life and education into a personal whole. Finally, the methods of philosophy—questioning of common assumptions, analysis of ideas and theories, free speculation combined with the reasoned criticism—develop abilities that are themselves among the chief aims of liberal education.

The philosophy department program is not primarily intended to develop professional philosophers, but to serve as the focus for liberal education. Although some majors go on to distinguished graduate schools, most make use of their philosophical training in other pursuits. We believe that a student becomes liberally educated not primarily by the accretion of information, but by grappling with fundamental questions about life and learning. Philosophy has a rich history of alternative answers to these questions, and we believe that by understanding these varied answers students are better able to formulate their own philosophies. Our curriculum aims at progressive development of mind and character by increasing students' awareness of questions fundamental to a thoughtful life, and by developing the capacity for free, creative, critical thought and action.

Major Requirements

Department courses fall into three main groups (delineated in Courses, below). In general, a student is advised to take courses within each group in sequence, e.g., 100-level courses provide excellent foundations for 203 and 204, and Philosophy 202 is a good preparation for 302. Within levels there is no recommended sequence. There is, for instance, no reason to take Philosophy 203 before 210 or 301 before 331.

A major in philosophy consists of eight courses, including the following: Philosophy 203 (Ethical Theory) and at least one other course in the area of ethics, politics and aesthetics; Philosophy 204 (Theories of Knowledge and Reality) and at least one other course in the area of metaphysics, epistemology and philosophy of language; Philosophy 202 (Reasoning) and at least one other course in the area of logic, rhetoric and dialectic.

Minor Requirements

A minor in philosophy consists of five to seven courses including 110, 202 and 204.

Honors

To receive honors in philosophy, a student must satisfy the requirements for the major. In addition, he or she must have a 3.5 grade point average in the department and complete a departmentally approved honors project (Philosophy 401 or 402).

Courses

For purposes of the major and minor, each course in the department is classified into one of three areas indicated by a Roman numeral I, II or III. The three areas are:

- I. *Ethics, Politics and Aesthetics*: Philosophical inquiry into the making and justifying of judgments of value.
- II. *Metaphysics, Epistemology and Philosophy of Language*: Philosophical inquiry into the nature of reality and how we know it.
- III. *Logic, Rhetoric and Dialectic*: Philosophical inquiry into forms of reasoning and argument to develop in students those skills essential to rigorous thinking.

100. Introduction to Philosophy.

A non-historical survey that approaches the field through consideration of such perennial problems as ultimate reality, free will, knowledge, morality, political obligation and the existence of God. This course is open to students without previous work in philosophy. *Also offered through European Studies.*

101. Science: Questions, Methods, Reflections

This course is a thematic introduction to philosophy; its primary purpose is to help students reflect on the nature of scientific knowledge and to evaluate the status of science in our society. We live in a strange time in the history of science and technology: at the same time technology is advancing rapidly and there is increasing suspicion that science is not as "objective" as it has been made out to be, that indeed science is to blame for many of our most pressing problems. Students will have the opportunity to learn about the ideals of scientific methodology and read recent critiques of science. Is scientific knowledge true or is it socially constructed? Has science been biased by the historical fact that most scientists have been men? Would science change if more scientists were women? At the end of the course we will consider whether there is a new picture of science emerging in response to these critiques and, if so, what the implications are for the relationship between science and society.

102. Philosophy of Nature.

This course is a thematic introduction to philosophy, and its primary purpose is to engage students in critical reflection about nature. The approach of the course is comparative metaphysics, which means that students will study how different cultures understand nature and humans' place in or relationship to it. Specifically, this course will compare the history of Western thought about humans and nature, beginning with the Bible and ending with recent movements in environmental thought and philosophies of specific Native American traditions.

103. Philosophy East and West: An Introduction.

This course is a thematic introduction to some major themes and thinkers in the discipline of philosophy. The course takes a comparative approach, looking at philosophy not only of the Western tradition, but also of the Eastern tradition. Themes the course explores include the idea of a "good life," ethics and the self. Students will be able to identify these themes and also compare the approaches of different philosophers and traditions. Through close reading of primary texts, we will critically explore both the commonalities and differences across the traditions. Students will learn how to critically analyze difficult philosophical texts and arguments, develop writing skills and learn how to ask and answer questions in a philosophical manner.

202. III. Reasoning.

An introductory study of the principles, elements, methods and ideals of reasoning. Topics may include the laws of thought, the techniques of scientific inquiry and proof, the construction of symbolic systems and the problems of sound argumentation and effective communication. The primary aim of the course is to develop the liberal art of critical thinking.

203. I. Ethical Theory.

This course provides a historical introduction to ethical theory, drawing on texts from the Greeks to the present. What is the nature of moral obligation? What character traits are human virtues and vices? How do we discern goodness and evil? How do we justify ethical judgments of any kind? This is an appropriate selection for students with some previous experience in philosophy and provides an important background for further study in philosophy or other disciplines. Prerequisite: Philosophy 100 or 110 or permission of instructor. *Also offered through Cultural Encounters and European Studies.*

204. II. Theories of Knowledge and Reality.

This course provides a historical introduction to theories of knowledge and reality from the Greeks to moderns. What is knowledge? What is it possible to know? How is knowledge obtained? What must the world be like for knowledge to be possible? What do we know about the world? Contemporary thinking about these questions is illuminated by showing its relation to previous theories; students are invited to consider these and related questions for themselves. This course is an appropriate selection for the student with some previous experience in philosophy, and will give a good background for other courses in the major and other disciplines. Prerequisite: Philosophy 100 or 110 or the equivalent.

206. I. Introduction to Political Theory.

Also offered as Government 206 and through European Studies.

223. Asian Philosophy.

This course is aimed at introducing students to some of the major thinkers and themes of the philosophies of India, China and Japan. Two major themes will be brought out throughout the course: self and ethics. Students will be able to recognize these philosophical themes and begin to their development and compare them across the traditions. These traditions require us to think in a different framework from that of the Western tradition, for instance, we might say that whereas the East emphasizes the ethical, the West stresses the logical and epistemological; whereas the West seeks out a methodology, the East inquires after a path. Students will be encouraged to think in these non-Western frameworks, however, we will also make reference to ideas and themes in Western philosophy to aid understanding of the traditions. This course is reading intensive, using both secondary sources and primary texts.

245. I. The Ancient Greeks: Politics, Poetry, Philosophy.

Also offered as Government 245 and through European Studies.

301. II. Philosophy of Science.

Why does science produce such reliable knowledge? Is there really a "scientific method"? Does science get at truth, or is scientific knowledge socially constructed? These are some of the questions that will be addressed in this course. In addition, we will consider whether science advances according to a steady and rational process, or whether it advances according to radical "scientific revolutions." We will also try to identify what (if anything) distinguishes scientific knowledge from other kinds of knowledge. To conclude the course, we will reflect on whether scientific knowledge is comprehensive enough to constitute a complete worldview.

302. III. Symbolic Logic.

A study of the principles, notations, techniques and philosophical significance of mathematical logic. Topics include the sentential calculus, the quantificational calculus, the theory of classes and relations, axiomatics and the theoretical and practical value of formal deductive systems. Prerequisite: Philosophy 110 or permission of instructor. Offered on demand.

310. I. Philosophy of the Environment.

A study of the philosophical questions raised by the current environmental movement and concern for the environment. Should we do more to protect the natural environment, and if so, why? What are the deep causes of our environmental problems? Are they caused primarily by personal ethics or are social and economic institutions more important? How do ethics and institutions foster environmental destruction? If our current ways of living are not right, what changes in personal ethics and social institutions would enable us to live sustainably and with a proper respect for the natural world? Prerequisite: Philosophy 100 or Philosophy 110. *Also offered as Environmental Studies 310.*

315. Gender and Science.

This course is an upper-level seminar-style course on the relationships between gender issues and science. Many kinds of questions can be asked about gender and science: questions regarding the social context of science with respect to gender issues; questions regarding the historical development of science and

how the changing roles of women in society have affected science; and questions regarding the epistemological and ethical implications of these changing relationships. Two of the most important ongoing issues raised by the study of gender and science are: If there has been gender bias in scientific practice, has this affected the content of scientific knowledge, and if so, in what ways? If there has been gender bias in the practice of science, are there important ethical problems resulting from this bias? By exploring these questions and issues, we will be able to consider how science might better be a method of understanding in a democratic society. *Also offered as Gender Studies 315.*

317. III. Mathematical Logic.

Also offered as Mathematics 317.

324. Limits of Knowledge: Exploring the Boundaries of the Unknowable.

Several of the most striking and important results of Western philosophy and science are findings about what we cannot know. Can we definitively draw lines beyond which it is impossible to know? If we do so, are we not claiming to know at least a little about what lies beyond these lines? How could this be possible? In this course, we will study various examples of running into the limits of *knowability*: from medieval ruminations on the unknowability of God to Gödel's incompleteness theorem, Heisenberg's uncertainty principle and the "problem of consciousness."

327. Existential Philosophy.

Freedom, responsibility, the nature of being, the individual, community and communication are all themes of existential philosophy. Taking a comparative approach, students will investigate existential philosophy as it appears in the Western tradition with, for example Heidegger and Sartre, and they will also examine Asian philosophical approaches to existential questions. What are the different ways of approaching basic questions about human existence? Are these basic questions the same across traditions? Students will be encouraged to explore critically both the commonalities and differences across traditions to begin to develop their own views of what it means to be human.

331. II. Free Will, Responsibility and the Person.

In most cases we believe that a person is responsible for an action only if he or she has acted "of his or her own free will." But what do we mean by *free will*? If everything that happens is caused by previous things that have happened (as the thesis of determinism claims), so that all our choices are caused by previous events, would that imply that no one ever has free will? Would it show that no one is ever really responsible? What picture or concept of a person (as distinct from an animal or an inanimate object) is implied by the answers we might give to these questions? These are among the issues addressed in this course.

332. I. Africana Philosophy.

This seminar will engage two interrelated bodies of philosophic literature, drawn from contemporary work within and about African philosophy, and one, sometimes called "Black philosophy," that concerns questions of epistemology, ethics and politics arising from the African diaspora. In the first part of the course we will read African thinkers on the question "What is African philosophy?" We will consider closely two contemporary philosophers who articulate African philosophical systems of thought:

Odera Oruka, working in Kenya, seeks to record and codify a tradition of thought he calls "sage philosophy"; Kwame Gyekye, from Ghana, analyzes the philosophic thought of the Akan. Next we will read several philosophers of the African diaspora, including Marcus Garvey, Leopold Sedar Senghor, Aime Cesaire and Frantz Fanon. We will end with a section devoted specifically to African-American philosophy; reading Frederick Douglass, W.E.B. Du Bois, Malcolm X, Martin Luther King Jr., Lucius Outlaw, Cornel West and bell hooks. *Also offered through Cultural Encounters and African Studies.*

341. I. Politics Through Literature.

Also offered as Government 341.

344. I. Modern Political Thought.

Prerequisite: Philosophy 206. *Also offered as Government 344 and through European Studies.*

357. I. Postcolonial Literature and Theory.

Also offered as English 357.

361. II. Literary Criticism.

Also offered as English 361.

401. Philosophy Thesis.

Under the supervision of the department faculty, the student develops a philosophical thesis and defends it in a department seminar. Limited to majors and minors.

402. Philosophy Tutorial.

Under faculty supervision, the student assists in the teaching of an elementary course in philosophy. Limited to majors.

451. Research.

Intended for students who have shown aptitude in philosophy and who, in the opinion of the staff, would benefit from faculty-guided research in philosophy. Prerequisite: permission of instructor.

Physics

Major and minor offered

Associate Professors Jahncke, Johnson, Koon, O'Donoghue, Watson (chair).; **Assistant Professor** Kim (visiting).

The goals of the physics curriculum are to provide a conceptual and quantitative understanding of the fundamental laws of nature upon which all physical and biological systems depend, and to provide the experimental and theoretical methods required to attain this understanding. The physics department courses serve the needs and interests of students regardless of their background in science and mathematics. Physics 102, 110 and 112 are designed for the student with little or no background in the sciences or mathematical reasoning. Students in the life sciences or the pre-medical pro-

gram should enroll in Physics 103, 104. Students with high school preparation in physics and mathematics who plan to major in a physical science should elect Physics 151, 152, as should those in the Engineering Combined Plan.

Students who are curious about the behavior of the natural world at its most basic level and who find pleasure in discovering the order in the world around them should consider a major in physics. In addition to its intrinsic worth as a liberal art, the study of physics serves as preparation for further professional training in physics, engineering, medicine and other related fields, such as biophysics, geophysics, space science, and secondary school science teaching. Physics majors also pursue careers in business, management and industry, often in areas that deal in the application or development of technology.

Coursework for the physics major depends on material covered in previous courses, so it is strongly advised to begin with Physics 151, 152 in the first year. Physics 221, 222 should be completed in the sophomore year, by which time all of the major topics in classical and modern physics will have been surveyed. Courses at the junior and senior level investigate particular areas of physics in greater detail and abstraction, and at increasing levels of mathematical sophistication.

Students may also undertake independent studies and projects at the intermediate or upper level on topics of mutual interest.

A special feature of the curriculum is the seminar series in contemporary physics, which introduces the student to recent discoveries and active fields of research.

It is possible for physics majors to participate in programs abroad. Those interested in this option should take Physics 151, 152 in their first year and consult the department for details.

The physics department is distinguished by its strong laboratory program. Most 100-level courses include weekly experiments that are closely related to concurrent classroom work. Laboratory work in higher-level courses gradually allows students more freedom and responsi-

bility to design and execute their experiments. Laboratory work for scheduled courses culminates in Physics 482, a semester-long project selected and performed by each student in consultation with a faculty sponsor. Other student research may take place in either semester under courses designated Physics 403 and 404.

Physics laboratories are well equipped with modern equipment, electronic instrumentation and computer facilities. A machine shop and darkroom are available for student use.

The physics faculty believe that the most complete education in physics is attained through the actual process of doing physics. Opportunities exist for student participation in faculty research activities during the academic year (Physics 403, 404) or during the summer. Well-qualified students may receive summer stipends to conduct research in astrophysics, experimental low-temperature physics, theoretical and computational solid-state physics and near-field optical microscopy.

St. Lawrence offers interdisciplinary majors in biology-physics and geology-physics; each is described in its own section in this *Catalog*.

Major Requirements

The requirements for a major in physics are nine course units: Physics 151, 152, 221, 222, 307, 308, 333, 482 and one additional course unit at the 400 level. Majors contemplating graduate study in physics should take Physics 401, 402 and should consider acquiring a reading knowledge of German, Russian or French since a few Ph.D. programs still retain some foreign language requirement. Since physics students make extensive use of computers, potential majors are advised to enroll in Computer Science 140 during the sophomore year. The three-course calculus sequence (Mathematics 135, 136, 205) should be completed as soon as possible. Recommended for the major are Mathematics 217 and 230 and Chemistry 103, 104.

Minor Requirements

A minor in physics consists of Physics 151, 152, 221, 222 and 307.

Basic Engineering Combined Plan

Students in the engineering combined plan who choose physics as a major must complete seven course units in physics: 151, 152, 221, 222, 307, 308 and 333. Other requirements for the engineering combined plan are given in the Curriculum chapter of this *Catalog*.

Certification to Teach Physics

Students seeking initial certification as a 7-12 physics teacher in New York must major in physics and also complete the certification minor in education. Physics majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the physics major and the pre-certification minor in education (or its equivalent) as undergraduates. Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Honors

To qualify for honors, students must fulfill the following requirements:

1. A major in physics that includes at least three units of 400-level work in physics, not including units earned in the seminar series 451-454.
2. Submission for departmental evaluation of a copy of an independent project undertaken in the senior year.
3. A minimum grade point average of 3.5 in all courses in the major. (See Honors in the Curriculum chapter of this *Catalog*.)

Courses

102. Introduction to Astronomy.

People of every time and culture have studied the skies, named the arrangements of stars and used the apparent motions of the sun and moon to mark time. This course, designed for the non-scientist, surveys the known contents of the universe with the objective of giving the student familiarity with them. The dynamic natures of celestial objects are also explored by study of

their motions, interactions and evolutions. To foster appreciation for the methods of science, attention is given to Western culture's slow path toward understanding the cosmos and our place within it. The laboratory offers the opportunity for actual naked eye, binocular and telescopic observations along with experiments and planetarium experiences designed to clarify astronomical processes, coordinates and motions. There is no prerequisite for this course, which satisfies the natural science distribution requirement. Major credit restricted.

103, 104. College Physics.

This course is designed to provide a general survey of physics. It emphasizes the relationship between basic physical principles and observations, both in the laboratory and in everyday events around us. It covers topics in mechanics, wave phenomena, electricity and magnetism, and modern physics. The mathematical level of presentation assumes elementary algebra and basic trigonometry. While it serves as the appropriate physics course for students in the life sciences, it is designed to be accessible to all who have an interest in the subject. It can be used to fulfill the natural science distribution requirement. One laboratory period per week in addition to class work.

110. The Scientific Revolution.

This course covers the development of scientific thought in the period 1500 to 1725. It examines changing views of nature in the fields of anatomy and physiology, astronomy and physics. Although the primary focus is on specific scientific developments, they are discussed in the context of concurrent social, economic and religious changes. There are no prerequisites for this course, which can be used to fulfill the humanities distribution requirements. Major credit restricted. Also offered as *History 110 and through European Studies*.

112. Global Climate.

Climate is perhaps the single most important and pervasive factor controlling global ecosystems and human well-being. This interdisciplinary course examines global climate from a historical perspective, beginning with the formation of the solar system and continuing through geologic time to the present. Topics covered include the development of the atmosphere; the workings of the global "heat engine" of atmosphere, oceans and continents; evidence for past climate change; causes of global climate change; the effects of climate change on human evolution and the effects of human evolution on the global climate system. This is a team-taught studio lab course satisfying the natural science distribution requirement. Also offered as *Environmental Studies 112 and Geology 112*.

151, 152. University Physics.

A general study of conservation laws, Newtonian dynamics, special relativity, electricity and magnetism, thermal and statistical physics and the wave nature of light and matter presented at the level of elementary calculus and organized according to the major unifying principles of physics. These courses are recommended for all students majoring in the physical sciences. One laboratory period per week in addition to class work. Prerequisite: at least one year of high school physics, Physics 103, 104 or permission of instructor. Corequisite: Mathematics 135, 136.

221, 222. Modern Physics.

A systematic study of the new ideas and discoveries that have transformed physics in the twentieth century. Topics include special relativity, atomic structure, wave-particle duality, basic quantum mechanics, solid-state physics, nuclear structure and elementary particles. One laboratory per week in addition to class work. Prerequisites: Mathematics 136 and Physics 104 or 152.

307. Classical Mechanics.

A formal presentation of the principles of Newtonian mechanics at the intermediate level. Dynamics of particles and rigid bodies, resonance, rotating reference frames, planetary motion, wave motion and Lagrange's equations. One laboratory period per week in addition to class work. Prerequisites: Physics 152, Mathematics 205. Corequisite: Physics/Mathematics 333 or permission of instructor.

308. Electricity and Magnetism.

A formal study of electricity and magnetism leading to Maxwell's equations and A.C. circuits. One laboratory period per week involving electronics, instrumentation, computer techniques for acquiring data and controlling experiments and data analysis. Prerequisites: Physics 152, Physics/Mathematics 333 or permission of instructor.

311. 19th- and 20th-Century Science.

In this course we examine a few of the major scientific developments of the 19th and 20th centuries in some detail. Topics include evolution, genetics and a synthesis of the two; the wave theory of light and special relativity; the discovery of the atomic and nuclear structure of matter; and the Manhattan Project. We also examine the various ways historians of science construct the stories they write as well as some of the historiographic issues they face. *Also offered as History 311 and through European Studies.*

333. Mathematical Methods of Physics.

Important problems in the physical sciences and engineering often require powerful mathematical methods for their solution. This course provides an introduction to the formalism of these methods and emphasizes their application to problems drawn from diverse areas of classical and modern physics. Representative topics include the integral theorems of Gauss and Stokes, Fourier series, matrix methods, selected techniques from the theory of partial differential equations and the calculus of variations with applications to Lagrangian mechanics. The course also introduces students to the computer algebra system Mathematica as an aid in visualization and problem solving. Prerequisites: Physics 152, Mathematics 205. *Also offered as Mathematics 333.*

401, 402. Theoretical Physics.

Intended for physics majors preparing for graduate study in physics and closely related areas, this course applies methods of advanced analysis to quantum mechanics and other topics. Prerequisite: Physics 307, 308 or permission of the department.

403, 404. Topics in Advanced Physics.

Seminars, projects or participation in faculty research designed to meet individual needs of advanced students. Offered on demand. Prerequisite: Physics 307, 308 or permission of the department.

451, 452, 453, 454. Seminar in Contemporary Physics.

A weekly seminar in which both students and faculty present reports on currently active fields of research in physics. Representative topics are solar neutrino, high-temperature superconductivity, the search for gravity waves, chaos and fractals. Up to four semesters of enrollment are permitted at one-half course unit per semester. Prerequisite: Physics 222 or permission of instructor.

482. Advanced Laboratory.

This course for physics majors consists of an individual project selected from an area of common interest between the student and one of the faculty members. A written report of the project is defended at an oral presentation. Prerequisite or corequisite: Physics 308 or permission of the department.

Psychology

Major and minor offered

Professors Cunningham, Greene, Searleman; **Associate Professors** Ghiraldi, Mooney, Sigmundi, Wallace (chair); **Assistant Professors** Cain, Crosby-Currie, Markow (visiting), Poczwardowski, Thacher.

The primary objectives of the psychology department are to discover and teach the factors that underlie behavior. Our scientific approach to understanding behavior is featured in the introductory psychology course, which covers a wide variety of topics, including the history of psychology, the brain and behavior, sensation and perception, learning, memory, development, motivation, social behavior, attitude formation and change, personality and abnormal behavior. In-depth investigation of these topics is offered in upper-level courses, seminars, independent study programs and the senior project.

Although the major focus of the department is on psychological theory and research, students are also offered the opportunity to apply their knowledge of psychology to practical settings. These opportunities vary from semester to semester, but include courses of an applied nature in industrial psychology, community psychology, clinical psychology and independent study projects designed by the student in collaboration with a faculty member.

The department also operates a pre-school playgroup through which students, primarily in

the developmental psychology course, may observe child behavior and relate it to their in-class learning. Laboratory courses allow students to learn in a “hands-on” fashion, practicing research techniques, replicating experiments and investigating topics of individual scholarly interest.

Enrollment in psychology courses is typically limited to 35 students. Laboratory sections and seminars are smaller, allowing for a more personalized educational experience.

Several students are hired each semester as departmental assistants. Most of the opportunities are in the preschool playgroup and in other laboratory courses.

The department strongly encourages and rewards meritorious achievements. Students with an overall average of at least 3.2 and a psychology average of at least 3.4 (based on a minimum of four psychology courses) may join Psi Chi, the national psychology honorary. In addition, each spring the psychology faculty select outstanding senior majors as recipients of the J.H.L. Roach Award and the Peter Silverhart Award, which are presented at the Moving-Up Day ceremony.

Currently, approximately 130 students major in psychology, and over the years a substantial percentage (43 percent) of our graduates have entered graduate school in psychology and related fields. In addition, the bachelor of science degree in psychology has provided many students with the liberal arts foundation for careers in business, law, medicine, education, social work and other areas.

Major Requirements

The department wants students who graduate from St. Lawrence with a degree in psychology to have a comprehensive background in the discipline's various subfields. One of the requirements for a major is the successful completion of Psychology 100 or 101 (Introductory Psychology), which is a prerequisite for admission to all other psychology courses. All majors must also take Psychology 205 (Research Methods).

In addition, to complete the major, students are required to take courses from each of the following groups:

- I. *Biological/Acquisition Processes* (two courses):
 326. Hormones and Behavior.*
 327. Sensation and Perception.*
 331. Physiological Psychology.*
 401. Fundamentals of Learning.*
 402. Memory and Cognition.*
 432. Animal Behavior.*
- II. *Developmental/Social Processes* (one course):
 207. Developmental Psychology.
 253. Personality.
 325. Social Psychology.*
- III. *Clinical and Applied Areas* (two courses):
 313. Industrial/Organizational Psychology.
 317. Abnormal Behavior.
 318. Environmental Psychology.*
 413. Community Psychology.
 442. Mental Retardation/Developmental Disabilities.
 443. Introduction to Clinical Psychology.
 456. Health Psychology.

*Courses that may be taken for laboratory credit.

At least two courses beyond 101 and 205 must be taken for laboratory credit. If a course is taken with laboratory, 205 or the instructor's permission is required. It is also recommended that each major take Mathematics 113 (Statistics) and independent study or research. Students must have at least a 2.5 overall GPA to take either independent study (471, 472) or independent research (497, 498). A major must complete at least eight semester units of psychology courses.

To receive laboratory credit in a course, a student must receive a passing grade on both the laboratory and lecture components of the course. A failing grade on the laboratory component will result in the student being re-registered into the non-laboratory or lecture section of the course. No more than one psychology unit in a St. Lawrence international program may be counted toward the minimum eight-course major. If a matriculated St. Lawrence student wishes to take a course at another college or university for transfer credit, the student and the department chair should agree in advance

on the appropriateness of the course(s) and which of the above requirements, if any, will be satisfied. A transfer student and the student's advisor should confer with the department chair about the student's transferred courses and which requirements remain to be filled. Courses for laboratory credit must be taken at St. Lawrence.

Minor Requirements

A minor must complete at least six psychology courses. Required courses include Psychology 100 or 101 (Introductory) and 205 (Research Methods). At least one course from two of the three groups of courses listed above under requirements for the major must be completed satisfactorily. At least one course beyond 101 and 205 must be taken for laboratory credit. If a course is taken with laboratory, 205 or the instructor's permission is required. It is also recommended that each minor take Mathematics 113 (Statistics). No more than one psychology unit in a St. Lawrence international program may be counted toward the minimum six-course minor.

Honors

Honors are awarded on the basis of quality point standing in psychology (see Honors in the Curriculum section of this *Catalog*) and successful completion of the senior project (Psychology 499) with a grade of at least 3.5. Two types of projects are acceptable for the senior project:

1. Independent research involving either pure or applied investigation.
2. Independent study involving an integration and critical analysis of research and theory in a given area of psychology.

Following are the criteria for successful completion of the senior project:

1. Enroll in Psychology 499 (Senior Project) no later than the fall semester of the senior year.
2. Give a preliminary presentation of the proposed study to other students and faculty involved in the senior project course.

3. Attend colloquia of other senior project students and guest lectures.
4. Give a formal colloquium on the completed project.
5. Satisfactorily complete the course in the spring semester of the senior year.
6. File a copy of the final project paper in the psychology department office as well as with the project supervisor.

Graduate Courses

Refer to the University's *Graduate Studies Catalog*, available from the education department.

Courses

100. Introductory Psychology. (101 with laboratory)

This course surveys the scientific study of behavior and mental processes as natural phenomena. Basic psychological areas such as biopsychology, sensation, perception, learning, memory, motivation and emotion are addressed. Broader, integrated topics such as development, personality, social and abnormal psychology are also explored. The laboratory section (101) focuses on how psychologists formulate research questions, gather data and interpret findings based on the major conceptual approaches in the field of psychology. Psychology 100 or 101 is a prerequisite for all other courses.

205. Research Methods in Psychology.

This course presents students with various techniques for applying the scientific method to behavioral research. It also emphasizes effective communication through scientific writing. Students learn about observational, correlational and experimental research designs. They have the opportunity to apply these designs in the laboratory while investigating relevant psychological phenomena. Appropriate statistical procedures and computer software are used to analyze the data from these labs. For this reason it is highly recommended that prior to the course the student take a course in statistics (Mathematics 113). Psychology 205 also counts toward the minor in applied statistics. Prerequisite: Psychology 100 or 101.

207. Developmental Psychology.

This course is intended to describe and explain the changes in behavior that occur with the passage of time from conception until death. While emphasis is placed on the early years of most rapid change, appropriate topics are covered throughout the life span. As the mature individual is a product not only of his or her own history, but also of the history of our species, there is some discussion of evolutionary theory and developmental data gathered on other species. Prerequisite: Psychology 100 or 101.

220, 221, 222, 223, 224, 225. Seminars for Non-Majors.

These seminars are offered occasionally in specific areas of psychology at a depth intermediate between Psychology 100, 101 and advanced-level courses. Topics and format vary depending

upon the instructor. Consult the *Class Schedule* for descriptions of courses currently offered. First priority is given to first-year students and sophomores, second priority to junior and senior non-psychology majors. Prerequisite: Psychology 100 or 101.

238. Psychology and Law.

This course explores the contributions psychological science can make and has made to legal policy and the legal system through the examination of several topics within the field of psychology and law. Topics include expert testimony in the courtroom (e.g., eye-witness identification, syndrome evidence), issues of competence (e.g., competence to stand trial, insanity defense), jury behavior, capital punishment and the psychology of law enforcement. Prerequisite: Psychology 100 or 101.

248. Special Topics in Psychology.

These courses cover special topics not regularly offered in the curriculum. The courses are designed for first-year students and sophomores and are taught in a regular class format. Refer to the *Class Schedule* for course descriptions. First enrollment priority will be given to first-year students and sophomores. Prerequisite: Psychology 100 or 101.

253. Personality.

Personality theories provide a framework with which to understand a person's development, motivation and behavior. This course examines traditional and contemporary theories of personality focusing on representative theorists from the psychoanalytic, trait, behavioral, cognitive and phenomenological approaches. Evaluation of theories on logical and empirical grounds is discussed. Prerequisite: Psychology 100 or 101.

255. Sport Psychology.

This course is designed to develop an understanding of human behavior and mental processes in sport and exercise settings. Topics that we examine include: (a) psychosocial aspects (e.g., motivation, psychological responses to injury, aggression) involved in the sport training process and competition among adults, youth and children at all skill levels, (b) psychological skills training for athletic performance (e.g., relaxation, self-talk, mental routines), (c) sport group dynamics (e.g., leadership, communication) and (d) major exercise psychology concepts and issues (e.g., exercise adherence, motives for participation, and exercise and psychological well-being).

313. Industrial/Organizational Psychology.

A course designed to acquaint the student with major applications of psychological findings and techniques to problems of management and industry. The course includes human factors engineering, personnel procedures, organizational behavior and consumer behavior. Prerequisite: Psychology 100 or 101.

317. Abnormal Behavior.

A study of the major behavioral disorders, personality disturbances and mental illnesses. Included are consideration of the mentally ill throughout history and current methods of diagnosis, treatment and research. Actual case reports are reviewed. Prerequisite: Psychology 100 or 101.

318. Environmental Psychology.

This lecture-laboratory course studies the relationships between humans and physical environments—both natural and built, a

new area of psychological investigation. Topics include environmental assessment, attitudes and behavior toward the environment and the psychological effects of such environmental factors as crowding, architectural design, extreme environments, pollution and natural disasters. Prerequisite: Psychology 100 or 101; if taken for laboratory credit, Psychology 205. Also offered as *Environmental Studies 318 and through Outdoor Studies*.

325. Social Psychology.

A lecture-laboratory course that introduces the theory and research relating the behavior of individual humans to factors in the social environment. Topics, chosen to represent the scope of social psychology, include attitude formation and change, conformity, affiliation and attraction, altruism, aggression, prejudice and group dynamics. Prerequisite: Psychology 100 or 101; if taken for laboratory credit, Psychology 205.

326. Hormones and Behavior.

This lecture-laboratory course is an introduction to the field of behavioral endocrinology. Current knowledge derived from human and animal research concerning the effects of hormones on behavior is reviewed. Topics include the influence of hormones on reproductive behavior, parental behavior, ingestive behavior, aggression, sexual orientation, moods and emotions, psychiatric disorders and perceptual and cognitive abilities. Environmental and experiential influences on hormone behavior are also examined. Prerequisites: Psychology 100 or 101; if taken for laboratory credit, Psychology 205.

327. Sensation and Perception.

A lecture-laboratory course dealing with the way we perceive the world around and within us from a biological/cognitive perspective. The course emphasizes current research problems in hearing and sight. Prerequisite: Psychology 100 or 101; if taken for laboratory credit, Psychology 205.

331. Physiological Psychology.

A lecture-laboratory course designed to show how neural structure and activity is related to behavior—an evolutionary approach covering no particular species but including humans. Prerequisite: Psychology 100 or 101; if taken for laboratory credit, Psychology 205.

348. Special Topics.

These courses cover special topics not regularly offered in the curriculum. The courses are designed for juniors and seniors and are taught in a regular class format, possibly with laboratory. Refer to the *Class Schedule* for course description. Prerequisite: Psychology 100 or 101.

401. Fundamentals of Learning.

A lecture-laboratory course dealing with the concepts involved in learning as derived from experimentation with both human and nonhuman subjects. Topics include the laws of classical and operant conditioning, biofeedback, token economies, observational learning, learned helplessness, biological constraints on learning, behavior modification techniques and ethics of behavioral control. Prerequisite: Psychology 100 or 101; if taken for laboratory credit, Psychology 205.

402. Memory and Cognition.

This lecture-laboratory course involves a fairly comprehensive study of human cognition. In addition to extensive coverage of memory, the course includes an analysis of such major areas as concept formation, problem-solving, semantic organization, reading and language learning. An introduction to contemporary theoretical formulations is provided. The importance of previous knowledge and contextual factors is emphasized. Prerequisite: Psychology 100 or 101; if taken for laboratory credit, Psychology 205.

413. Community Psychology.

This seminar-internship course has two objectives: to develop an understanding of the community psychology perspective through primary source readings and discussion and to further that understanding through an internship placement in a community setting (eight hours per week). Topics considered in the seminar include the ecological perspective, stress and coping, prevention and empowerment; exemplars of community psychology interventions (e.g., preventive interventions, grassroots organizing and self-help groups) and current issues in the field (e.g., child abuse and neglect, homelessness, alcohol and substance abuse) will also be explored. Possible internship placements include Headstart, residential homes for juveniles, nursing homes, crisis intervention centers and Planned Parenthood; a small number of students may participate in a community research project as their internship placement. Due to the nature of the course, students must complete an application and preregister for the course. Prerequisites: Psychology 100 or 101, Psychology 205 and permission of instructor.

432. Animal Behavior.

A lecture-laboratory course studying various forms of behavior as they appear throughout the phylogenetic scale. The roles of evolution, genetics and the neural system in the control of diverse behaviors from feeding to territoriality and human aggression are considered. Prerequisite: Psychology 100 or 101; if taken for laboratory credit, Psychology 205.

442. Mental Retardation/Developmental Disabilities.

An examination of the area of developmental disabilities (mental retardation, autism, epilepsy, cerebral palsy) with primary emphasis on mental retardation. Among the topics considered are the influence of biological and psychological factors in producing disabilities, cognitive and personality characteristics associated with different levels of retardation, assessment of intelligence and adaptive behavior, and societal intervention through community services, educational placement and treatment programs. On-site visits to residential facilities are generally scheduled. Prerequisites: Psychology 100 or 101 and Psychology 207 or permission of instructor.

443. Introduction to Clinical Psychology.

An examination of the field of contemporary clinical psychology. Investigation focuses on the problems and procedures related to psychological diagnosis, therapeutic methods and research strategies. Prerequisites: Psychology 100 or 101 and Psychology 317.

452. Infancy.

A peek-a-boo at the environmental and evolutionary influences on human development from conception until about two years. Topics include: (1) prenatal development and birth, (2) the perceptual, motor, cognitive and linguistic abilities of the infant, (3) assessment in infancy and (4) social development in infancy (e.g., sex and personality differences, theories of attachment, etc.). The course is intended for junior and senior psychology majors who have taken Psychology 205 and 207. Interested students who do not have the recommended background are encouraged to consult with the instructor. Course format: lecture and discussion. Prerequisite: permission of instructor.

455. Comprehensive Overview.

This seminar, designed for senior psychology majors, attempts to enhance the student's knowledge of concepts and facts from a broad range of subfields in psychology and to aid the student in discovering how the various areas, findings and courses can be integrated. To facilitate this integration, each faculty member in the psychology department visits the class to discuss his or her special area of expertise and to relate it to the general field of psychology. Students read appropriate sections of an advanced-level introductory, comprehensive text as well as outside readings suggested by the course instructor and/or the visiting professors. Prerequisite: senior major in psychology.

456. Health Psychology.

Health psychology is an applied field devoted to understanding psychological influences on health and illness in our society. This course examines a variety of social and behavioral factors that affect our physical well being, including the impact of life stress on the immune system, the influence of personality factors on specific illnesses and the relationship between doctor-patient interactions and adherence to medical advice. Other topics include obesity, heart disease, stress management and behavioral therapy. Prerequisite: Psychology 100 or 101.

471, 472. Independent Study in Psychology.

Individual opportunity to engage in in-depth documentary investigation of a particular topic in psychology. Prerequisites: Psychology 100 or 101 and permission of instructor.

480, 481, 482, 483, 484, 485. Seminars in Psychology.

These seminars involve group study and investigation of psychological topics not regularly offered in the curriculum. Refer to the *Class Schedule* for descriptions of offerings. Prerequisites: Psychology 100 or 101 and permission of instructor.

497, 498. Independent Research in Psychology.

This course offers students the opportunity to engage in empirical and/or experimental research in psychology. Prerequisites: Psychology 100 or 101, Psychology 205 and permission of instructor.

499. Senior Project.

This course must be completed satisfactorily to receive honors in psychology. Requirements include presentation of high-quality preliminary and final colloquia on the project, attendance at colloquia of others doing senior projects and filing a copy of the final paper with the department and with the project supervisor. Prerequisites: Psychology 100 or 101, Psychology 205 and permission of instructor.

Religious Studies

Major and minor offered

Professor Coburn; **Associate Professors** Greenwald, MacWilliams, (chair); **Assistant Professors** Raab, Renold (visiting).

The main goal of the department of religious studies is to guide students in the academic study of religion. On occasion or by arrangement, the department also offers interested students the opportunity to study classical languages (Greek and Hebrew), but these are not part of the major or minor.

The department's aims in religious studies are: (1) to explore the religious dimension of human experience in its variety of forms—past and present; (2) to deepen students' awareness of cultures other than that of the modern West by fostering an appreciation of the powerful significance of religion in these cultures; (3) to invite students to an area of academic study not normally available in high school and not usually offered in an atmosphere of impartial inquiry in early religious education; (4) to promote independent study and research under faculty guidance; and (5) to prepare some students for graduate study in the field of religion.

To accomplish these goals the department offers an introductory course in the study of religion; courses in the history, scriptures, rituals and life of all the world's major religious traditions, Eastern and Western, as well as in Native American religion, mysticism and mythology; courses that compare several traditions; and topical courses that deal with such subjects as ethics, feminist issues, modern Asian religion and the Holocaust.

The department's faculty use lectures, seminar discussions and independent study as teaching methods. Class size is 30 or fewer, allowing mutual exchange of ideas among students.

Most students who major in religious studies do so out of a desire for a broad liberal arts education. A concentration in religious studies is an ideal way to develop an inquiring mind, flexibil-

ity of perspective, an appreciation for cultural diversity and a humane spirit. It is therefore a good general major for those entering business or the professions. It is particularly suitable for those who would understand the religious dimension of cultural and ethnic diversity in the modern world.

Major Requirements

Ten to 12 units are required within the field of religious studies; the minimum number required is nine.

Majors are required to take the following courses. With the permission of the department chair, certain courses may count in a category other than the ones in which they are listed.

1. Religious Studies 100: Mystery and Meaning: An Introduction to the Study of Religion.
2. Three courses that survey the various religious traditions. Students may take two courses from Group I and one from Group II, or vice versa. Note: Religious Studies 212 may substitute for the second course in either group.
Group I: 221,222,223,226
Group II: 224,225,231
3. One course in scripture: 205 or 206.
4. One comparative course:
214,260,270,271,312,333,370.
5. One topical course:
261,262,266,267,307,308,331,339,380.
6. One additional course from any category. This requirement may be satisfied by a related course from another department with approval of the chair of this department.
7. Religious Studies 460: Majors Seminar.

Minor Requirements

A minor consists of five courses in religious studies: Religious Studies 100; a 200-level Eastern religious traditions course (#2, Group I above); a 200-level Western religious traditions course (#2, Group II above); and any two other courses of the student's choice. Religious Studies 212, Native American Religion, may satisfy either the Eastern or Western traditions requirement.

Honors

To receive honors in religious studies, a student must satisfy the requirements for the major and, in addition, must meet the following two requirements: (1) a 3.5 cumulative GPA in the department and (2) a departmentally approved honors project taken as Religious Studies 450 or 451. See also Honors in the Curriculum chapter of this *Catalog*.

Courses

Introductory

100. Mystery and Meaning: An Introduction to the Study of Religion.

This course is a general introduction to both the subject matter and the study of religion. The introduction calls attention to the fact that, although human beings have been religious in enormously varied ways since the dawn of history, the study of religion is a recent development, originating in Western Europe and America during the last century. What is there about the modern West that has led it to study religion on a global scale? Subsequently, attention is turned to the subject matter of religion, drawing selectively from the wealth of material that may be regarded as religious: past and present, literate and non-literate, Eastern and Western. The course concludes by considering the place of the study of religion in the contemporary liberal arts curriculum, the discipline's relationship to adjacent disciplines in the humanities and social sciences and the distinction between the study and practice of religion.

Scripture

205. Introduction to the Hebrew Bible. (In English)

This course is designed to enable the student to use the insights of modern biblical scholarship to read the Hebrew Bible (Old Testament) in an informed manner. The student is introduced to the entire array of methods used for understanding biblical texts, although historical, sociological and literary analyses are emphasized. Attention is also given to the ways modern Judaism and Christianity understand specific biblical passages.

206. Introduction to the New Testament.

The goals of this course are identical to those of Religious Studies 205, although that course is not a prerequisite. The same forms of analysis that were used to understand the Hebrew Bible are used to understand the New Testament. The course emphasizes the different ways Christian communities understood the Christian message and how these different understandings came to be embodied in a single collection of documents.

307. Jesus in the Gospels.

This course studies one or more of the gospels using any or all of the techniques of modern biblical scholarship. It examines how the author(s) understood the ministry of Jesus and how they communicated that understanding to the reader. The format of the course is a combination of lecture and seminar. Religious Studies 206 or permission of the instructor required.

308. Seminar in Feminist Interpretation of Scripture.

This seminar examines the premise that both the Hebrew Bible and the New Testament were produced and canonized by societies that were patriarchal in their structure and in their very essence. We then ask how, if at all, a modern woman of faith can use these documents to express her own religiosity. Readings are from the works of several feminist interpreters of Scripture and feminist theologians from both Christian and Jewish traditions. There are no prerequisites, but any of the following courses may be helpful: Religious Studies 205, Religious Studies 206, Gender Studies 103 or English/Philosophy 361. Class size is limited.

Surveys of Religious Traditions

212. Native American Religion.

A course designed to introduce students to the traditional religious life of North American native peoples. Particular attention is given to the Iroquois or Six Nations and to the Lakota on the Plains; peoples other than the Iroquois Eastern Woodlands and some of the nations of the southwest are also studied. *Also offered through Native American Studies.*

221. The Religious Life of India.

An introductory exploration of the indigenous religious life of India, both past and present. The baseline for this investigation is historical, beginning with the prehistoric evidence and concluding with the modern scene of Mahatma Gandhi, international meditation movements and politicized religion. Building on this baseline, the concern throughout is to discern what the tradition has meant personally to the individuals involved. Frequent use is made of artistic and video material to appreciate Indian appraisals of the human condition.

222. The Buddhist Religious Tradition.

An introductory exploration of the various classical and contemporary forms of Buddhism. The initial task is to understand the Buddha in the context of India in the sixth to fifth centuries BCE, then to go on to examine the emergence of a sophisticated philosophical and psychological literature, the meditational techniques of Tantra and Zen, the sociopolitical role of the monastery and more. The examination also enables students to follow the historical spread of Buddhism into Sri Lanka, Southeast Asia, Tibet, China, Japan and, more recently, the West.

223. The Religious Life of China.

An introduction to China's unique religious heritage through a selective survey of major thinkers, texts and cultural expressions. The primary emphasis is on the historical development and mutual influence of the "three teachings": Confucianism, Taoism and Buddhism—with special attention given to the relationship between philosophy and popular practice, and to the interaction between political and religious institutions. Topics include gods and the sacred, ritual, ethics, human nature, meditation, mysticism and salvation.

224. The Islamic Religious Tradition.

An introductory examination of that religious tradition which, originating in 7th century Arabia under the inspiration of the Prophet Muhammad, has come to include one-sixth of humankind, and predominates throughout the Middle East, North and East Africa, Pakistan, portions of India and Indonesia. The course

considers the career of the Prophet and the growth of the central institutions of Islamic civilization. The course also endeavors to identify the varied aspirations and concerns of Muslims in the contemporary world.

225. The Religious Traditions of Judaism.

An introductory examination of the religious traditions of Judaism from the biblical period through the 20th century. Just as Christianity is no longer the religion of the Hebrew Bible, neither is Judaism. Emphasis is placed on the development of Rabbinic (modern) Judaism and its evolution in the modern world. Recent movements and events (the emergence of new forms of Judaism, Zionism, the Holocaust and the birth of Israel) are also discussed.

226. The Religious Life of Japan.

A historical and topical introduction to the complex mingling of indigenous and foreign traditions, exemplified by the relationship between Shinto and Buddhism, that has informed Japan's unique religious heritage. Major topics include attitudes toward nature, the interpenetration of religion and the arts (haiku poetry, landscape painting, swordsmanship, the tea ceremony, etc.), monasticism and meditation practices, modern Zen philosophy and the influence of the West. Course materials consist of canonical and secondary texts and autobiographical accounts, works of fiction and film.

231. Christian Religious Traditions.

A survey of the development of the Christian tradition or traditions from the end of New Testament times to the present. Roman Catholicism, Eastern Orthodoxy and the major streams of Protestantism are considered. Special attention is given to a sampling of significant Christian writers, both men and women, of the past and present.

Comparative and Topical Courses

214. Personal Stories of Faith and Doubt.

One of the best avenues for understanding religion is to enjoy and study the personal stories of men and women who have wrestled with religious experiences, ideas and demands. This course examines autobiographies and biographies of people who have encountered religion in varied forms and with varied results. Individuals from the past and from modern times and from different parts of the world are considered.

230. Feminist Issues in Religion.

This course examines the ways that feminism has changed the world's religions, how they are studied and future feminist agendas for them. Contributions of influential feminist thinkers, effects of feminist methodology on the study of religion and the role and status of women in the history of religions are explored. Special attention is given to contemporary Christian and post-Christian feminist thought.

260. Religion and Social Ethics.

After an initial consideration of the general relation of religion to ethics, this course turns to concrete issues, including sexual and family ethics, ecological ethics, political ethics, and ethics of violence and non-violence, war, nuclear weapons and revolution. Religious authors representing a variety of viewpoints and from various religious traditions are read. Student discussion is emphasized.

261. Bioethics.

Such topics as patients' rights, professional confidentiality, abortion, death and the care of the dying, the allocation of medical resources, experimentation, behavior control and genetic intervention are considered. Religious and non-religious authors are read. The course emphasizes discussion; an important feature is student projects. The course is team-taught with a member of the biology department. *Also offered as Biology 261.*

262. Business and Ethics.

This course is an introduction to a growing area of applied ethics, decision-making in business and moral reflection. The course introduces students to ethical theories and moral reasoning; current Biblical moral perspectives and the modern corporation; and a case-study approach to specific topics such as employee rights, information disclosure, preferential hiring, conflicts of interest, whistle blowing, etc.

266. History of the Middle East Since 1914.

A survey of the history of the Middle East from 1914 to the present, set in the context of the region's internal politics. Starting with the collapse of the Ottoman Empire, the rise of Zionism and the rise of Arab nationalism, the course focuses on the development of modern Egypt, Israel, Lebanon, Syria, Iraq, Iran, the countries of the Arabian peninsula and the Palestine Liberation Organization. *Also offered as History 260.*

267. The Holocaust.

A study of the Holocaust, the events leading up to it, and its theological implications for Judaism and Christianity. The course looks for possible causes in German culture and Christian preaching and examines other recent genocides for common factors and common lessons to be learned. *Also offered as History 267.*

270. Fundamentalism as Cultural Encounter.

The word "fundamentalism" was coined in the United States in the early 20th century to describe a kind of Christianity that was opposed to "modernism" in religion and to Darwinian theories of evolution and favored literal reading of the Bible. In the 1950s the term was applied more broadly to apparently similar tendencies in other religious traditions, especially Islam. Today it is used widely and often uncritically to identify movements around the globe. It is often thought to overlap with religious nationalism or with religious enthusiasm generally. This seminar will test a recent hypothesis that suggests that fundamentalism is a generic kind of religiousness that represents a "revolt against the modern age." This will involve two interrelated tasks: (1) becoming familiar with the dynamics of cultural and social change in a variety of settings, including North America, the Islamic world and modern India and (2) exploring the usefulness of the concept "fundamentalism" as a comparative category. *Also offered through Cultural Encounters.*

271. Sociology of Religion.

An introduction of sociological perspectives on religion. The course acquaints students with theories and methodologies in the academic study of religion, basic concepts in the sociology of religion and specific issues such as conversion, religious liberty and gender. The class seeks insight into modern American culture by examining alternative views and experiences of reality.

312. Mystical Experience, Eastern and Western.

As virtually a universal phenomenon, in both explicitly religious and deliberately secular guise, mystical experience-personal encounter with or knowledge of ultimate reality-has received extraordinarily diverse appraisals. Some have acclaimed it "the only truth there is," while others have been executed for admitting to it. This introductory course examines the nature of mystical experience and the variety of its manifestations in and out of the world's major religious traditions, past and present.

331. Pilgrimage as a Spiritual Journey.

This course will explore the experiences, rituals, stories, beliefs, temples/shrines, images and traveling communities associated with the religious phenomenon of pilgrimage. What kind of travel is pilgrimage? Does it have a particular structure? Are there different kinds of pilgrimages? What kind of religious experience does pilgrimage provide? These and other questions will be examined through a close study of selected pilgrimages in Christianity, Hinduism and Buddhism. *Also offered through Cultural Encounters.*

333. Goddesses.

Over the past 20 years, a vast scholarly literature dealing with feminine deities has appeared. Some of these studies examine evidence from the so-called Great Traditions and focus on literary materials. Others are concerned with pre- or non-literate evidence, particularly archaeology. At times, these studies converge with feminist or New Age spirituality. This seminar consists of a critical reading of major selections from this literature, student reports and research into allied topics. It is a course that seeks to survey this relatively new dimension to the study of religion. Permission of the instructor required. *Also offered through Gender Studies.*

339. Theology of Liberation: Analysis, Critique, Alternatives.

This course examines a major expression of the continued vitality of religious life in contemporary Latin America: the emergence over the last several decades of a theology of social change, usually called "theology of liberations." We consider the rise of this theology and the reactions and criticisms it has provoked, compare it with liberation theologies elsewhere in the third world as well as with black theology in the United States, and look at alternatives to it. Prerequisite: Religious Studies 100 or permission of instructor. *Also offered as Government 339.*

370. Asian Religions in the Modern World.

A seminar that examines the transformations that the religious traditions of Asia-Islamic, Indian, Chinese and Japanese have undergone during the past century. Attention is paid to (1) institutional and ideological changes in the Asian traditions themselves and (2) the increasing presence of Asian religious motifs in Western culture.

380. Mythology and Popular Religious Thought in India.

This seminar has two goals: (1) to familiarize students with the great myths of India and the variety of ways they have been woven into the fabric of Hindu culture and (2) to explore some contemporary theories about the nature of myth. Emphasis throughout is on student discussion and research, on engagement with the values of Indian culture and on seeing those values in relation to the concerns of modern Western scholarship.

Special Courses

247, 248. Special Topics.

347, 348. Special Topics Seminars.

450, 451. Directed Studies in Religion.

An individual study program for candidates for honors in religious studies or others showing special interest and aptitude in the study of religion, as approved by the department chair and the instructor under whom the work will be completed. In Religious Studies 450 only, an extended term paper is required as the product of the special study. (A 2.5 average is required.)

460. Majors Seminar.

Required of all majors in religious studies. Students write a series of short research papers, one for each member of the department faculty. These papers are shared and discussed with all department faculty and majors at plenary sessions.

Hebrew

101-102. Classical Hebrew.

This course is an introduction to classical Hebrew. The main interest and value of the study of Hebrew lies in the fact that the Hebrew scriptures are written in this language. During the first semester and part of the second, students are introduced to the script and basic vocabulary and grammar. During the second semester, various parts of the Hebrew scriptures are read. Offered occasionally by request.

Greek

111-112. Hellenistic Greek.

The first term and much of the second are spent mastering the essentials of Greek grammar and vocabulary of the period necessary to proceed in the second semester to readings in the New Testament. Offered occasionally by request.

Sociology

Major and minor offered

Professors Gould, Papson, Sullivan; **Associate Professors** Flores (chair), James, LeClerc, O'Neil; **Assistant Professor** Egan; **Instructors** Fordham-Hernandez (visiting), Glover (visiting).

The sociology curriculum is intended to provide an understanding of the workings of society, its institutions, organizations and groups and to give students insights into both their own and other societies. Faculty strive to provide a multicultural perspective in which human lives are understood within the context of historical and macroscopic social forces. The department is interested in preparing students who will conclude their formal education at the baccalaureate level as well as those who will attend graduate or professional school.

The department also seeks to help its students develop an understanding of social structure, relationships and change. It insists upon the disciplined study of the principles of social behavior—an approach that is fully consistent with the humanistic concerns of the field. Students are introduced to the methods and concepts necessary for sociological investigation and they are encouraged to make their own discoveries about human phenomena. Moreover, the department is committed to supporting writing and oral presentation skills and computer and visual literacy.

Major Requirements

A major in sociology consists of nine to 12 courses in sociology.

In addition to taking at least one 100-level course, majors are required to take the following core courses. Students must take two of the four methods courses. It is recommended that students take social theory prior to the methods courses.

- 300. Qualitative Research Methods.
- 301. Quantitative Research Methods.
- 302. Visual Sociology Methods.
- 343. Comparative Historical Methods.
- 303. Social Theory.
- 407. Senior Seminar.

Students may count Anthropology 102 (Cultural Anthropology) toward their sociology major.

Sociology-Environmental Studies Combined Major

In association with the environmental studies program, the sociology department offers a combined major in environmental studies/sociology. The requirements include the following:

- 112. Inequality. *or*
- 161. Social Problems and Policy.
- 303. Social Theory.
- 465. Environmental Sociology.

One of the three methods courses:

- 300. Qualitative Research Methods.
- 301. Quantitative Research Methods.
- 343. Comparative Historical Methods.

Two socioenvironmental dynamics courses:

- 235. Earning A Living: Work and Occupations in a Global Economy.
- 253. Race, Class and Environmental Justice.
- 261. Technology and Power.
- 319. Population and Contemporary Social Issues.
- 375. Environmental Movements.
- 386. Comparative Regional Issues: Sociological Perspectives.
- 463. Communities in Crisis.
- 476. Globalization and Sustainability.

Two electives in sociology

All environmental studies combined major programs require the following courses:

Introduction to Environmental Studies.	1 unit
Policy/Pollution Courses (PP)	3 units
Environmental Thought.	1 unit
Electives	<u>2 units</u>
	<u>7 units</u>

Minor Requirements

The minor in sociology consists of a minimum of six courses in sociology, including at least one 300- or 400-level course. A minor must be declared by the end of a student's junior year.

Honors

Honors will be granted to students who have a 3.5 GPA in sociology and who have completed and defended a thesis before a departmental committee.

Alpha Kappa Delta

The department sponsors a chapter of Alpha Kappa Delta, the national honorary society in sociology. Membership is open to all students who meet its requirements: a 3.3 overall GPA (exclusive of the first year) and a 3.5 average in four or more sociology courses.

Adirondack/Appalachia Summer Program

In cooperation with the environmental studies program, the department offers a summer program in comparative regional issues. The program provides students with an opportunity to study and compare social and environmental problems in Appalachia and the North Country, particularly the Adirondack area, through extensive travel in both regions, supplemented by

readings and discussion. Additional information may be obtained from the department office (See Sociology 386).

Internships

The department maintains a strong program of internships and field placements for its majors. Internship opportunities exist in the areas of social welfare, crisis intervention, gerontology, health care administration, social policy, law, criminal justice, the media and college administration. Students should complete relevant substantive course(s) before enrolling. Only one unit of credit may be counted for the major except under unusual circumstances approved by the department. For details, students should see the departmental internship coordinator.

Certification to Teach Social Studies

Students seeking initial certification as a 7-12 social studies teacher in New York can major in sociology. In addition to completing the certification minor in education, students majoring in sociology must also take: History 101 (The Rise of Europe), 102 (The 20th-Century World), 103 (Development of the United States: 1607 to 1877), 104 (Development of the United States: 1878 to Present); Cultural Encounters 150 (Introduction to Intercultural Studies); one economics course (Economics 100—Introduction to Economics—is recommended if only one course is taken); one government course (Government 103—Introduction to American Politics—is recommended if only one course is taken); and at least *one* course in the major that illuminates U.S. and/or world history and geography. Students are also encouraged to take courses in other social sciences and area studies to round out their preparation for teaching social studies.

Sociology majors intending to complete student teaching after graduation in the University's Post-Baccalaureate Teacher Certification Program must complete the pre-certification minor in education (or its equivalent) as undergraduates and all of the social science requirements

listed above (or their equivalents). Consult the education section of this *Catalog* and/or speak to the coordinator of the teacher education program in the education department as early as possible.

Courses

101. Principles of Sociology.

An introduction to how and why particular groups of people act, think and feel as they do from a social rather than psychological perspective. The course explores different kinds of sociological explanations as well as a variety of substantive areas within the discipline, including deviance, power, social inequality, the family, collective behavior, formal organizations and others. The substantive areas emphasized vary by instructor. Not open to seniors.

112. Inequality.

An introductory course that examines forces behind the unequal distribution of economic, political, social, cultural and psychological rewards in contemporary U.S. society and globally. The course also examines the consequences of this distribution for both individuals and societies. Students are encouraged to take a closer look at social inequality through fieldwork projects and autobiographical reflections.

115. Images of Deviance and Social Control.

In this class we will explore the battle story between "normal" and "abnormal," between "good" and "bad," between "deviant" and "acceptable," and the social control mechanisms employed in that struggle in both historical and contemporary social contexts. We will sociologically analyze how acts and people come to be defined as "deviant" and the seemingly "objective" ways in which those classifications take place. Moreover, we will grapple with the how this battle ritually reinscribes certain bodies as "other" (namely women, people of color, the poor, the "mentally ill," gays, and lesbians) and how these rituals come to serve as the ground upon which normality comes to be classified. In addition we will explore how some acts get defined as deviant (e.g., a hold up) while others are rarely prosecuted (e.g., corporate crime) and how this relates to issues of racism, classism and sexism. In doing so, we will move through various sources (e.g., social theory, legal theory, case study, art and fiction) to aid us in that endeavor.

161. Social Problems and Policy.

This course explores the causes of and responses to the phenomena labeled "social problems." The course examines how social phenomena are defined as problems and developed into issues. We investigate the role of the media, social movements, government and private capital in identifying problems and placing them on the public agenda. We also focus on a variety of policies proposed (and/or implemented) in response to specific social problems and the political conflicts that result from competing policy alternatives. The social impacts of various policy options associated with these issues will be explored.

221. Sociology of Sex and Gender.

This is an introduction to social science ways of thinking about sex and gender. It will provide an overview of contributions from

a variety of disciplines and will consider both theoretical and historical materials. We will examine the social construction of gender and sexuality and the ways gender and sexuality and society interact and impact on each other and how change take place. The course will use interdisciplinary readings including sociology, anthropology, psychology and fiction. *Also offered through Gender Studies.*

226. Sociology of Families.

This course will introduce the student to perhaps the most important and controversial of social institutions—the family. The focus of the course will be on the American family, although marriage patterns and family forms in other cultures will be examined for comparative purposes. Particular emphasis will be placed on the changes that have taken place in the structure of American households and families since the second world war. Among the topics to be included are courtship, dating and cohabiting; the sexual revolution, pre-marital sex and the problem of teenage pregnancy; marriage and divorce patterns; remarriage and stepfamilies; changing family roles of men and women with particular emphasis on dual-worker and dual-career families; the issue of whether or not to have children; and the challenges of parenthood. The course will also examine a number of hotly contested policy issues related to the family such as childcare, family leave, abortion and the right to privacy. *Also offered through Gender Studies.*

228. Racial and Ethnic Groups.

This course introduces students to race and ethnicity from a sociological perspective. The focus is on racial and ethnic stratification in the United States. Basic concepts and theoretical frameworks that provide the foundation for the sociological study of racial, ethnic and other minority groups are stressed. The first half of the course covers topics such as the social definitions of race and ethnicity; the American immigration experience; patterns of racial and ethnic integration in the United States; theories of prejudice; and the multiple forms of discrimination. The second half is devoted to an examination of specific racial and ethnic minorities, such as African Americans, Native Americans, Latinos and Asians. The experiences of Jews and women in the United States are covered. *Also offered through Caribbean and Latin American Studies.*

235. Earning a Living: Work and Occupations in a Global Economy.

Ask a child what s/he wants to “be,” and you are likely to get an occupation for an answer. Ask an adult what s/he “does,” and you may also get an occupation (or an excuse for not having an occupation) for an answer. Much of the construction of our self-identity is concerned with our preparation for, and the taking up of, a place in the occupational structure. Our occupations and the “social value” of the work we do contribute to definitions of our social worth. For most of us, it is through our work and occupations that we access the resources that provide us with our quality of life and our life chances. This course is about the complex of social, economic, political, cultural and psychological processes that contribute to what it is we want to “be” when we “grow up” and what then becomes possible in a global economy. It examines what happens when there is no place for us. Students will undertake self-studies to understand these processes and their consequences.

253. Race, Class and Environmental Justice.

This course focuses on the distributional dimensions of environmental degradation and environmental protection, both domestically and globally. The social processes that generate synergistic racism and class stratification, impacting the distribution of ecological costs and benefits, will be explored. Substantive areas of focus will include the siting of hazardous facilities in urban and rural minority communities, the socioecological conditions of migrant farm workers, the extraction of resources from Native lands, the employment structure of hazardous industrial workplaces, population control initiatives directed at peoples-of-color, the siting of thermo-nuclear weapons testing and the national and transnational export of toxic waste to the South. The course will also examine the origins and impacts of a distinct environmental justice movement that has emerged within minority and working-class communities and its relationships to civil rights, labor and mainstream environmental movements. Written and oral course assignments will involve individual and collaborative quests for socially equitable solutions to environmental problems and ecologically sustainable solutions to racial and economic injustice. *Also offered as Environmental Studies 253 and through Caribbean and Latin American Studies.*

254. Collective Behavior and Social Movements.

This course provides a theoretical framework with which students will examine a variety of interesting topics such as crowds, riots, fads and social movements. Students are expected to research a specific instance of collective behavior (e.g. soccer riots or the rise and fall of music fashions) or social movement (e.g. civil rights). A number of different sociological theories will be examined in our efforts to understand these seemingly unpredictable phenomena.

255. On the Fringe: The Politics of Madness and Marginality.

This course focuses on the relationship between power and the social construction of marginality. Through an examination of mental illness, the body, sexuality and youth cultures (especially alienation and its manifestation in music, the educational system, suicide, violence and drug and alcohol use), students analyze the politics behind definitions of normality and marginality, examine who benefits from these definitions, explore the individual and societal consequences of these definitions and examine both strategies of control and resistance that arise out of these definitions. Prerequisite: permission of instructor.

261. Technology and Power.

This course explores where technological change comes from and where it is taking us. Special attention will be paid to virtual realities, cyborgism, information and communication, energy, transportation and bioengineering technologies. The first half of the course will focus on the actors who produce technological innovations and how specific technological changes have affected political power in America. The second half of the course will explore the more global sociological issues associated with the transfer of technologies between societies, the development of global technological systems, constraints on current technological trends and the role of “technological alternatives.”

271. Revolution.

This course explores the causes and consequences of radical social change through examination of revolution and rebellion in a variety of social contexts. The focus is on the impact of demographic, ecological, economic and technological changes on the political stability of nation-states. The course investigates the nature of the state and revolutionary contenders, focusing on their relative ability to gain or maintain power through the strategic manipulation of key resources and explores the opportunities for and constraints upon, social change in post-revolution societies. Special attention is paid to the tactics and strategies of revolt, including the use of civil disobedience, political violence, revolutionary rhetoric and strategic coalition formation. Examples will be drawn from revolutions in Africa, Asia, Eastern Europe and Latin America. *Also offered through Caribbean and Latin American Studies.*

275. Medical Sociology.

In this course we will examine a variety of aspects of health, illness, medical systems and institutions from a sociological perspective. We will look at the social causes and consequences of illness, the social construction of disease and roles played by patients, medical personnel, health institutions and society and the ethical questions they present. Attention will be paid to health policy development in the United States and comparisons to other countries, especially Canada. *Also offered through Canadian Studies.*

300. Qualitative Methods.

This writing-intensive course introduces students to qualitative methods of data collection and analysis. Moving from a discussion of general principles of social research, the relationship between theory and inductive methods and issues of contextual validity, dependability and credibility, students learn selected qualitative data gathering techniques – including social observation, open-ended interviewing and content analysis. Students gain hands-on research experience through a variety of fieldwork projects and learn to apply selected analytic techniques. Through in-class presentation of their research, students also develop familiarity with various interactive computer technologies.

301. Quantitative Methods.

This writing-intensive course introduces quantitative social research methods with an emphasis on the analysis of survey data. The first part of the course covers various topics such as model building and hypothesis construction, operationalization of concepts, issues of reliability and validity, questionnaire construction, sampling designs and data collection and processing. The remainder of the course is a hands-on, computer-based introduction to survey data analysis. Particular emphasis is placed on table construction and the application of basic measures of description and association. Hypothesis testing and other aspects of statistical inference are also reviewed and employed. There are no mathematics prerequisites and only basic arithmetic skills are assumed.

302. Visual Sociology: Analysis Through Images.

This course is about “looking” and about the power of visual representations. It is offered as one of the research methods course options available to sociology majors and, as such, is designed as a “process” course rather than a course concerned with any specific substantive area of the discipline. The course examines the use of the visual and visual representations to reveal aspects of society

operating on both the macro and micro levels. Special consideration is given to types of visual data, methodological techniques used in analysis, ethical concerns in carrying out field work projects, and technical and aesthetic issues related to form and style of presentation. Substantive questions are explored through independent projects, which, in addition to a written analysis, can be presented in one of a variety of formats including PowerPoint, Web page and video.

303. Social Theory.

The course first focuses on five macroscopic social processes, which are associated with the emergence of modernity and postmodernity: rationalization, commodification, spectacularization, embourgeoisement and globalization. Discussion will focus on the logic, origin and evolution of each of these processes as they are applied to specific forms of social organization. Second, the course explores new forms of social organization associated with postmodernity. Prerequisite: one course in sociology or permission of instructor.

309. Internships.

Internship opportunities exist in the areas of social welfare, gerontology, health care, social policy, law, criminal justice, the media and college administration. The department also encourages students to be imaginative and innovative in developing internships to meet their own interests. Internships require a commitment of eight hours a week. Students may not enroll in more than one semester of internship credit without petitioning the sociology department for approval. Permission of the internship coordinator is required. Students interested in exploring internship opportunities should contact the internship coordinator at least one week prior to course registration during the preceding semester. Not open to first-year students.

315. Family Violence.

An examination of the culturally relative and historically changing definition of family violence, specific manifestations of family violence (child abuse, spouse abuse, marital rape, abuse of the elderly, etc.) and its relationship to larger societal power arrangements, consequences of violence within the family for both individuals and the larger society, and our normative, legal and policy responses to family violence.

316. Urban Society.

This course introduces the sociological study of one of humankind's most fascinating and intriguing creations—the city. Particular emphasis is placed on structure and change in American cities. The course also highlights the impact of urban settings on human behavior. A major goal of the course is to introduce students to the basic research tools and sources of information employed by urban sociologists in their investigations of urban phenomena. Toward that end, the term project is a hands-on sociological analysis of a city of the student's choice. Among the topics to be covered: the origins and evolution of cities; the rise of urban America; structure, change, diversity and stratification of American urban centers; urban lifestyles; urban problems, such as crime, homelessness and the increasing concentration of poverty; urbanization patterns across the globe, with emphasis on developing countries; and a look at the future of cities.

319. Population and Contemporary Social Issues.

This course introduces the relationship between population dynamics and social processes. While the focus is on understanding

population characteristics (structure, size and change) and processes (births, deaths and migrations), particular emphasis is placed on how these characteristics and processes relate to contemporary social issues. Among issues to be examined are the changing roles of women and the structure of the family, the aging of the American population, the absorption of immigrants into American society, economic development in the Third World, over-urbanization in the Third World and the increasing stresses on global resources (e.g. food, water) and the environment. Population policy and planning as they relate to these issues are discussed. The course also highlights practical applications of population studies by introducing demographics through a focus on demographic applications in business planning (marketing, investment and human resource management), social planning (education, health and other social services) and political planning (campaign strategies). *Also offered through Caribbean and Latin American Studies.*

332. Postmodernism: Theory, Film and Literature.

Using films, literature and theoretical texts, this course will define and outline the characteristics of a postmodern society, explore the relationship between postmodern social theory and aesthetics and analyze the consequences of postmodernity on the construction of self. It will take into account theoretical issues such as the breakdown of grand narratives and the emergence of new discourses, the transformation of meaning to fascination, schizophrenia as the new metaphor for selfhood and the attraction of cynicism and nihilism.

334. Sociology of the Spectacle.

Guy Debord characterizes contemporary society as "an immense accumulation of spectacles" in which "everything that was directly lived has moved away into a representation." He argues that these are more than just engaging events; they also function to legitimize the use of political power and to circulate commodities necessary for the production of profit. Spectacles are determined by the logics of the cinema, the circus, the museum and the corporation, that is they are constructed out of the discourses of entertainment, education and public relations. In this course we shall examine the following spectacles: architectural formations (Times Square, the Mall of America, Las Vegas), events (the Super Bowl, the Challenger disaster), celebrities (Madonna, Marilyn Manson), theme parks and zoos (Disney World, Sea World, the San Diego Zoo), public relations discourse (legitimization advertising and marketing) and television programming (the Jerry Springer Show, Shark Week). The course is research-oriented. Students will be expected to choose a spectacle and critically map it.

335. Sociology of Advertising.

Using analytical methodologies, this course will deconstruct commodity, environmental, tourist and public service advertising. Analysis will focus on the construction of gender and race and the use of history and nature and the use of authenticity in advertising discourse. This course will also construct a critical history of advertising from the 1920s to the present, focusing on the effects of advertising on social institutions, gender relations, self-conception, the organization of everyday life and the environment.

343. Comparative Historical Methods.

This course is designed to acquaint students with important methods and works in the field of comparative and historical

sociological research. Comparative historical sociologists ask questions about large social structures or processes across time and space and take into account social and cultural differences among societies. The major agenda is to explain social change. Such methods are used to: look for causal regularities in history, use concepts to interpret history and apply general models to history. We will examine some "classics" of comparative historical methods in this course, we will analyze methods and compare work. We will read contemporary writers and discuss their agendas and approaches. Each student will also "practice" methodologies in class and in written work.

369. Making Sexualities.

Sexuality culturally operates as a central trope by which we come to "know" ourselves as sexed people (that is female or male) and how we come to understand our desire. In this course we will be unpacking the topic of sexuality from a cultural and gendered perspective, meaning that we will discuss how we have come to "know" sexuality culturally, materially and in our everyday lives. In doing so, we will explore topics such as the invention of modern notions of sexuality, queer identity, love, pornography and sex work. This will be done through reading, writing, artistic expression and research. This course is reading and writing intensive.

375. Environmental Movements.

From conservation to deep ecology, from religious millenarianism to environmental justice, from animal rights to neo-Malthusianism, from labor struggles to preservationists, from indigenous peoples' struggles to wise-use movements, from the neo-Luddites to the green technologists, environmental concerns have generated a wide variety of social movements and organizations, both domestically and globally. This seminar course will explore the origins and impacts of these distinct movements and organizations with an emphasis on their conflicting and converging goals, tactics, strategies, ideologies and constituencies. We will discuss the extent to which this eclectic assortment of interests and ideologies can be defined as a coherent social movement on regional, national and transnational levels. Each student's research will focus on a specific movement, a specific organization within that movement and the relationship of that movement to the larger array of environment-related efforts to generate social change. As a group, the class will develop, design, implement and analyze an "environmental action."

378. "Those Are Real Bullets, Aren't They?": Nationalism and Ideology, Identity and Community in "The Troubles" of Northern Ireland.

Since 1969, more than 3,300 deaths have been officially attributed to "The Troubles." The Good Friday Agreement of 1998 promised commitment to end factional hostilities in Northern Ireland. But the complex nature of the conflict continues to threaten this fragile accord. This seminar examines the historical, political, economic, religious, ideological and cultural forces that shape Northern Ireland's conflict. It examines the ways in which these forces shape, respond to and interact with identity and community, affect daily life and extend beyond the borders of Northern Ireland. *Also offered through European Studies.*

386. Comparative Regional Issues: Sociological Perspectives.

This off-campus course explores the social, economic, environmental and political dimensions of power and powerlessness in the North Country and south-central Appalachia. Students embark on a month-long journey through the two regions, conducting a comparative analysis through interaction with representatives of government agencies, private industries, social movement organizations and grassroots activities. The emphasis is on the effects of decision-making by external power holders on the lives of local citizens and the ability of these citizens to effectively fight non-local control. The literature on grassroots rebellion, economic dependency and internal colonialism is reviewed, with special attention paid to the causes and consequences of socioeconomic and ecological change. Must be taken together with Environmental Studies 363 as the Adirondack/Appalachia Program.

403. Independent Study in Sociology.

Open to exceptional students who wish to pursue more specialized or advanced sociological study and research under faculty supervision. Students wishing to enroll must find a sociology faculty sponsor and prepare a research proposal outlining the intended thesis, methodology and ethical considerations including the application for human subjects review approval where necessary. The proposal must be presented to the department for review in the semester prior to the intended enrollment. Students may not earn more than one semester of independent study credit in sociology. Permission of department chair required. *Also offered through Caribbean and Latin American Studies.*

405. Honors.

Honors will be granted to students who have a 3.5 GPA in sociology and who have completed and defended a thesis before a departmental committee.

407. Senior Seminar.

This writing-intensive course is organized around two components: a discussion of works in sociology that are both theoretically sophisticated and speak to contemporary social phenomena and the writing of a senior thesis. The purpose of this course is to serve as an integrative capstone experience in which students use both research tools and theoretical concepts of the discipline to conduct their own research. Prerequisites: two methods courses approved by the department.

463. Communities in Crisis.

An examination of human behavior in the context of social system stress brought on by the threat or impact of either geophysical (e.g., hurricanes) or technological (e.g., chemical spills) hazards. We will examine the role conflicts and strains individuals experience and their changing value priorities as people react to stress within groups ranging from the family to emergency relevant organizations such as fire departments. Relationships among organizations will be considered, as well as the roles of individuals within them. Sociological theory from the subfields of collective behavior and organizations will guide us. Permission of instructor required.

465. Environmental Sociology.

What is the "environment"? How do we know it's in trouble? Why should we protect it? What are we protecting it from? Who are we protecting it for? In this course, we will attempt to answer these

questions by exploring society's relationship to the natural environment. We will examine both the social origins of the major environmental stresses facing us today and the political conflicts that these stresses have produced. First, we will focus on the role of society's utilization of natural resources in creating these crises, as well as the way societies identify these environmental stresses as social problems. In the second part of the course we will examine the variety of social responses to environmental problems. We'll explore the ways in which these responses lead to political conflicts, through examination of the various social actors involved in resource disputes. Finally, we will examine the outcomes of environmental conflicts at local, national and international levels and will seek to develop viable solutions to real socioenvironmental problems. *Also offered as Environmental Studies 465.*

476. Globalization and Sustainability.

Globalization and sustainability are two of the most contested terms in current debates on the future of development. In this course we will seek to define these terms and explore the impacts of economic transnationalization on the potential for achieving socially and ecologically sustainable development trajectories. In a seminar discussion format, we will examine the linkages between transnational economic processes and local development, national environmental protection initiatives, and international and intra-national inequality. These discussions will be grounded in case studies of socioeconomic and environmental change in Ecuador, Tanzania and the United States. Course assignments will ask students to assess the ramifications of an increasingly transnational economy on the capacity of specific communities to achieve "sustainability." The course will conclude with an examination of the growing transnational anti-corporate globalization movement.

Speech and Theatre

Major and minor offered

Associate Professors Daniels (chair) Fuoss, Hill, Nouryeh, **Assistant Professors** Baughman, Lehman (visiting), Stanley (visiting).

The department of speech and theatre offers students a wide variety of curricular and extra-curricular opportunities to pursue interests in performance, public speaking, technical theatre, playwriting, debate, dance and the study of plays and speeches. The department produces at least two faculty-directed productions each year. Additional student-directed productions are also staged. The department's curriculum includes performance studies, applied performance, textual criticism, theatre history, public speaking, rhetorical criticism and communication studies.

Major Requirements

The major in speech and theatre is designed to encourage students to explore the performative, textual and theoretical aspects of the disciplines. This includes reading, discussion and performance of dramatic and non-dramatic texts from Western and non-Western cultures; analysis of live performances and film; scrutiny of rhetorical strategies in texts ranging from speeches to television commercials to political manifestos to music videos; and composition of original plays and speeches. Required courses balance intellectual and imaginative activities and, accordingly, provide not only the basis for an excellent education in the practical and theoretical aspects of the discipline but also the stimulus for individual growth and self-discovery.

Fulfillment of the major requires:

1. *Introduction to Disciplinary Practices* – Two units from the following courses:
 103. Stagecraft.
 107. Beginning Acting.
 111. Rhetoric and Public Speaking.
 113. Introduction to Performance Studies.
2. *Introduction to Disciplinary Texts/Methods* – Two units from the following courses:
 125. Introduction to Dramatic Scripts.
 126. Persuasion: Analyzing Rhetorical Texts.
 127. Introduction to Communication Studies.
 215. Dramatic Texts in Context.
 255. African-American Drama.
3. *Advanced Disciplinary Practices* – Two units from the following courses:
 - 200,300. Intermediate/Advanced Ballet.
 202. Sound for the Stage.
 203. Stage Lighting.
 204. Costume Design and Construction.
 207. Characterization.
 209. Acting Styles.
 211. Advanced Public Speaking.
 214. Group Performance.
 216. Argumentation and Debate.
 223. Playwriting.
 244. Techniques of Screenwriting.
 306. Advanced Screenwriting Workshop.
 309. Directing.
 - 313,413. Special Topics in Advanced Disciplinary Practice.
 340. Performance Art.

4. *Advanced Analysis of Disciplinary Texts/Methods* – Two units from the following courses:
 - 312,412. Special Topics in Advanced Disciplinary Texts.
 316. Communication Theory.
 317. Performance Criticism and Theory.
 - 319,320. Shakespeare.
 321. Greek Theatre and Drama.
 322. Native American Oral Traditions.
 323. African Drama.
 324. Elizabethan/Jacobean Drama.
 326. American Public Address.
 329. Rhetoric of Social Movements.
 335. Modern Continental Drama.
 338. 20th-Century Avant-Garde.
 350. 20th-Century Realism.
 355. Studies in World Dramatic Literature.
5. *Senior Project or Senior Seminar*. Students, in consultation with a faculty advisor, must either complete a senior project (479,480) or a senior seminar (430). Guidelines for senior projects are available through the department secretary. Students may enroll for senior project credit only after their senior project proposal has been approved by departmental faculty.

Minor Requirements

Fulfillment of the minor requires:

- One unit from Section 1 above.
- One unit from Section 2 above.
- One unit from Section 3 above.
- One unit from Section 4 above.
- One additional unit of the student's choice from any section above.

Students should consult a current *Class Schedule* for the availability of courses cross-listed with English or gender studies that may be taken for credit under the speech and theatre major or minor.

Honors

To graduate with honors, a student must get at least a 3.5 on the senior project or senior seminar, as well as maintain a 3.5 GPA in departmental courses and a 3.0 GPA overall.

Courses

100. Beginning Ballet.

Fundamentals of classical ballet including barre, center work and across-the-floor movements with emphasis on body alignment and elements of ballet style. Material is presented in a progression from basic to more complex. Lectures consist of pertinent references to dance history, terminology, movement theory and dance films illustrating related subject matter. Elective only; does not count toward completion of major or minor.

101. Production Credit.

This is a practicum credit for acting in, assisting the director of or performing dramaturgical support for faculty-directed productions in the University Theatre. Students will be selected through the regular production audition process and credit will be determined in advance of auditions, based primarily on the size of the role or function and the time commitment involved in preparing/rehearsing and performing it. The faculty director of each production will set available credit units at either .25 or .5; a student may take up to 1 unit of Speech and Theatre 101. However, it is not necessary to take the credit to participate in the productions. Pass/fail grading only. Elective only, does not count toward completion of major or minor.

103. Stagecraft.

The study and practice of creating scenery for the stage, this course also explores the operation of the theatre's physical plant. Material is presented in lectures and is further illustrated through the activities of the production studio.

107. Beginning Acting.

An introduction to the basic mental and physical skills used in acting, including use of imagination, understanding of the self, character analysis, body flexibility and expression and voice and diction. Coursework includes exploratory and centering exercises, improvisational techniques and scene and monologue study.

111. Rhetoric and Public Speaking.

An introduction to the art and skill of public speaking, focusing primarily on the construction and critique of persuasive discourse. Students study the classical rhetorical tradition as a continuing influence on the contemporary theory and practice of persuasion.

113. Introduction to Performance Studies.

The course engages students in the analysis and performance of texts other than dramas (e.g., poems, short stories, personal narratives). The course emphasizes analysis of the dramatic situation in texts, process-centered workshops and performance criticism.

125. Introduction to Dramatic Scripts.

Students are introduced to the formal aspects of play texts and develop the requisite critical skills necessary to read plays and critique live and video performances. Representative dramas from the Greeks to the present are investigated in terms of character development, dialogue, settings and central ideas, as well as their original theatrical contexts—theatre architecture, stage conventions, scenic devices, costuming and acting tech-

niques. The emphasis in this course is on analysis of scripts in terms of the relationship among performance conditions, cultural context and dramatic conventions. *Also offered as English 125.*

126. Persuasion: Analyzing Rhetorical Texts.

This course is designed to foster increased awareness of the diverse forms and functions of persuasion in contemporary society and to improve students' ability to function as discriminating consumers of rhetorical texts. While the course includes extensive reading and analysis of public speeches, it is also intended to heighten student awareness of the presence of persuasive intent in texts not traditionally considered rhetorical, e.g., poems, plays, songs, paintings, music videos and news broadcasts.

127. Introduction to Communication Studies.

Why do women employ tag questions (e.g., "Don't you agree?") at the end of statements more frequently than men? How, why and to whom do we reveal intimate information about ourselves? What stages do relationships go through and what features characterize the communication that takes place in each of these stages? This course addresses these and several other questions concerning human communication. Through lectures, workshops and group projects we will focus on the practical, daily business of interacting with other people. We will examine two broad areas of communication: interpersonal communication and small group communication. Learning to interrogate how we say what we say and why leads to a better understanding of the ways we present ourselves and interact with those people around us.

200, 300. Intermediate/Advanced Ballet.

Continuation of Speech and Theatre 100 and for students with previous experience in classical ballet. More advanced movement studies with emphasis on classical line, body alignment, projection and quality of movement. Prerequisite: Speech and Theatre 100 or permission of instructor.

202. Sound for the Stage.

This course will explore some of the artistic and practical aspects of using sound in support of theatrical productions. The course will employ concepts of design drawn from the theatre and apply those concepts to the choice of music and sound effects for the stage. It will explore the potential of sound and music for the reinforcement of dramatic content and production design concepts. In addition, the course will introduce the student to the production organization common to most theatre productions: the collaborative design process and the team approach to production assignments. The course's practical assignments will provide support for the production needs of the departments of music and speech and theatre and will include the use of audio equipment and software programs for the recording, editing and playback of sound. *Also offered as Music 202.*

203. Stage Lighting.

An investigation of theatrical lighting equipment and its applied use. A study of design concepts and theories used in producing drama, concerts and dance on the modern stage. The course includes a study of basic electricity, lighting instruments, computerized lighting control and design procedures. Materials are presented in a lecture/demonstration format and are further explored in the lighting lab and departmental productions.

204. Costume Design and Construction.

This course explores the artistic and practical aspects of designing costumes for performance. Through a series of projects students will analyze the costume requirements for various plays, research period fashions and develop costume designs for specific characters and productions. Throughout the course we will discuss working with directors, collaborating with other designers, locating resources, planning and budgeting for a show. The lab component of the course will focus on sewing and patterning skills, selecting fabrics and a variety of craft techniques including mask making, millinery and fabric dyeing.

207. Characterization.

An intensive study of the acting process building on skills developed in beginning acting. The course focuses on character development in psychological realism and is intended to expand the actor's range with both scene and monologue work, as well as to expand skills in voice/body integration to create character and analysis and script scoring techniques. Prerequisite: Speech and Theatre 107.

209. Acting Styles.

A concentrated study of three theatrical styles: Greek tragedy, Elizabethan drama and comedy of manners. The course includes reading and research on the theatre and culture of each historical period, followed by an intensive exploration of their vocal and physical styles through guided improvisations, exercise and scene study. Prerequisite: Speech and Theatre 107.

211. Advanced Public Speaking.

Intensive study of the principles and practices of researching, organizing, writing, delivering and criticizing persuasive speeches. Students employ contemporary theories of persuasion to analyze a variety of rhetorical situations. Students construct persuasive speeches for different speaking situations in order to develop critical and practical skills. Prerequisite: Speech and Theatre 111.

212, 213. Special Topics in Disciplinary Texts or Practice.

This course is designed to allow students' needs to dictate the availability of certain introductory level courses not always offered by the department. May occasionally fulfill major requirements.

214. Group Performance.

This course focuses on the process of adapting and staging non-dramatic texts (e.g., novels, short stories, poems) for group performance. The class emphasizes the process of selecting, adapting, scripting and rehearsing texts for group performance. Scripting and performance work includes choral reading, installations, chamber theatre, rituals and social activist performances. Prerequisite: Speech and Theatre 107 or 113.

215. Dramatic Texts in Context.

How does a director decide what play to do and the style in which to do it? Answers to these questions are the guiding principles for the investigation of staging practices and plays that span from ancient Greece to those of 19th-century Europe. Students examine how theatrical spaces, scenery and props altered the theatre-going experience. In the end, we focus attention on how knowing the theatrical and cultural contexts of plays can help theatre practitioners make informed choices. *Also offered as English 215 and through European Studies.*

216. Argumentation and Debate.

Study of the nature and functions of argument: the classical and contemporary concepts of rationality, truth, knowledge and models or argument; and the evaluation of argument in formal and ordinary language situations. Students participate in several argumentation and debate assignments to develop critical and practical skills.

223. Playwriting.

This course explores the processes of composition characteristic of the playwright. In a series of weekly assignments, various aspects of the art are introduced, e.g., characterization, dialogue, dramatic action and others. The course concludes with the writing of a one-act play. Students read exemplary plays from the modern repertoire. *Also offered as English 223.*

226. Japanese Drama.

A study of Japanese drama in its historical, theatrical and literary aspects from the classical theatres of Noh, Kabuki and Bunraku to the modern New Theater and avant-garde experiments. The growth and characteristics of each theatre are examined as a living tradition in the broad cultural context of Asia, Japan and the West, with the use of films. Readings are in English. Elective only, does not count toward completion of major or minor. *Also offered as Literature in Translation 226.*

244. Techniques of Screenwriting.

An introductory study of basic technical problems and formal concepts of screenwriting. The study of produced screenplays and formal film technique, along with writing scene exercises, builds toward the construction of a short (50-minute) script. *Also offered as English 244.*

252. Survey of Feature Films.

A historical survey of the full-length fiction film from its beginnings to the present. Films shown in the first part of the course demonstrate the development of the language of film and some of the major techniques of filmmaking. Examples of various genres are given: the horror film, the comedy, the western, film *noir*, science fiction, etc. Elective only, does not count toward completion of major or minor.

255. African-American Drama.

African-American drama is a tradition that has unique themes and forms with sources in African ritual, language; gesture and folklore; the Southern Baptist Church; the Blues; and jazz. Through this course, students will examine plays, read essays, view videos and listen to music to discover the qualities that make this drama a vital resource of African-American culture and an important social and political voice. Playwrights include Amiri Baraka, Adrienne Kennedy, George C. Wolfe, Alice Childress, Ntozake Shange, Ed Bullins and August Wilson. *Also offered as English 255.*

306. Advanced Screenwriting Workshop.

An extension and intensification of English 244. Students are expected to work independently on the preparation of two feature-length screenplays. Workshop format emphasizes the revision and editing process. Prerequisite: Speech and Theatre 244. *Also offered as English 306.*

309. Directing.

This course provides the advanced student with practical skills and an understanding of directing methods, including intensive script analysis, concept development and articulation, composition/picturization and collaboration with other theatre artists. Prerequisites: Speech and Theatre 107 or 113 and 125 or 215; or permission of instructor; Speech and Theatre 103 is recommended.

**312, 412. Special Topics in Advanced
Disciplinary Texts.**

This course is designed to allow students' needs to dictate the availability of certain courses not always offered by the department. Topics might focus on dramatic theory and criticism, rhetorical theory and criticism, the plays of a particular author or the speeches of a particular person or period.

**313, 413. Special Topics in Advanced
Disciplinary Practices.**

This course is designed to allow students' needs to dictate the availability of certain courses not always offered by the department. Topics might focus on voice and movement for the theatre, performance art, the performance of farce or the performance of nonfiction texts.

316. Communication Theory.

This course surveys contemporary theories and principles of human communication and complements this inquiry with practical exercises designed to test and explain the theories. Course material focuses on interpersonal communication, non-verbal communication, mass communication, intercultural communication and the relationship between gender and communication. Prerequisite: Speech and Theatre 127 or permission of instructor.

317. Performance Criticism and Theory.

This course explores the nature and diversity of performance activities. Students read and discuss texts by a variety of performance theorists (e.g., Brecht, Grotowski, Turner, Schechner). Interdisciplinary in perspective, the course examines a number of intellectual relationships (e.g., between performance and ethnography, semiotics, feminism and politics). Prerequisite: Speech and Theatre 107, 113, 125 or 215 or permission of instructor.

319, 320. Shakespeare.

An intensive study of Shakespeare's plays; 319 concentrates on Shakespeare's histories, comedies and romances, while 320 focuses on the tragedies. Prerequisites: Speech and Theatre 125 or English 110 and one 200 level English literature course; or two 200 level English courses. *Also offered as English 319, 320.*

321. Greek Theatre and Drama.

An introduction to the theatre of ancient Greece and to the plays of Aeschylus, Sophocles, Euripides and Aristophanes. Prerequisites: Speech and Theatre 125 or 215, English 110 or 190 or permission of instructor. *Also offered as Literature in Translation 321 and through European Studies.*

322. Native American Oral Traditions.

This course examines the oral literatures of Native Americans and the incorporation of the oral tradition into written texts. Native American oral traditions are examined using written texts, videos and live performances. With a focus on origin stories, mythic

heroes, personal narratives and contemporary poetry and fiction, the course considers Native American views of storytelling, family, religion/cosmogony and language. *Also offered through Native American Studies.*

**323. African Drama: Voices of Protest
and Selfhood.**

This course introduces students to the theatrical developments in South Africa, Nigeria and Ghana through the works of such internationally known playwrights as Athol Fugard, Wole Soyinka, Efua Sutherland and Mbongeni Ngema. The purpose is to foster awareness of the potency of drama for political protest and for social change in post-colonial Africa. Issues about apartheid, as well as the challenge of technocracy and European values to traditional beliefs and customs, are the primary focuses for study. *Also offered as English 323 and through African Studies.*

324. Elizabethan and Jacobean Drama.

A study of the dramatic tradition of the late 16th and early 17th centuries in England, exclusive of Shakespeare. Includes the works of such playwrights as Thomas Kyd, Christopher Marlowe, John Webster, Thomas Middleton and Ben Jonson. Prerequisite: Speech and Theatre 125 or 215, English 110 or 190 or permission of instructor. *Also offered as English 324.*

326. American Public Address.

A study of American history through examination of the speeches of spokespersons for social, political, legal and religious institutions and movements. From Thomas Jefferson to George Bush, from Susan B. Anthony to Phyllis Schlafly, from George Wallace to Martin Luther King Jr.: a study of the impact of rhetorical strategies upon ideas and events and of ideas and events upon rhetorical strategies.

329. Rhetoric of Social Movements.

This course examines the rhetorical strategies employed in contemporary American social movements (civil rights, Vietnam/anti-war movement, women's liberation, American Indian Movement and gay and lesbian rights). Cultural texts, speeches, manifestos, sit-ins, marches and songs drawn from each of these calls for change are examined and interpreted using a variety of rhetorical theories.

335. Modern Continental Drama.

This course traces the rise of dramatic realism from its beginnings in Germany during the Enlightenment through the liberation of the Parisian theatres after the French Revolution and including the experiments by various authors in several genres that led up to the flowering of realist drama in the major plays of Norwegian dramatist Henrik Ibsen. The purpose of the course is to arrive at an understanding of what constitutes realism in drama, considered as a convention. Along the way, the class reads plays by Goethe, Buchner, Kleist, Hebbel, Hugo, Ibsen, Strindberg, Chekhov and Shaw. Prerequisite: Speech and Theatre 125 or 215, English 190 or permission of instructor. *Also offered as Literature in Translation 335 and through European Studies.*

338. 20th-Century Avant-Garde.

Students are exposed to theoretical writings, dramatic texts and performances that reflect the continuing experimentation in the theatre since the 1890s. Students examine artistic reactions to a post-Darwinian and post-Freudian worldview and are exposed to

the various methods in which playwrights and theatre practitioners have grappled with finding new ways of articulating what it means to be human in an industrialized world. Prerequisites: Speech and Theatre 125 or 215, English 190, or permission of instructor. *Also offered as English 338 and through European Studies.*

340. Performance Art.

The question "What is performance art?" has vexed theorists, critics and practitioners. While some view performance art as a reaction against the strictures of the theatre, others see it as a commodification in the art world. While some view it as an assault on bourgeois high art, others see it as an assault on good taste and basic moral values. In this course students will read essays about the historical tradition of performance art and the relationship between performance art, theatre, dance and the visual arts. We will also consider the work of a variety of contemporary performance artists: Karen Finley, Spaulding Gray, Laurie Anderson, Rachel Rosenthal and Pina Bausch. But most of all, students will learn about performance art by doing it—by engaging in the process of creating and producing their own performance art pieces.

350. 20th-Century Realism.

After Ibsen, realistic drama continued to be written by other dramatists in continental Europe, Great Britain and the United States. In this course students observe how different playwrights used the form of realism: as a vehicle for social and political ideas, as an instrument for expressing "folk" consciousness and as the formal basis for experience conceived symbolically or lyrically. Plays are selected from the works of dramatists such as Lorca, O'Neill, Hellman, Williams, Miller, Wilson, Synge, O'Casey, Hare, Kroetz, Osborne, Hwang and Pinter. Prerequisite: Speech and Theatre 125 or 215, English 110 or 190, or permission of instructor. *Also offered as English 350 and through European Studies.*

355. Studies in World Dramatic Literature.

The study of dramatic literature primarily produced outside the United States and Great Britain. Focus may be upon cultural coherence (e.g., Francophone dramatic literature), discrete dramatic movements on a particular continent (e.g., South African drama), shared thematic concerns (e.g., the role of women) or a period-specific examination of non-Anglo drama. Prerequisite: Speech and Theatre 125 or 215, English 190 or permission of instructor.

400. Independent Study in Ballet.

Supervised research or project on an independent basis. Prerequisite: permission of instructor. Elective only, does not count toward completion of major or minor.

430. Senior Seminar in Speech and Theatre.

Advanced study in areas of special interest, e.g., a playwright, a genre of dramatic composition, an area of communication or rhetorical studies. Prerequisite: permission of instructor.

480. Senior Project.

The senior project is a capstone designed to allow students to demonstrate their ability to synthesize the analytical and practical skills associated with the discipline. Only those students who have had their senior project proposal approved by the department may register for this course.

490. Independent Study.

Supervised research on an independent basis. Students wishing to register for independent project credit must submit a proposal for approval before registering for this course. Proposals are due two weeks before the end of classes in the semester before you wish to do the independent study. Proposal guidelines are available in the Griffiths Arts Office (GR 109); proposals should be submitted directly to the faculty member you wish to supervise the independent study. Only juniors and seniors may propose independent projects. Prerequisite: permission of department chair. Elective only, does not count toward completion of major or minor.

Student Life

Arts and Cultural Offerings

The opportunities described below are augmented by frequent concerts, exhibits, performances and shows provided by outside performers.

Music

The music department supports three vocal and two instrumental ensembles. Laurentian Singers, an undergraduate chorus that tours each spring, University Chorus and the Early Music Singers provide vocal opportunities for St. Lawrence students. Instrumentalists may choose between participation in the Early Music Ensemble and the Special Productions Ensemble. The Early Music Ensemble uses the Emily Romer Collection of medieval and Renaissance instruments to perform music of the 12th through 18th centuries. Each semester the department offers a Special Production, focusing on a particular instrumental repertoire. Recent productions have included *Music After the Civil War*, a Latin Dance Party, *Music for Louis XIV* and *Traditional Irish Music*. Private instruction is available in voice and on keyboard, guitar, brass, woodwinds and strings.

Two informal student-directed *a cappella* groups, The Saints and The Sinners, are active both on and off campus. A student-directed pep band performs during some hockey seasons.

Theatre

The speech and theatre department stages annual faculty-directed productions in Gulick Theatre, a proscenium theater seating 511. In addition, the flexible 85- to 100-seat Edson Miles Theater (better known as the Black Box) is also used for productions. Guest artist workshops that address all aspects of theatre are offered for interested students. Though some production work is associated with classes, it is not necessary to be a major, or even currently enrolled in speech and theatre classes, to participate.

Art

The University art collection contains nearly 7,000 objects, photographs and paintings, which are frequently displayed in the Richard F. Brush Art Gallery and used for tours and classroom discussion. See pages 33-34 in the Curriculum section for a complete description of the University's permanent art collection, the Brush Gallery and University art programs.

Concerts and Lectures

The University supports a diversified schedule of cultural programs throughout the year. The Student Activities Fund provides much of the funding for these programs, and the events, with few exceptions, are open without charge to all members of the community.

St. Lawrence University Festival of the Arts

The St. Lawrence University Festival of the Arts is intended to stimulate creative activity in the college community by bringing to the campus eminent figures in the arts and featuring performances by instrumental, choral, dramatic and dance groups, films, art exhibits and workshops. Performances in past festivals have been given by Richie Havens, Buffy St. Marie, Ballet Hispanico, the American Indian Dance Theater, James Dickey and Lawrence Ferlinghetti. Recent themes of the festival have included Art and the Vietnam Era, Afro-American Art, Art in Central America, Native American Art, Gay and Lesbian Art and "Green" Art.

Athletics and Recreation

St. Lawrence University provides a comprehensive program of intramurals, recreation, sport and physical activity clubs, outdoor recreation and intercollegiate athletics. These provide extensive opportunities for students to engage in physical activities. Excellent facilities exist on and near the campus.

The intramural program includes soccer, volleyball, beach volleyball, street hockey, basketball, broomball, ice hockey, indoor soccer and softball. Many of these activities are coeducational. The recreation program fosters spontaneous participant involvement and includes badminton, racquetball, squash, table tennis and a variety of outdoor activities like quadatholons, cross-country skiing, snowshoeing, etc. Special events such as golf tournaments, mountain bike races and three-on-three basketball tournaments are also popular.

Sport and physical activity clubs provide students with a variety of opportunities for both competition and participation. Clubs are initiated by groups of students who share the same physical activity interests and take on the responsibility for organization. Sport clubs conduct practices and schedule competitions against other universities. Popular sport clubs are men's and women's rugby, golf, ultimate frisbee and men's ice hockey. Popular physical

activity clubs include cycling, figure skating, yoga, karate, running and snowboarding.

The outdoor program offers a variety of opportunities for outdoor recreation ranging from hiking, camping, cross-country skiing and rock climbing to canoeing and kayaking. It also operates an extensive low and high ropes "challenge" course and indoor climbing wall. Both are designed to give campus and community groups a dynamic and exhilarating method of enhancing teamwork, communication and self-knowledge.

Instructional programs are offered for a variety of physical activities, including racquet sports, outdoor recreation experiences, golf, aquatic activities, self-defense and martial arts.

The University fields 32 intercollegiate teams. Intercollegiate teams for men include baseball, basketball, crew, cross-country, football, golf, ice hockey, lacrosse, skiing, soccer, squash, swimming, tennis and track and field (indoor and outdoor). Intercollegiate teams for women include basketball, crew, cross-country, field hockey, golf, ice hockey, lacrosse, skiing, soccer, softball, squash, swimming, tennis, volleyball and track and field (indoor and outdoor). An intercollegiate equestrian team comprises both men and women.

Career Services and Leadership Education

The career services and leadership education office at St. Lawrence University offers students individualized career counseling and advising. Professional staff members help students discover and pursue their career goals while concentrating on the benefits of a liberal arts education. Students have an opportunity to assess their skills and abilities related to career exploration and career decision-making.

The career services and leadership education office is located in a spacious, 3,000-square-foot facility including a comprehensive career resource library, audiovisual materials, interviewing rooms, graduate school library, counseling offices, student space and a student reception/study area.

Career services and leadership education offer students several innovative programs and services on and off campus. The St. Lawrence Intern-Network program allows students to explore excellent pre-professional opportunities to gain experience before graduation. The alumni career advisor network of 3200 members provides students with networking capabilities to make important contacts for career advice and employment possibilities. In addition to our on-campus recruiting program, we facilitate job search fairs in New York and Boston for senior students.

The successful outcomes of the St. Lawrence experience are revealed in our annual follow-up study. The latest report found that 95.3 percent of the graduating class secured professional employment (79.8%) and/or pursued graduate studies (15.4%) within one year of graduation.

Co-Curricular Education and Programming

A special student activities fee, voted by the undergraduate members of the campus community, is paid by all matriculated students. The University collects the fee for disbursement by the student government. Activities covered by the activities fee include publications, cultural events and campus-wide entertainment, the campus radio station and photography service, and special service and interest organizations.

The director of co-curricular education and programming, whose office is in the E.J. Noble University Center, and other student life personnel are available to help students with organizational techniques and educational program planning.

Organizations and Societies

Student Government

The *Thelomathesian Society* (popularly shortened to "Thelmo") is the student self-governing body. Students elect the executive branch as well as representatives from residential units.

The *Student Judiciary Board* (J-Board) is a student-operated body that adjudicates cases of student misconduct.

Omicron Delta Kappa (ODK) is a national leadership honorary with members selected based on their academic standing and involvement both on and off campus.

Academic Honorary Societies

An active chapter of *Phi Beta Kappa* has been in existence at St. Lawrence since 1899. Typically, the top eight to 10 percent (in terms of class rank) of each graduating class are elected to membership by the faculty and staff members of the chapter. National or local departmental recognition societies include:

- Lambda Alpha (anthropology)
- Beta Beta Beta (biology)
- Chymist Club (chemistry)
- Omicron Delta Epsilon (economics)
- Irving Bacheller Society (English)
- Fine Arts Honorary
- Pi Delta Phi (French)
- Delta Phi Alpha (German)
- Pi Sigma Alpha (government)
- Gamma Sigma Alpha (Greek societies)
- Phi Alpha Theta (history)
- Pi Mu Epsilon (mathematics)
- Ives Society (music)
- Sigma Pi Sigma (physics)
- Psi Chi (psychology)
- Religious Studies Honorary
- Alpha Kappa Delta (sociology)
- Sigma Delta Pi (Spanish)
- Delta Sigma Rho/Tau Kappa Alpha (speech)
- Mummings (theatre arts)

Clubs and Organizations

Approximately 90 clubs and organizations that reflect student interests exist on campus. Many of these receive funding from the Thelomathesian Society Senate for annual activities. For information on forming a group, students may contact the director of co-curricular education and programming.

Greek Organizations

St. Lawrence University has four sororities and four fraternities. The University owns and

maintains four fraternity houses and one sorority house. The Panhellenic and Inter-fraternity councils coordinate and oversee the activities of the Greek organizations.

Journalism and Communication Organizations

The University provides opportunities for several kinds of experience in journalism and communication:

- *The Hill News*—the campus newspaper.
- *Gridiron*—the annual yearbook.
- *The Laurentian*—periodic literary magazine.
- *The Stump*—periodic magazine created by students, featuring editorials and news analysis.
- KSLU—a student-operated cable FM radio station.
- North Country Public Radio (WSLU-FM)—a campus-based National Public Radio affiliate, which occasionally offers internships or work experience to students.

Counseling Services

Counseling services works within a wellness model, a positive approach to life and health. This is an approach to counseling that looks to maximize an individual's potential and to help the student be successful in all areas of life. A variety of services are provided to help students grow as whole individuals.

Individual counseling provides an opportunity for self-focused exploration of feelings, attitudes and behaviors.

Group counseling offers the experience of interacting meaningfully with others in a supportive environment. Sessions may be arranged around a common issue or topic and vary from semester to semester.

Small-group workshops allow counseling services staff to work with students and others to plan and present various programs of interest throughout the year.

A resource library offers a variety of self-help books and tapes that may be used in the office or checked out for extended use.

All records and information are confidential in accordance with professional and ethical guidelines. Services provided by counseling services are free to St. Lawrence students.

Health Program

The Winning Health Center, located at the center of campus, contains a medical clinic that provides outpatient care for students with ambulatory illnesses and injuries. Physicians, nurse practitioners and registered nurses staff the center.

Medical specialists are available in the area in the event that referral is necessary or if the student wishes to make his or her own arrangements. Students may have to assume the financial responsibility of such visits unless they are covered by insurance.

Hospital services are available in nearby Potsdam, Ogdensburg and Watertown and also at healthcare facilities in Syracuse and in Burlington, Vermont.

The purchase of accident insurance through the University policy is mandatory unless verification is presented that the student is covered by a comparable policy. Sickness insurance is optional. (See also Accident and Sickness Insurance, page 191.)

Leadership Academy and Center for Collegiate Volunteerism

Student leadership and community service at St. Lawrence University happen through a variety of intentionally designed programs, activities and opportunities. The overriding goal of the leadership academy and the David Garner Center for Collegiate Volunteerism is to create co-curricular opportunities for students to learn, develop and practice principles of ethical leadership and service to others. Programs targeted at students' needs and interests are offered throughout the year. The leadership academy makes a special effort to reach out to first-year students to get them connected with

other student organizations on campus. The volunteer center coordinates community and campus service projects as well as an alternative spring break. Anchored in the belief that all of our students will at some point be in positions of leadership, leadership and volunteer programs are open to the entire student body. Our newly renovated lounge in the Hulett-Jencks commons area provides an ideal gathering space for representatives from our theme halls, first-year councils and other leadership and volunteer organizations on campus.

Multicultural Affairs

The director of multicultural affairs works with students, staff and faculty to foster a cooperative, diversified and productive atmosphere at St. Lawrence University. The director works with the faculty to develop a greater multicultural perspective in curriculum, residential and social programs. The director assists students from various ethnic, social and cultural backgrounds in a smooth transition from high school to college life in the North Country.

New Student Orientation

New student orientation takes place in the fall semester for first-year, transfer, visiting and special students. First-year students take part in a comprehensive program that introduces them to the academic, residential and social expectations of St. Lawrence University. Students meet with their academic advisors during orientation to plan their academic program. A mid-year orientation is offered for students entering in January.

Prizes and Awards

Many departments and departmental honorary societies award prizes in recognition of outstanding achievement in scholarship. Student organizations give suitable recognition to those who have excelled in leadership and service. Many of these prizes and awards are

presented at convocation, which is held on Moving-Up Day, usually the last Saturday in April.

Residential Learning Communities and Housing

St. Lawrence is a four-year residential university; the residential experience is integral to the educational process. Students are required to live in University residence halls, theme cottages or Greek chapter houses during each semester at the University. Residential living provides students with experience in self-governance, individual and social responsibility and tolerance of different lifestyles and values. The residential program seeks to provide an enriched environment conducive to the personal growth of each student.

Each residential area has a residential coordinator (RC) who aids in the development of community. RCs provide supervision, leadership and support for the residents in their units and perform administrative duties pertaining to their buildings. Community assistants (CA) are undergraduate students who assist RCs. CAs are selected to provide further leadership and support in the area in which they live.

Residence Hall Access Control

Students have access to the residence halls 24 hours a day, seven days a week, using ID cards that are distributed at the beginning of the academic year. At the main access points of each residence hall are Card Access Readers and emergency phones; to gain access, students present the ID card six to 12 inches from the reader and the door will unlock. Alarms ring when a door is left unsecured for a short length of time. The officers on patrol respond to the location of alarms and investigate the cause.

First-Year Options

All first-year students live in residential colleges of the First-Year Program. These are

buildings or wings of buildings where 36 to 50 students live together and enroll in a common course. Most of the rooms are doubles. The residential environment and the course reinforce one another to create a broad educational experience. A professional RC and upperclass CAs provide supervision.

Upperclass Options

All upperclass students live in one of three housing options: residence halls, cottages or Greek chapter houses. The majority of upperclass students live in residence halls, where most floors are coeducational. Singles, doubles, triples and quads are available and there are suites in a two-building complex. Room assignments are made on a class year priority basis.

Theme suites and cottages are available for groups with special common interests. Groups must apply in the spring semester for the following year. Among thematic options are:

The *International House*, which is available to residents who have studied or plan to study abroad, have interest in international affairs or are international students studying at St. Lawrence. The *Intercultural House*, which is a living/learning center devoted to engaging faculty and students in the study of cultural diversity and the critical practices that are promoted. A *Scholars' Floor* and a *24-Hour-Quiet Floor* are also offered. *Commons College* is designed for upperclass students interested in an interdisciplinary course that is developed by the residents.

St. Lawrence has Greek chapter houses for four fraternities and four sororities.

Because St. Lawrence is a residential college, off-campus housing is generally limited to commuter students living with their families.

Room Occupancy

Requests for housing will be honored to the extent possible, and the director of residential learning communities and housing may initiate changes in room assignments for a variety of reasons. Housing assignments are made without discrimination by reason of race, gender,

religion, age, sexual orientation or national or ethnic origin.

Opening and closing dates are announced well in advance of all official vacations.

Automobiles

St. Lawrence is a "walking campus," designed to promote an attractive, safe and accessible environment. A series of parking areas on the perimeter of the campus provides parking space for faculty, staff, students and guests.

To park on campus, students must obtain a \$25 car registration permit from the office of security and safety. Violation of University parking policy may result in disciplinary action, including fines and loss of on campus driving privileges.

Dining Services

All students living in college residences take their meals in Dana Dining Center or in the Northstar Pub in E.J. Noble University Center, Augsbury Café or Jack's Snack Shoppe. Exceptions to this policy may be granted by the director of dining services. The University dietician will work to meet the needs of students with special dietary requirements.

Personal Property

St. Lawrence University assumes no responsibility for students' personal property in college residences. Students are encouraged to maintain insurance on their personal property. Limited summer storage is available under student government auspices and the University assumes no liability if items are lost or stolen.

Spiritual and Religious Life

St. Lawrence is a non-sectarian university that recognizes the significance and diversity of the religious and spiritual experiences of the campus community. The University views spiritual exploration as an integral part of its educational mission and it seeks to enhance that mission by fostering a campus climate that honors all while privileging none.

The University provides a cooperative organizational structure within which groups representing many spiritual traditions can find expression. A multi-faith student council, working with the chaplain and the spiritual and religious life committee, plans multi-faith common rituals and programs. The council encourages the formation of new groups and also welcomes the expression of individual faith seekers. The multi-faith advisory board, composed of advisors to the Catholic Campus Ministry, the Buddhist Meditation group, Hindu students, Jewish Student Union, Protestant Ministries and the First-Year Program, meets periodically to discuss common interests, goals and programs. Interservice Christian Fellowship, the Jewish Student Union, local religious communities, the Protestant Ministries Team and the St. Thomas More Catholic Campus Parish all, in cooperation with the spiritual and religious life committee, serve members of the University community.

Veterans' Affairs

St. Lawrence University is fully approved by the New York State Education Department for education of veterans, as provided in several acts of the U.S. Congress. The registrar acts as coordinator of veterans' affairs, and all inquiries about registration under veterans' benefits should be addressed to the registrar. To be eligible for VA subsistence, a veteran is required to submit a Certificate of Entitlement.

Policies

Social Responsibility

All students are bound by the University's Code of Social Responsibility. Each student is expected to conduct him- or herself with discretion, regard for propriety and respect for others. The University's purpose is to develop personal initiative supported by maturity and judgment so students may learn to understand their responsibilities for themselves. Those who are unable or unwilling to participate in the community life on this basis may be asked to withdraw, or re-registration may be refused.

The University, through its judicial channels, reserves the prerogative to terminate a student's enrollment at any time.

Honor Code

St. Lawrence University's Student Code of Academic Honor states, "All students at St. Lawrence University are bound by honor to maintain the highest level of academic integrity. By virtue of membership in the St. Lawrence community, every student accepts the responsibility to know the rules of academic honesty, to abide by them at all times and to encourage all others to do the same." Violations of the code are administered under the constitution of the Academic Honor Council.

Nondiscrimination Policy

All members of the St. Lawrence community are valued equally. We are committed to multicultural diversity in our faculty, staff, student body and curriculum. Awareness training for students, faculty and staff is designed to eliminate all forms of discrimination. St. Lawrence University subscribes fully to all applicable federal and state legislation and regulations (including the Civil Rights Act of 1964; Title IX of the Educational Amendments of 1972; Section 504 of the Rehabilitation Act of 1973; the Americans with Disabilities Act; the Age Discrimination in Employment Act; the Age Discrimination Act of 1975 (ADEA); New York State Human Rights Law; and Part 53, Section 607 of the New York State Educational Law) regarding discrimination, as well as the Drug Free Workplace Act of 1988. The University does not discriminate against students, faculty, staff or other beneficiaries on the basis of race, color, gender, religion, age, disability, marital status, sexual orientation or national or ethnic origin in admission to, or access to, or treatment or employment in its programs and activities. St. Lawrence University is an Affirmative Action/Equal Opportunity Employer. For further information contact St. Lawrence University's Age Act, Title IX, and Section 504 Coordinator, Susan M. Cypert, Special Assistant for Equity Programs, Vilas Hall, St. Lawrence University, Canton NY 13617, 315-229-5584.

Discriminatory Harassment Policy

St. Lawrence University provides for the development of a climate of tolerance and pluralism and prohibits expressive behavior that is intended to be demeaning, intimidating or hostile, communicated verbally, physically or with other communication device, including telephonic or electronic means. It is expressly against University policy for any employee or student to engage in discriminatory harassment, which is defined as any demeaning, intimidating or hostile verbal, physical or symbolic behavior that is directed at an identifiable individual or group and that is based on that individual's or group's race, religion, ethnicity, age, gender, national origin, disability or sexual orientation, and has the effect of interfering with a reasonable person's academic or work performance or of creating an intimidating or hostile situation or environment. Such behaviors include, but are not limited to, the use of slurs, epithets, gestures, demeaning jokes or derogatory stereotypes.

This policy is not intended to proscribe, and should not limit free discussion of, the merits of any issue relating to ethnic, racial, religious or other multicultural difference or open inquiry into any material or issue relevant to the academic content of a course.

Not all offensive conduct or language that might be derogatory concerning an individual or group necessarily constitutes discriminatory harassment. Whether a specific act does in fact constitute discriminatory harassment must be determined on a case-by-case basis in light of all relevant circumstances.

If you believe you have experienced or are experiencing discriminatory harassment, talk to the person or persons who may be responsible for the problem. If that is not possible, or doesn't work, speak to someone for help or advice.

If you are a student you may speak to your academic advisor, the chairperson of the department, any staff member in student life, particularly residential learning, security, counseling, or the director of multicultural affairs, or to the special assistant for equity programs.

If you are an employee, speak with the human resources office, the vice president or dean of that area (academic affairs, administrative operations, admissions and financial aid, business and finance, information technology, student life, university advancement), the equity programs office or the multicultural affairs office. Any citizen may also contact outside authorities to file complaints. External agency rules or procedures internal to St. Lawrence University may obviate a complaint in the event you choose an external route.

Sexual Harassment Policy

It is the policy of St. Lawrence University that all employees and students should be able to enjoy a work and educational environment free from all forms of discrimination, including sexual harassment.

It is expressly against University policy for any employee or student to engage in sexual harassment. Sexual harassment is defined as any unwelcome sexual advancement, request for sexual favors or other physical or verbal conduct of a sexual nature when:

1. Submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or education; or
2. Submission to or rejection of such conduct by an individual is used as the basis for academic or employment decisions affecting that individual; or
3. Such conduct has the purpose or effect of unreasonably interfering with an individual's academic or professional performance or creating an intimidating, hostile or offensive employment, education or living environment.

Conduct that is harassing to students or employees will not be tolerated. Any employee or student will be subject to disciplinary action for violation of this policy, up to and including termination or expulsion. Sexual harassment is illegal under both state and federal law. In some cases, it may be susceptible to prosecution under criminal sexual law.

Any St. Lawrence University employee having a complaint of sexual harassment is urged to notify his or her immediate supervisor at once. If the complaint is against the immediate supervisor, or if the complainant for any other reason is not comfortable with or is unable to contact his or her supervisor, the University's office of equity programs or the human resources office should be consulted. A student should notify the University's office of equity programs for information on the complaint procedure and advice.

The equity programs office will investigate the allegations and recommend the necessary corrective action. No employee or student shall be subjected to any discipline or adverse treatment because the employee or student made a complaint of sexual harassment. All appropriate confidences shall be maintained.



Admissions

St. Lawrence seeks to admit students who will take full advantage of its educational program, contribute most to the campus community and add to the diversity of the student body. The University is interested in enrolling students who not only give proof of academic curiosity and ability, but also take an interest in the lives and welfare of others and actively demonstrate personal initiative and leadership.

General Information

First-Year Admission

The Admissions Committee reviews a variety of materials when considering an applicant. First, the committee is interested in the academic record (to evaluate what courses the applicant has taken and how successful he or she has been) and, second, in what counselors and teachers have to say about the student's work in class and contributions out of class. The results of standardized tests are also required as part of an application. Finally, the Admissions Committee is interested in the student as a person, considering special talents and contributions made to the school or the community.

To be considered for admission to St. Lawrence University, each first-year applicant must submit the following:

1. An application for admission, using either the St. Lawrence application or the Common Application.
2. A \$50 non-refundable application fee or approved fee waiver form.
3. Official transcripts showing the records of academic work completed at all secondary and post-secondary institutions.
4. A recommendation from a secondary school counselor or school official.
5. A recommendation from a teacher with whom the student has studied an academic subject in the junior or senior year.
6. Official scores of required standardized examinations. (For a full discussion of examination requirements, see page 193.)

First-year applications, and all supporting materials, must be postmarked no later than February 15 of the year in which a student wishes to enroll. Students interested in applying under one of the Early Decision options should read the information on the following page regarding appropriate deadlines.

All transcripts and admission materials become the property of the University as soon as they are received, and will not be returned or sent to another institution.

Application forms and information can be obtained by contacting:

Office of Admissions
St. Lawrence University
Canton, NY 13617
800-285-1856 or 315-229-5261
admissions@stlawu.edu
www.stlawu.edu

Early Decision

Students who have selected St. Lawrence University as their first choice are encouraged to apply under the Early Decision Program. Through this program, a candidate's file is read prior to the review of the general applicant pool. Any student accepted under this program is obligated to attend St. Lawrence, provided satisfactory financial arrangements are completed, and agrees to withdraw any applications he or she may have filed at other institutions.

The Early Decision Program provides students with the opportunity to apply by one of two deadlines and receive notification of the admission decision within one month. The postmark deadlines and notification dates are as follows:

Option	Deadline	Notification
Early Decision I	November 15	December 15
Early Decision II	January 15	February 15

Early Decision candidates are considered on the basis of their total qualifications, which must include a strong secondary school academic record through the junior year. Additionally, candidates considering applying under the Early Decision Program are strongly encouraged to visit campus prior to filing their application. Those not admitted under the Early Decision Program may be deferred to Regular Decision or denied admission.

Candidates interested in receiving financial assistance from the University are welcome to apply under the Early Decision Program.

Requirements for Admission

Since St. Lawrence is a liberal arts university, applicants are expected to have as broad a preparation as possible at the secondary school level. Competitive candidates for admission typically present:

1. Four years of English;
2. Three years each of social studies, mathematics, foreign language and science, with additional years of study in the areas of greatest interest to the student;
3. Coursework in other areas as determined by the requirements of the secondary school and the interests of the student.

St. Lawrence recognizes the International Baccalaureate curriculum and the "O" and "A" levels of the Oxford system.

Students interested in pursuing college studies in mathematics or science (particularly the combined 3+2 engineering plan) should have comprehensive preparation in the sciences and mathematics. Such students, therefore, should complete at least four years of mathematics and at least three years of laboratory science.

Standardized Examinations

St. Lawrence University requires each applicant to submit the official results of either the Scholastic Assessment Test (SAT I) or the American College Testing Program test (ACT). Submission of the results of SAT II Subject Tests is optional but encouraged.

The SAT I should be completed by the December test date, but must be completed no later than January of the senior year. The ACT examination must be completed no later than the December test date.

Candidates for the College Board tests should obtain information from either their guidance office or the College Board, Box 592, Princeton, NJ 08540. Candidates for the American College Testing program should obtain information from their guidance office or ACT Registration, Box 414, Iowa City, IA 52243.

Interviews

While interviews are not required, we strongly encourage a visit to campus. A campus visit, including a tour and an interview, permits a closer look at the opportunities available to students at St. Lawrence and offers the chance

to meet students and faculty and to see our extensive facilities. In addition, we have the opportunity to get to know the applicant better. Because each student is an individual, we believe an interview will benefit both the Admissions Committee and the applicant.

Interviews can be scheduled by contacting the admissions office, which is open Monday through Friday throughout the year and on most Saturdays. Additionally, scheduled tours are available on most days when the admissions office is open. Contact the admissions office to schedule a campus tour.

Interviews may also be scheduled with St. Lawrence alumni in your local area. To make arrangements for an alumni interview, or for assistance with your plans to visit campus, please call us at 1-800-285-1856 or 315-229-5261 or e-mail admissions@stlawu.edu.

Financial Aid Program

The financial aid program at St. Lawrence normally consists of some combination of scholarship, grant, loan and work designed to fit each individual's specific needs. Most scholarship awards are based on merit; most grant awards are based on financial need. Financial need is generally determined from data supplied on the Free Application for Federal Student Aid (FAFSA) form. These forms are available at secondary school guidance offices and should be completed and filed with the appropriate processing center between January 1 and February 15 of the year in which the student wishes to enroll.

Early Decision candidates must fill out the St. Lawrence University Financial Aid Application Supplement for New Students, as well as the FAFSA. The supplement is obtained directly from St. Lawrence. Please refer to page 193 for Early Decision information. All candidates for financial assistance are encouraged to complete the College Scholarship Service (CSS) *PROFILE* form or the St. Lawrence Financial Aid supplement, which will be sent directly to applicants indicating an interest in financial aid. Students may be asked to submit additional

information to expedite the financial aid notification process.

By submitting the appropriate forms, students are considered for all types of need-based financial assistance administered by the University. Grant funds are limited and may not be awarded to all students who demonstrate financial need. Merit scholarships are awarded without regard to financial circumstances. For more information about merit scholarships, contact the office of admissions and financial aid.

To be as fair as possible to all students in the awarding of financial aid from the University, parents of students applying for financial aid will be requested to provide several verification documents, including a copy of the family's latest income tax returns. Parents of entering first-year students with financial aid must do this by February 15 prior to the first year of college and parents of upperclass applicants at the time of the renewal application in the spring.

While there is cognizance of various definitions of independent status for entitlements and legal purposes, the University reserves the prerogative of reviewing individual circumstances without reference to qualifications established by other agencies. Family financial resources will be the focus of that review. In addition, financial information will be expected from both parents, regardless of marital status.

Since the University may not be able to assist every student who demonstrates financial need, the following items will be considered: extent of financial need, academic achievement, leadership in extracurricular activities, special talents, recommendations and future promise. Thus, once need has been determined, the merits of the individual candidate may affect composition of the financial aid package.

Need-based financial assistance recipients must reapply for their financial aid each year. St. Lawrence awards will be continued for a total of eight semesters as long as financial

need continues and the student is in good academic and social standing. The maximum time frame for federal student aid eligibility is 12 semesters. Awards may vary from year to year as financial need fluctuates based on changing family circumstances. Renewal forms are available in the financial aid office after January 1.

Further information about the financial aid program at St. Lawrence is available in the office of admissions and financial aid.

University Scholar Program

The St. Lawrence University Scholar program recognizes applicants who demonstrate outstanding academic ability and talents during their high school years. Notification of scholar designation is made at the time of admission to the University.

The University is committed to facilitating the progress of all scholars toward their degrees through both academic and financial assistance, and in turn expects scholars to maintain an academic standard commensurate with their demonstrated potential, but no less than a 3.0 cumulative grade point average.

Advanced Placement and Credit

St. Lawrence University awards advanced placement and credit toward graduation for entering first-year students through the College Board Advanced Placement program and the International Baccalaureate Program. The effect of advanced credit upon the department major requirements is at the discretion of each department chair. Each department chair will review the requested credit and make a recommendation to the registrar.

Generally, advanced standing and credit toward graduation are granted to students who achieve a rating of 4 or 5 on the Advanced Placement Examination in the following subjects:

AP Exam	SLU Equivalent	SLU Units	Distribution
Chemistry	Chemistry 103	1	Natural Science
Computer Science A	Computer Science 140	1	Liberal Arts/ Math
Computer Science AB	Computer Science 140 and 219	2	Liberal Arts/ Math
English Language and Composition	None	1	
English Literature and Composition	English 190	1	Humanities
Economics Macro and Micro	Economics 100	2	Social Science
Economics Macro or Micro	None	1	
History, United States	History 103,104	2	Social Science
History, European	History 102	1	Humanities
History, World	None	1	
Mathematics Calculus AB or AB subcode on calculus BC exam)	Mathematics 135	1	Liberal Arts/ Math
Mathematics Calculus BC	Mathematics 135 and 136	2	Liberal Arts/ Math
Modern Language (Language)	French, German or Spanish 201 200 level	1	Liberal Arts/ Foreign Language
Modern Language (Literature)	None	1	
Psychology	Psychology 100	1	
Statistics	Mathematics 113	1	Liberal Arts/ Math

Students earning a score of 4 or 5 on the General Biology AP exam may earn 1 unit for Biology 102 if they successfully complete Biology 101. Explanation of details of this option may be obtained from the biology department.

Students earning a score of 4 or 5 on a physics exam should consult with the chair of the physics department concerning credit and placement.

Credit earned is acceptable in lieu of departmental prerequisites. Students who score 3 may be considered for advanced standing and/or credit by individual departments.

St. Lawrence University also recognizes the International Baccalaureate Higher Level examinations in which a score of 5 or higher is obtained. Credit is not awarded for Subsidiary Level Examinations. Course credit is regarded

as transfer credit and is determined by the registrar in consultation with the appropriate department chair.

College courses taken before matriculation may, subject to approval by the appropriate department chair, be acceptable for graduation credit.

Higher Education Opportunity Program

The Higher Education Opportunity Program (HEOP), established by legislation in 1969, provides a broad range of services to New York state residents who, because of academic and economic circumstances, would otherwise be unable to attend a post-secondary institution. Under the auspices of the New York State Education Department, HEOP follows guidelines that include a mandatory five-week pre-first-year summer program. During the academic year, the program provides academic, personal and financial counseling. Further information may be obtained from the director of the Higher Education Opportunity Program, St. Lawrence University, Canton, NY 13617, 315-229-5580.

Transfer Admission

Transfer students are considered for admission with advanced academic standing. Students transferring from other institutions may receive the bachelor's degree only after completion of no fewer than 16 course units in residence at St. Lawrence. Graduates of two-year colleges who have completed a liberal arts program and have met the standards for admission are normally admitted with junior standing.

To be considered for admission for the fall semester, a transfer candidate must submit an application, complete with all supporting materials, no later than April 1; candidates for the spring semester must complete their applications by November 1. Students wishing to apply after those deadlines should contact the office of admissions to discuss the individual situation. All transcripts and admission materials become the property of St. Lawrence Uni-

versity as soon as they are received, and will not be returned or sent to another institution.

Although not required, interviews for transfer candidates are strongly encouraged.

Transfer candidates must submit the following:

1. An application for admission, including the non-refundable \$50 application fee or an approved fee waiver form.
2. Official transcripts of all secondary school work, including standardized test scores (SAT I or ACT).
3. Official transcripts showing the grades of all post-secondary academic work.
4. A list of courses, including the course number, that will be completed prior to the expected entry date.
5. A recommendation from a faculty member with whom the applicant studied at his or her most recent college or university.
6. The Statement of Good Standing from the appropriate official at the applicant's most recent college or university
7. A copy of the catalog of the college attended, from the academic year in which courses were taken.

Transfer candidates interested in applying for financial aid should contact the financial aid office directly. Non-traditional applicants may have particular requirements changed or waived.

International Students

International students seeking admission to St. Lawrence must generally meet all regular requirements for completion of the application; however, the application fee is waived for international students. Students for whom English is their first language must submit official results of either their SAT-I or ACT examinations. Student for whom English is not their first language may submit official TOEFL scores in lieu of SAT-I or ACT, although we recommend the submission of both TOEFL and either SAT-I or ACT scores. A financial aid form for international students is available from the financial aid office and will be sent to students along with the application for admission.



Financial Information

Tuition and Fees

Tuition, fees and other charges are subject to change by action of the Board of Trustees. **Charges quoted here are for the 2002-2003 academic year.**

St. Lawrence University operates under a comprehensive fee plan that covers expenses for tuition, laboratories and room and board. The board portion of the fee enrolls students in a variable plan covering the average number of meals eaten by students. Individual students' meal costs will vary from this average. Information on fees for summer sessions is available at the business office.

Payment of the annual tuition entitles a student to enroll in four and a half units of instruction each semester. Students taking *fewer* than four and a half course units may be billed for full tuition. Students taking *more* than four and a half course units may be subject to an overload election fee. Refer to page 23, "Registration for a Course Overload," for more information. Units of academic credit earned by taking one or more free overload courses may not be applied to a reduction of tuition in a subsequent semester.

St. Lawrence offers financial aid in amounts determined by need and the availability of funds. The director of financial aid offers advice to students on scholarship opportunities or work opportunities on or near the campus. Further information on scholarships, loans and other financial aid is presented in the following pages and in the Admissions section of this *Catalog*.

Comprehensive Fee

Tuition	\$26,280
Room and Board	<u>\$7,755</u>
	\$34,035

Required Fees

Student Activities Fee	\$190
Class Dues	<u>*\$10</u>

**Members of Class of 2003 add \$20.*

Total Fees *\$34,235

Room charge is based on double occupancy. An additional \$300 per semester is charged for a single room. The cost of books, supplies, travel and other personal expenses is approximately \$1,450 per year. Room charges cover most on-campus services including access to telephone service, Internet service, SLU computer network service, cable television service, residential programming and copies of transcripts. The student government has established a student activities fee of \$190 that is billed and collected by the University on behalf of student government. This fee covers the expenditures of student organizations and is subject to change by student referendum.

Miscellaneous Fees

1. A non-refundable application fee of \$50 must accompany the final application for admission from a new student.
2. A non-refundable advance payment of \$500 is required from new students upon acceptance. This payment is credited against tuition at the time of registration.

3. A non-refundable deposit of \$500 is due at the time of acceptance into a St. Lawrence University off-campus program. This amount will be credited against tuition.
4. Accident insurance is required of all students unless they present evidence of equivalent coverage (see Accident and Sickness Insurance below for details). Premiums may vary but currently are approximately \$200 per year. Sickness insurance is also available, for approximately \$150 per year.

Other Charges

Late registration and course change	\$45
Overload election (per course unit)	\$3,285
Special/summer student registration fee	\$35

The Board of Trustees of the University reserves the right to make, at any time, such changes in tuition, dormitory and other fees as may be necessary. Refunds are allowed only as outlined under Refund on Withdrawal.

Accident and Sickness Insurance

All students, except as noted below, are required to enter the accident insurance program and will be billed annually for this insurance. The policy runs from August 15 to the following August 15 and costs approximately \$200.00. Under the policy the student is reimbursed for medical expenses incurred up to \$2,000 for each accident during the policy year; the maximum amount payable for intercollegiate sports injury is \$5,000. If the covered medical expense for injury or sickness exceeds the aggregate maximum paid under the basic accident or basic sickness benefits, the policy will pay 80 percent of the expense up to a maximum of \$10,000.

Students may be excused from accident insurance only upon evidence of equivalent coverage and only on written request to be received no later than August 28 by the office

of campus support services. This request should include (1) a statement from the student's insurance carrier that the policy will be in effect during the period in question and that the policy includes the broad medical reimbursement clause (at least \$2,000 per injury); (2) the name of the insurance company and the number of the policy. (Most group insurance policies without student accident rider or similar hospitalization insurance do not provide equivalent coverage.) Requests for excuse must be submitted and reviewed for each academic year. Further information on the accident insurance program is available in the office of campus support services.

Sickness Benefit

Students are billed annually for the University's sickness insurance as well. The premium charge is approximately \$150.00 for the year beginning August 15. Coverage is provided, subject to various maximums, for hospital room and board, miscellaneous hospital expenses, surgical treatments, medical attention for non-surgical cases, ambulance service and consultants. Also covered are substance abuse and alcoholism treatments and some health care expenses. Coverage is also provided for repatriation in the event of accident or sickness causing death.

The family may elect to waive this sickness insurance by providing written notice to campus support services by August 28. The insurance coverage is subject to change.

A brochure describing all details of both programs is mailed to all students and their parents or guardians in early July.

Intercollegiate Sports

The University's athletics department strongly suggests that student athletes enroll in the Students' Accident and Sickness Insurance policy because of the extensive coverage for referral to specialists that may not be covered by family insurance.

The Students' Accident Insurance policy required of all St. Lawrence students (unless waived via proof of equivalent insurance) pro-

vides benefits for \$5,000 of eligible expenses for injuries resulting from intercollegiate sports sponsored by the University.

Any expenses in excess of \$5,000 are the responsibility of the private policy the student carries. Claims should be filed with the private insurance carrier.

The University carries a comprehensive sports accident policy that provides excess coverage that is secondary to any other type of insurance a student may have available at the time a claim occurs. Details of this program are available at the Augsburg Physical Education Center office, Winning Health Center or Campus Support Services.

Physical examinations are required before student-athletes may compete in intercollegiate sports programs. The University retains the right to disqualify athletes from intercollegiate competition for medical reasons.

Payment of Bills

One-half of the annual charge is billed in July and one-half in December, with payment due in mid-August and mid-January, respectively. Bills are mailed to the students' parents or legal guardians unless the University receives instruction to the contrary.

Tuition and fee payments to St. Lawrence University may be made in cash or by check. Payment may be made by credit card through our service provider (Tuition Management Systems) by calling 1-800-722-4867 and selecting option 2 to enroll in the St. Lawrence University Charge Plan. Tuition Management Systems charges a service fee, which is based on the total amount charged and is subject to the card holder's final approval.

All charges must be paid on the respective August and January due dates for each semester; the exact date is printed on the bill. Charges for summer sessions and graduate courses are due the day of registration. Delinquent balances after these due dates are assessed interest of one percent per month.

The University offers a time payment plan that allows payments for undergraduate tuition

and fees pertaining to the regular academic year to be made over a period of time up to one year. The plan, which offers flexibility in both the timing and method of payment, carries no finance charges, but does require an administration fee. Information about the plan is mailed to students in late spring.

Students holding New York State Excellence Awards and/or Tuition Assistance (TAP) awards who wish to have the University extend credit for the amount of such awards granted must be listed on the New York State voucher or furnish a certification of award with payment of fall semester charges.

St. Lawrence University recognizes that an important part of a family's consideration of enrollment at any college or university is determining how they will meet the costs of attendance. The business office is prepared to offer guidance to families and prospective students regarding total costs of education, payment options and sources of funds available to satisfy their financial obligations to the University.

In consideration of acceptance for enrollment at St. Lawrence University, the student and guarantor/s guarantee the payment of all fees for tuition, room, board and all other financial obligations incurred while in attendance at the University.

Registration for subsequent terms and participation in housing lotteries are prohibited and transcripts are not released until all financial obligations have been met. Exceptions may be approved by the business office in the following situations: a student loan or a parent loan has been approved; the family participates in the time payment plan and the plan payments are current.

If financial obligations are not satisfied or deferred payment arrangements not approved, students may be administratively withdrawn. Students may be reinstated upon settlement of an account and the University will make every effort to honor the student's original course selection and housing priority but cannot guarantee those selections.

In addition, all financial obligations to the University must be met as a condition for graduation and participation in commencement ceremonies.

Refund on Withdrawal, Suspension or Expulsion

A student who withdraws from the University must notify the vice president and dean of student life and co-curricular education in writing prior to his or her departure.

Students will not receive any refunds of tuition, fee or room or board charges that were funded by University scholarship or government financial aid.

Refund Policy

Refunds for students who withdraw for any reason after tuition, fees, room and board have been paid, but prior to registration and the first day of classes, will be 100 percent of tuition, fees, room and board.

After the beginning of classes, refunds are calculated as follows:

Refund of

<i>Tuition</i>	<i>Period of Enrollment</i>
90%	Withdrawal before the end of the first week of classes.
50%	Withdrawal during the second week of classes through the fourth week of classes.
25%	Withdrawal during the fifth week of classes through the seventh week of classes.

Refund of Room There will be no refund of room charges after classes start.

Refund of Board Unused board will be refunded (member fee and meal bank).

Students enrolled in a semester abroad are charged a comprehensive fee. For the purpose of calculating a refund, the comprehensive fee will be allocated as if the student were attending school on campus and the refund calculated in accordance with these guidelines.

Refunds of Title IV aid (federal financial aid) will be calculated according to federal regula-

tions. Federal aid earned is calculated based on the number of days in attendance divided by the number of days in the enrollment period. After 60 percent of the enrollment period has passed, federal aid will be considered 100 percent earned. Unearned federal aid will be returned to the federal aid program in the following order: Federal Family Education Loan, Federal Perkins Loan, Federal PLUS Loan, Federal Pell Grant, Federal SEOG. Please contact the business office for more information.

Group health insurance refunds and cancellations will be made in accordance with the insurance policy. Currently, refunds and cancellations are made up to 60 days after the start of the policy, for both fall and spring semesters (provided no claims have been or will be filed against the policy). Additional details are available through campus support services.

Withdrawal for medical reasons will generally be granted for students who must leave campus and are unable to complete courses. Medical withdrawals approved by the office of the vice president and dean of student life and co-curricular education will result in credit to re-take the original schedule of courses with the only charge being the difference between tuition at the time of withdrawal and tuition at the time the course is re-taken.

Refunds for withdrawal due to an illness will be evaluated on a case-by-case basis through the office of the vice president and dean of student life and co-curricular education.

Call into Military Service

Students who are called into military service (not enlistments) may choose either a pro-rata refund of tuition or enrollment in a subsequent semester to re-take interrupted courses, paying only the difference between tuition at the time of interruption and tuition at the time the courses are re-taken. The unused portion of room and board (member fee and meal bank) will be refunded.

Suspensions or Expulsions

Only the unused portion of the board (member fee and meal bank) paid will be refunded.

Appeals to any sections of the refund policy should be made in writing to the vice president for finance and the vice president and dean of student life and co-curricular education.

Requests for additional information regarding refund or withdrawal should be addressed to the business office. The University retains the right to change the refund policies.

The University offers a Tuition Refund Plan through A.W.G. Dewar Inc. of Quincy, MA. The plan insures the loss of tuition and fees due to withdrawal for illness and accident reasons, and for mental illness or emotional problems. A brochure describing the plan is mailed to all students and their parents or guardians in early July.

New York state students qualifying under the Tuition Assistance Program (TAP) are responsible for reimbursing the University for the amount of tuition assistance award held at the time of withdrawal and upon which the University has extended credit to the student.

Financial Aid Program

The financial aid program at St. Lawrence normally consists of some combination of grant, scholarship, loan and job designed to fit each individual's specific needs. Financial aid practices and requirements are described in the Admissions chapter of this catalog. The individual financial aid package awarded to each student is applied to the student's account as follows:

University Scholarships and Grants

University Scholars are selected at the time of admission to St. Lawrence. This designation is based on outstanding academic ability and talents during a student's high school years. Scholars are required to maintain at least a 3.0 cumulative grade point average to retain this award for subsequent semesters.

University grants are determined from a combination of demonstrated financial need and academic ability.

If grants and/or scholarships are awarded to a student, the amount is applied to the student's account in equal portions over the two academic semesters of each year.

Non-University Grant Programs

If the student has resources from the following programs in the aid package, they are applied to the student's account in equal portions across the two academic semesters of each year.

Pell Grants. The U.S. Department of Education provides federal grants (between \$400 and \$3,750 for 2001-2002) to students whose eligibility is determined by FAFSA.

Supplemental Educational Opportunity Grants (SEOG). SEOGs are federally funded through St. Lawrence and are restricted to students demonstrating high financial need.

Tuition Assistance Program (TAP). This New York state financial assistance program is currently based on the parents' New York state net taxable income and can range from \$275 to \$5,000. Students who are New York state residents may use the funds only at New York state post-secondary institutions.

Vermont Student Assistance Corporation. Vermont offers a state grant program; students are allowed to use VSAC funds, if eligible, at St. Lawrence.

Vocational Rehabilitation. Financial assistance and program counseling are provided by New York state by the Division of Vocational Rehabilitation for students who qualify under the prescribed conditions. Students should write to the nearest Vocational Rehabilitation Office for information.

Veterans' Benefits. More information and applications are available at local Veterans Administration offices or by writing the State Regional Office, 1021 Main St., Buffalo, NY 14203.

Loan Programs

Federal Stafford Student Loan Program. Students may borrow long-term low-interest loans if they meet the following qualifications:

1. Must be enrolled at least half-time or more.
2. Meet the needs test for the loan. Details of the needs test are available in the financial aid office. If student loan applicants do not demonstrate financial need for the subsidized loan program, they may qualify for an unsubsidized student loan.

Full-time students may borrow as follows:

First-Year Students	\$2,625 per year
Sophomores	\$3,500 per year
Juniors and Seniors	\$5,500 per year
Graduate Students	\$18,500 per year

Perkins Loan Program. The University is a participant in the federal Perkins Loan Program, which enables qualified students to borrow funds for a long term at low interest rates. Limited Perkins funds are available for students who meet financial need guidelines. Financial forms are required. Applications and additional information may be obtained from the office of financial aid.

Supplemental Loans. The University has joined with First Marblehead to participate in the GATE Loan Program to incorporate supplemental long-term student loans in financial aid

packages. Payments start after the student departs the University, with interest accruing beginning at disbursement.

Parent Loans. The Parent Loans for Undergraduate Students (PLUS) program is administered by banks and other approved lenders. The maximum loan is the cost of education less other student aid, with interest and principal payment by parents beginning at disbursement. The University has a variety of contacts for these types of loans and further details may be obtained from banks.

Student Employment

Numerous employment opportunities are available on campus. Many students are employed in part-time jobs that range from five to 20 hours a week. St. Lawrence participates in the federally sponsored College Work-Study program. Preference for campus jobs is given to students who qualify for federal financial aid. St. Lawrence also endeavors to assist students in securing summer employment opportunities.

The Faculty

Patricia Ann Alden, A.B., A.M., Ph.D.,
Stanford

Professor of English and Associate Dean for
International and Intercultural Studies and
Coordinator of Cultural Encounters

Michael George Alzo, B.A., M.A., Pennsylvan-
ia State; M.L.S., Toronto
Systems Librarian

Peter Joseph Bailey, A.B., New School for
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Southern California

Professor of English and Coordinator for
Campbell Graduate Fellows Program

Roger Lee Bailey, B.A., State College of
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Professor of Fine Arts and Chair of Department

Bradley S. Baldwin, B.S., Southern Illinois;
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Assistant Professor of Biology

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Fippingger Professor in the Sciences

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Assistant Professor of Fine Arts

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Illinois

Assistant Professor of Speech and Theatre

Christin Bell, B.A., Siena; M.S., Albany
Access Services Librarian

Guy Berard, A.B., Youngstown; M.F.A.,
Kent State

Professor of Fine Arts; on sabbatical leave
Spring 2003

Thomas Leland Berger, A.B., Dartmouth;
M.A., Ph.D., Duke

Frank P. and Anne C. Piskor Professor of
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Director of London Program, 2002-2003

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State

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The list of faculty presented here reflects the 2001-2002 academic year, and was accurate as of January 1, 2002.

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Gudrun Brokoph, B.A., Missouri; M.A., Ph.D., California (Davis)
Harriet Lewis Professor of Modern Languages (German)

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Assistant Professor of Psychology

Roy Chandler Caldwell, B.S., Rensselaer; M.A., Ph.D., North Carolina (Chapel Hill)
Associate Professor of Modern Languages (French) and Chair of Department

Ilia J. Casanova-Marengo, B.A., Puerto Rico; M.A., Rutgers
Assistant Professor in Modern Languages (Spanish) and Director of Spain Program 2001-2002

Brian Eugene Chezum, B.A., Coe College; Ph.D., Kentucky
Flora Irene Eggleston Associate Professor of Economics; on sabbatical/FYP leave 2002-2003

Yoko Chiba, B.A., Tsuda, Tokyo; M.A., Dublin; M.A., Ph.D., Toronto
Associate Professor of Modern Languages and Literatures (Japanese); on sabbatical Spring 2002

Kenneth Wayne Church, B.A., Dartmouth College; M.A., Michigan
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Arthur J. Clark, B.A., Eastern Nazarene; M.Ed., Boston College; Ed.D., Oklahoma State
Professor of Education and Coordinator of the Counseling and Development Program

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Charles A. Dana Professor of Religious Studies and Vice President of the University and Dean of Academic Affairs; on sabbatical leave 2002-2003

John Martin Collins, B.A. Wesleyan; M.A., Ph.D., Minnesota
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Professor of Intercollegiate Athletics and Recreation

Peter Winfield FitzRandolph, B.A., Rochester; M.A., Ph.D., Tufts
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Neil Forkey, B.A., Massachusetts; M.A., Maine; Ph.D., Queens
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Assistant Professor of Environmental Studies

Larry George French, B.S., Maine at Orono; Ph.D., Princeton
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Associate Professor of Mathematics; on sabbatical leave Fall 2002

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Burry Professor of Statistics

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G. L. Flint Professor of Fine Arts

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Associate Professor of Biology and Director of Outdoor Studies

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Curator of Special Collections and University Archivist

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Associate Professor of Psychology and Associate Dean for Faculty Affairs

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Mwenda G. Ntarangwi, B.Ed., M.A., Kenyatta; M.A., Ph.D., Illinois

Assistant Professor of Anthropology and Director of University Kenya Semester Program

Celia K. Nyamweru, B.A., Ph.D., Cambridge (England)

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Institute of Mining and Technology

Associate Professor of Physics; on sabbatical leave Spring 2002

Karen Joan O'Neil, B.A., Liverpool (England); B.S., Kingston (England); Ph.D., Kent State

Associate Professor of Sociology and Coordinator for European Studies; on sabbatical leave Fall 2002

Laura Nuzzi O'Shaughnessy, B.A., Queens; M.A., Ph.D., Indiana

Charles A. Dana Professor of Government; on leave of absence 2002-2003

Esther R. Oey, B.A., Swarthmore; Ph.D., UCLA

Assistant Professor of Education

Michael Rainey Owen, B.A., Earlham; M.S., Ph.D., Illinois
Associate Professor of Geology

Stephen Dennis Papson, B.A., Seton Hall; M.A., New School for Social Research; Ph.D., Kentucky
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Assistant Professor of Global Studies

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Professor of Anthropology and Chair of Department

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Assistant Professor of Philosophy

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Assistant Professor of History

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Charles A. Dana Professor of Economics

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Coordinator of Technical Services and Cataloging

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Roseline Tremblay, Bachelor of Law, Montreal; Ph.D., Quebec; Ph.D., Paris
Assistant Professor of Modern Languages (French)

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Dana Professor of Fine Arts

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Hayward Associate Professor of Physics and Chair of Department

Bruce Ira Weiner, A.B., Princeton; M.A., Ph.D., Pennsylvania
Craig Professor of English

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Science Librarian

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Hepburn Professor of Economics

Faculty Emeriti

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Professor of Economics, Emeritus (1994)

Robert Bruce Carlisle, A.B., Clark; Ph.D., Cornell
John Stebbins Lee Professor of History, Emeritus (1991)

Douglas Carmichael, A.B., Bowdoin; M.A., Harvard; Ph.D., Indiana
Professor of Philosophy, Emeritus (1986)

Henry Hays Crimmel Jr., B.S., M.A., Indiana; Ph.D., Chicago
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Clarke Lyman Gage, B.S., Antioch; Ph.D., Ohio State
Professor of Chemistry, Emeritus (1986)

Rita Goldberg, B.A., Queens College (New York); M.A., Middlebury Graduate School of Spanish in Spain (Madrid); Ph.D., Brown
Charles A. Dana Professor of Modern Languages (Spanish)

Robert Stanley Goodwin, B.S., Springfield; M.S., Brooklyn
Professor of Sport and Leisure Studies, Emeritus (1990)

John Irving Green, B.S., SUNY College of Environmental Science and Forestry (Syracuse); M.S., Syracuse; Ph.D., Cornell
Professor of Biology, Emeritus (1989)

Hugh Gunnison Jr., B.A., M.Ed., St. Lawrence; Ed.D., Syracuse
Professor of Education, Emeritus (1992)

Dorothy Querry Hall, B.S., Pennsylvania State; M.S., Wisconsin
Professor of Sport and Leisure Studies, Emerita (2000)

John William Hall, B.A., M.Ed., Maine; Ed.D., Maryland
Professor of Education, Emeritus (2000)

Stuart Lee Hills, B.A., Wooster; M.A., Ph.D., Indiana
Frank P. and Anne C. Piskor Professor of Sociology, Emeritus (1994)

Stanley Marquis Holberg, B.S., M.A., Buffalo; Ph.D., Maryland
Professor of English, Emeritus (1985)

Harlan H. Holladay, B.S. in Ed., Southeast Missouri State; M.A. in Art, Iowa; Ph.D., Cornell
L.M. and G.L. Flint Professor of Fine Arts, Emeritus (1991)

James Walter Hutchison, Mus.B., Mus.M., Northwestern
Professor of Music, Emeritus (1984)

Paul Fletcher Jamieson, A.B., Drake; M.A., Columbia; Ph.D., Cornell; L.H.D., St. Lawrence
Professor of English, Emeritus (1966)

James Calvin Keene, B.A., Lebanon Valley; Ph.D., Yale; L.H.D., St. Lawrence
Professor of Religion, Emeritus (1974)

Richard David Kepes, B.A., Ed.M., Harvard
Professor of English, Emeritus (1989)

Brian Samuel Kirby, B.A., Yale; Ph.D., Duke
Professor of Philosophy, Emeritus (1999)

Donald Raymond Leet, B.S., Springfield; M.A., Adelphi
Professor of Sport and Leisure Studies, Emeritus (1997)

Theodore Chase Linn, B.A., Allegheny; B.D., Ph.D., Drew
University Chaplain, Emeritus (2000)

Robert Allen Lufburrow, B.A., Berea; M.A., Purdue; M.A., Washington
Professor of Physics, Emeritus (1984)

Donald Robin Makosky, B.A., Western Maryland; A.M., Ph.D., Pennsylvania
Professor of English, Emeritus (1995)

William Douglas Mallam, A.B., M.A., Ph.D., Minnesota
Professor of History, Emeritus (1978)

Robert Steere Matteson, B.A., Haverford; M.S., Pennsylvania; Ph.D., Oklahoma
Professor of English, Emeritus (1993)

George Foster McFarland, A.B., Wesleyan; M.A., Chicago; Ph.D., Pennsylvania
John L. Craig Professor of English, Emeritus (1986)

Judith Suzanne Mearig, A.B., Oberlin; M.A., Ph.D., Michigan
Professor of Education, Emerita (1992)

Robert Leslie Northrop, B.A., M.Ed., Colgate
Professor of Sport and Leisure Studies, Emeritus (2000)

Daniel William O'Connor Jr., A.B., Dartmouth; M.Div., Union Theological Seminary; M.A., Ph.D., Columbia
Charles A. Dana Professor of Religious Studies and Classical Languages, Emeritus (1989)

Francis Dunbar Parker, A.B., Middlebury; A.M., Boston; Ph.D., Case Institute of Technology
Rutherford Professor of Mathematics, Emeritus (1983)

Mary Jane Panella, B.S. of Ed., SUNY Potsdam; M.S.S., certification in gerontology, Syracuse
Professor of Social Work, Emerita (1990)

Donald Charles Peckham, A.B., Oberlin; M.A., Michigan; Ph.D., Pennsylvania State
Alvinza Hayward Professor of Physics, Emeritus (1986)

Edward Joseph Pierce, B.A., St. Joseph's; M.A., Middlebury; Ph.D., Wisconsin
Professor of Modern Languages (French), Emeritus (1999)

Frank Peter Piskor, A.B., Middlebury; Ph.D., Syracuse; LL.D., Middlebury, Alfred, Colgate; L.H.D., Syracuse; Sc.D., Clarkson; Litt.D., St. Lawrence; D.Litt., Westminster
President of the University, Emeritus (1981)

Theodore Frederick Renick, B.S., Western Illinois; M.Ed., Ed.D., Illinois
Professor of Education, Emeritus (1989)

William Dowden Romey, A.B., Indiana; Ph.D., California (Berkeley)
Professor of Geography, Emeritus (1993)

John Arnold Ross, B.S., Trinity College; Ph.D., Syracuse
Professor of Psychology, Emeritus (1997)

Jonathan Gregory Rossie, B.S., Harpur; M.S., Ph.D., Wisconsin
Elizabeth Margaret Vilas Professor of History; Emeritus (1997)

Robert Shepard Schwartz, B.A., Connecticut; M.A., Ph.D., Chicago
Professor of History, Emeritus (1999)

Robert John Sheldon, B.A., M.A., Colgate
Professor of Sport and Leisure Studies, Emeritus (1991)

Samuel Stuart Stradling, A.B., Hamilton; Ph.D., Rochester
Baker Professor of Chemistry, Emeritus (1999)

Peter Crosby van Lent, B.A., Dartmouth; Ph.D., Stanford
Professor of Modern Languages (French) and Coordinator of Native American Studies, Emeritus (2000)

David Henry Vrooman Jr., B.A., Cornell; M.A., Northwestern; Ph.D., SUNY Albany
Professor of Economics, Emeritus (1999)

Robert Norton Wells Jr., B.A., M.A., Ph.D., Michigan
Charles D., Sarah A. and John D. Munsil
Professor of Government, Emeritus (1999)

Russell Frederick Wells, A.B., Lafayette; M.S., Springfield; M.A., North Carolina; Ph.D., Purdue
Professor of Biology, Emeritus (1999)

Kenneth Calvin West, B.S., Wheaton (Illinois); Ph.D., Indiana
Professor of Chemistry, Emeritus (2000)

Frank Daniel Whalen, A.B., Notre Dame; M.S., Pennsylvania State; Ph.D., Pittsburgh
Professor of Psychology, Emeritus (1997)

James Watson Wolfenden, B.A., M.A., Ph.D., Yale
Professor of History, Emeritus (1981)

Merrill Orne Young, A.B., Harvard; S.T.B., General Theological Seminary; Th.M., Th.D., Harvard
Professor of Religious Studies and Classical Languages, Emeritus (1992)

In addition to the regular full-time faculty members, 38 adjunct (part-time) faculty members also assisted in the academic departments during 2000-2001.



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Daniel F. Sullivan, B.S., St. Lawrence; Ph.D.,
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President of the University and
Professor of Sociology

Ann H. Sullivan, B.A., Syracuse
Associate to the President

Sharon E. Darling, B.S., Trevecca Nazarene
Assistant to the President

Susan Chandler Johnson, B.A., SUNY Potsdam
Assistant for Community Relations

Kathleen Buckley, A.S., Dean College; B.S.,
Massachusetts; M.Div., Trinity Evangelical
Divinity School
University Chaplain

Susan M. Cypert, B.A., SUNY Albany; M.S.Ed.,
Northern Illinois; M.B.A., Clarkson
Special Assistant to the President for Equity
Programs

Christine Zimmerman, M.A., Trier (Germany)
Director of Institutional Research

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Yale
Dean

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Senior Associate Director

Al Gotsch, B.A., SUNY Potsdam
Associate Director

Robert F. “Skip” Staats Jr., B.S., St. Joseph’s;
M.A., Columbia
Associate Director

Tonki Downs, B.A., St. Lawrence
Senior Assistant Director

Elizabeth B. Larrabee, B.A., St. Lawrence
Assistant Director

Heather L. Graber, B.A., Kenyon
Admissions Counselor

Rebecca J. Munsterer, B.A., Colby
Admissions Counselor

Jonathan N. Ntheketha, B.A., St. Lawrence
Admissions Counselor

Andreana Prichard, B.A., Kenyon
Admissions Counselor

Jessica L. Sullivan, B.A., St. Lawrence
Admissions Counselor

Maureen E. Williams, B.A., St. Lawrence
Admissions Counselor

Financial Aid

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Director

Beth C. Turner
Associate Director

Herbert V. “BJ” Revill III, B.A., SUNY
Potsdam
Assistant Director

The list of officers and staff presented here reflects the 2001–2002 academic year, and is accurate as of January 1, 2002.

Division of Academic Affairs

Thomas B. Coburn, B.A., Princeton; M.T.S., Ph.D., Harvard
Vice President of the University and Dean of Academic Affairs

Kim M. Mooney, B.A., Franklin Pierce; M.A., Ph.D., New Hampshire
Associate Dean for Faculty Affairs

Angela K. Johnston
Assistant to the Dean of Academic Affairs

Academic Resources

Donna M. Fish, A.A., Jefferson Community; B.A., St. Lawrence; M.A., Ph.D., Cornell
Associate Dean for Academic Administration

First-Year Program

Steven G. Horwitz, A.B., Michigan; M.A., Ph.D., George Mason
Associate Dean of the First Year

Higher Education Opportunity Program (HEOP)

William J. Short, B.A., M.S., SUNY Potsdam
Interim Director

Nse N. Obot, B.S., Clarkson
Interim Assistant Director

Carol Kissam, B.A., M.S., SUNY Potsdam
General Counselor

Collegiate Science and Technology Entry Program (CSTEP)

Carol Kissam, B.A., M.S., SUNY Potsdam
Director

Academic Skills

Lorie S. MacKenzie, B.A., Hartwick; M.S., SUNY Potsdam
Coordinator of Academic Achievement

Virginia B. Schwartz, B.S., Bloomsburg; M.Ed., Delaware; Ph.D., Bowling Green
Coordinator of Academic Support

Accommodative Services

John M. Meagher, B.A., Georgetown; M.Ed., Vermont
Director

Upward Bound

Shailindar Singh, B.A., St. Lawrence; M.Ed., North Carolina at Chapel Hill
Director

Andrea Martin, B.S., Hartwick
General Counselor

Amanda J. Pickering, B.S., Clarkson
General Counselor

Theresa L. Swamp, B.S., St. Lawrence
Assistant Director

Academic Support Personnel

Carol A. Budd, B.S., St. Lawrence; M.S., SUNY College of Environmental Science and Forestry
General Biology Specialist

William P. Casey, B.S., SUNY Syracuse; M.S., Florida
General Biology Specialist

Charles A. Crawford, A.A.S., SUNY Canton
Electronics Technician, Physics

Judith L. DeGraaff, A.A., Canton College; B.A., Miami (Ohio)
Slide Librarian, Fine Arts (part-time)

Martha C. Dudley, B.A., Smith; M.Ed., St. Lawrence
Teaching Assistant, Chemistry (part-time)

Sabrina V. Egeland, B.S., St. Lawrence; M.F.A., North Carolina School of the Arts
Costume Shop Supervisor, Speech and Theatre

Marlene R. Kotz, A.A.S., Jefferson Community; B.S., SUNY Science Health Center
General Laboratory Assistant, Biology

John C. Larrance, B.S., Central Michigan; B.S., Ferris State; M.S., Central Michigan
Production Manager, Speech and Theatre

Mela A. Lawson, B.A., Wyoming; M.B.A., Colorado State
Laboratory Coordinator, Psychology (part-time)

Matthew McGuire, B.S., Clarkson
Science Instrumentation GPA/GIS Technician, Library

Jeffrey R. Miller, B.A., Western Connecticut State; M.A., Wesleyan
Laboratory Coordinator/Instructional Technology, Physics Laboratories

Elinore B. Rupp, B.A., Knox; Ph.D., Northwestern
Stockroom Supervisor, Chemistry (part-time)

Faye A. Serio, B.A., DePauw; M.F.A., Notre Dame
Associated Colleges Shared Position, Fine Arts (part-time)

Barry A. Torres, B.M., Syracuse
Director of Music Ensembles

Carine E. Ullom, B.S., McPherson; M.A., Wyoming
Instructional Technology Specialist for Foreign Languages

Matthew F. VanBrocklin, B.A., SUNY Potsdam; M.S., Akron
Geological Technician

Athletics

Margaret F. Strait, B.S., SUNY Cortland; M.Ed., St. Lawrence
Director

Jodi A. Axtell, B.S., St. Lawrence
Head Lacrosse Coach (women)

Kenneth M. Baker, B.A., Allegheny
Associate Director of Media Relations

Debra L. Biche, B.S., Plymouth State; M.S., Ithaca
Head Soccer Coach (women)

Vijay Chitnis, B.A., Brown
Head Squash Coach (men and women, part-time)

Robert C. Clemmer, B.S., Pittsburgh
Head Swimming Coach and Aquatics Director

Troy R. Creurer, B.S., St. Lawrence; M.S., SUNY Potsdam
Assistant Ice Hockey Coach (women)

James P. DeFoe, B.S., M.S., Northern Michigan
Head Nordic Ski Coach

Christopher M. Downs, B.A., SUNY Oneonta
Head Basketball Coach (men)

Mary E. Drueding, B.S., Colby-Sawyer
Riding Coach/Manager Riding Arena

Robert A. Durocher, B.S., Ithaca; M.Ed., St. Lawrence
Head Soccer Coach (men), Assistant Lacrosse Coach (men) and Assistant Athletic Director

Paul J. Flanagan, B.S., M.Ed., St. Lawrence
Head Ice Hockey Coach (women)

Steven Fountain, B.S., Plymouth State
Assistant Football Coach

Jeremy C. Freeman, B.S., St. Lawrence; M.S., Michigan State
Head Tennis Coach

Frances Grembowicz, B.S., Castleton State; M.Ed., Vermont; M.S., Smith
Head Field Hockey Coach, Head Softball Coach and Assistant Athletic Director

G. P. Gromacki, B.S., M.A., M.P.A., Ohio State
Head Basketball Coach (women)

Robert Jay Heinbuck, B.S., M.S., Northeastern
Assistant Ice Hockey Coach (men)

Michael P. Howard, B.A., M.Ed., St. Lawrence
Associate Director of Athletics and Track and Cross Country Coach

Nicholas A. Hughes, B.A., Dartmouth
Head Crew Coach

Walter H. Johnson, B.A., Vermont
Director of Sports Information

Michael A. Knaisch, B.S., Canisius; M.S., Tennessee at Chattanooga
Athletic Trainer

Randolph W. LaBrake, B.S., M.Ed., St. Lawrence
Associate Director of Athletics for Business

Mary A. Lawrence, B.S., Miami
Head Golf Coach

Deborah A. Lyndaker, B.S., St. Lawrence; M.S., Ithaca
Head Cross Country Coach (women) and Assistant Track and Field Coach

Michael P. Mahoney, B.A., St. Lawrence; M.A., University at Albany
Head Lacrosse Coach (men) and Assistant Football Coach

Erik Mann, B.S., Syracuse; M.S., Louisville
Fitness Center Director

Joseph A. Marsh, B.S., New Hampshire
Charles W. Appleton II Hockey Coach,
Head Ice Hockey Coach (men)

Jodi A. McKenna, B.A. Brown; M.Ed., St. Lawrence
Assistant Ice Hockey Coach (women)

John A. Newman, B.S., St. Lawrence
Director of Intramurals and Recreation and Head Cross Country Coach (men) and Assistant Track and Field Coach

Jason Pennella, A.A., Hagerstown Junior; B.S., Salisbury State; M.A., Adams State College
Athletic Trainer

Christopher Phelps, B.A., St. Lawrence; M.A., SUNY Albany
Head Football Coach

Jeffrey J. Pier
Head Alpine Ski Coach

Carrie Pockrandt, B.A., St. Cloud State; M.S., Tennessee at Chattanooga
Athletic Trainer

Kristenne M. Robison, B.A., Baldwin-Wallace; M.A., Ohio State
Head Volleyball Coach

Ronald J. Waske, B.S., St. Lawrence; M.Ed., Bowling Green State
Head Athletic Trainer

R. Christopher Wells, B.A., St. Lawrence
Assistant Ice Hockey Coach (men)

International and Intercultural Studies

Patricia A. Alden, A.B., A.M., Ph.D., Stanford
Associate Dean of International and Intercultural Studies

Anneke J. Larrance, B.A., M.Ed., St. Lawrence
International Student Coordinator (part-time)

Nancy E. Pierce, B.A., Oregon
Coordinator of Off-Campus Programs

Outdoor Studies Program

Karl B. McKnight, B.S., M.S., Brigham Young; Ph.D., Michigan
Director

Naheed Ahmed, B.S., St. Lawrence
Assistant Director of the Adirondack Semester

Eric J. Henderson, B.A., St. Lawrence
Assistant Director of the Adirondack Semester

Sarah Hueniken, B.S., Lakehead
Associate Director of the Outdoor Program and Climbing/Paddling Instructor

Mike McDonnell, B.S., St. Lawrence
Paddling/Ropes Instructor

Philip R. Royce, B.S., Union; M.S., Western Washington
Director of the Outdoor Program

Registrar's Office

Carolyn R. Filippi
Registrar

Richard F. Brush Art Gallery

Catherine L. Tedford, B.A., SUNY Potsdam; M.F.A., Massachusetts
Director

Carole Mathey, B.A., San Diego State; M.A., U.C.L.A.
Assistant Director

University Writing Programs

Richard H. Jenseth, B.A., Western Washington; M.A., SUNY Albany; Ph.D., Iowa
Director (part-time)

Rebecca D. Bliss, B.A., Ohio; M.A., Georgia State; Ph.D., Purdue
Director of the Writing Center

Division of Student Life and Co-Curricular Education

M. L. Petty, B.S., M.S., Ph.D., Florida State; NCC

Vice President and Dean and Assistant Professor of Education

Career Services and Leadership Education

Carol L. Garbarino, B.A., Allegheny; M.Ed., Bowling Green; Ph.D., University of Iowa
Director

Tracey Cross-Baker, B.A., St. Lawrence; M.Ed., Vermont
Associate Director

David F. Netz, B.S., M.S.Ed., Wisconsin (Oshkosh)
Assistant Director

Roxanne P. Patterson, B.A., St. Lawrence
Information Systems Coordinator

Counseling Services

William B. Burns, B.A., Minnesota; M.A., Truman State; Ph.D., Iowa State; NCC
Director

Daniel Hernandez, B.A., M.A., San Jose State; NCC, ACS
Associate Director

Jennifer Weier O'Phinney, B.A., Missouri; M.Ed., University of Akron
Associate Director

Health Center

Susan Lapierre, R.N.B.S., Iowa; F.N.P.-C,
North Dakota
Supervisor

Multicultural Affairs

Rance L. Davis, B.A., M.Ed., St. Lawrence
Director

Residential Learning Communities and Housing

R. Gary Hartz, B.Ph., Miami (Ohio) M.Ed.,
Colorado State
Director

Michele E. Burns, B.A., M.A., Truman State
Assistant Director, Housing and Residential
Learning

Bettina M. Straight, B.A., SUNY Fredonia;
M.S., SUNY Buffalo
Assistant Director, Community Development
and Residential Learning

Donald E. Grooms III, B.A., SUNY Potsdam
Residential Coordinator

Sara A. Morrison, B.S., St. Lawrence
Residential Coordinator

Kenneth O. Okoth, B.A., St. Lawrence
Residential Coordinator

Kelly A. Pelych, B.A., Elmira
Residential Coordinator

Security and Safety

Richard S. Matte, A.A.B., Andover Institute;
Police Officer Certification, New Hampshire
Police Academy
Proctor/Director

Mary Ellen Volzer, A.A.S., Canton College of
Technology
Associate Director

Patrick W. Gagnon, A.A.S., Empire State
Assistant Director

Co-Curricular Education and Programming

Kathryn E. McCaffrey, B.A., Massachusetts
College of Liberal Arts; M.Ed., Colorado State
Director of Co-Curricular Education and
Programming and of the E.J. Noble University
Center

Craig A. Harris, B.S., SUNY Fredonia; M.E.,
SUNY Buffalo
Associate Director

Jamie L. Barrass, B.A., St. Lawrence
Coordinator

Leadership Academy

Marguerite K. Cornwell, B.A., M.Ed.,
St. Lawrence

Project Director, Student Leadership Academy

Anna M. K. Townsend, B.A., Temple; M.Ed.,
St. Lawrence

Project Director, David Garner Center for
Collegiate Volunteerism

Division of University Advancement

Michael P. Archibald, B.A., Colby
Vice President for University Advancement

Development

Jeffrey G. Abke, B.A., Miami (Ohio)
Assistant Director of Alumni and Parent
Programs

Peter A. Beekman, B.S., Vermont
Associate Vice President for Development

Leigh D. Berry, B.A., St. Lawrence
Assistant to the Director of Alumni and Parent
Programs

Bradford D. S. Catling, B.A., Loyola College;
B.S., M.S., Maine
Associate Director of Major Gifts/Director of
Parent Leadership Giving

Janet N. Collins, B.A., St. Lawrence
Assistant Director of Development Research

Gregory J. Griffin, B.A., St. Lawrence; M.B.A.,
Alfred
Director of Alumni and Parent Programs

Katrina T. Johnson, B.A., North American
Baptist College; M.A., North American Baptist
Seminary
Director of Donor Relations

Barbara J. Knauf, B.A., George Mason
Assistant Director of Alumni and Parent Programs

Joseph E. Kremer, B.A., Hamilton; M.S.,
Florida State
Associate Director of Major Gifts

Robert E. Larrabee, B.S., M.A., St. Lawrence
Assistant Director of Alumni and Parent Programs

Jennifer L. McElroy, B.A., Mississippi; J.D., Cornell
Associate Director of Planned Giving and Gift Planning Advisor

Susan M. Pankey, B.S., Syracuse
Director of Corporate and Foundation Relations

Thomas R. Pynchon, B.S., Vermont
Director of Planned Giving

Kimberly M. Robinson, B.S., St. Lawrence
Associate Director of Alumni and Parent Programs

Stacie H. Sears, B.A., St. Lawrence
Associate Director of Major Gifts

Julie M. Silver, B.A., St. Lawrence
Director of Advancement Services

Caroline Smith, B.A., McGill; B.A., SUNY Potsdam
Grants Manager, Corporate and Foundation Relations

University Communications

Kenneth D. Alger, B.A., M.Ed., St. Lawrence
Associate Director, Graphic Design

Neal S. Burdick, B.A., St. Lawrence; M.A., Ph.D., Case Western Reserve
Associate Director, Editor

Lisa M. Cania, B.A., Wells; M.Ed., St. Lawrence
Associate Vice President for University Relations

Macreena A. Doyle, B.A., Nazareth
Associate Director, Media Relations

Tara LaFredo, B.A., St. Bonaventure
University Photographer

Mark R. Mende, B.A., Canisius
Coordinator of Electronic Communications

Tracy L. Robertson, B.A., SUNY Potsdam
Assistant Director, Publications Design

WSLU-FM Radio

Lamar Bliss, B.A., St. Lawrence
Announcer (part-time)

Sandra P. Demarest, B.A., St. Lawrence
Development Director

Kathleen Fitzgerald
Membership Director

William Haenel
Web Manager

Dale Hobson, B.A., SUNY Potsdam
Online Outreach Coordinator

Joel R. Hurd, B.A., Memphis
Production Manager

Kelly J. Jacoby
Development Assistant

Brian Mann
Adirondack Bureau Chief

Connie Meng, B.A., St. Lawrence; M.A., Michigan
Announcer/Radio Reading Service

Todd A. Moe, B.A., St. Olaf
Morning Host/News Reporter

Shelly L. Pike Ahlfeld, B.A., M.Ed., St. Lawrence
Operations/Announcer

Ellen Z. Rocco, B.A., City College of New York
General Manager

Barbara Heller Rogers, B.S., St. Lawrence
Announcer (part-time)

Jacqueline Sauter, B.A., St. Lawrence
Program Director

Robert G. Sauter, B.S., Clarkson
Chief Engineer

Martha Foley Smith, B.A., St. Lawrence
News and Public Affairs Director

Susan Sweeney Smith, B.A., SUNY Plattsburgh
Director of Strategic Partnerships

David Sommerstein, B.A., Wesleyan; M.Ed., Harvard
News Reporter

Jody Tosti
News Reporter (part-time), Announcer (part-time)

Division of Finance

Kathryn L. Mullaney, B.S., Union
Vice President and Treasurer

Peter D. Feickert, B.A., M.B.A., Syracuse
Director of Budget and Financial Planning

Business Office

Carol Gable, B.S., Frostburg State; C.P.A.
Controller

Mary K. Cosmo, B.S., Lemoyne; C.P.A.
Assistant Controller

Richard A. Parks, B.S., SUNY Oswego
Manager of Accounting and Accounts Payable

Campus Support Services

Kathy D. Boak
Environmental Health and Safety Coordinator

Ted O. Coviello, B.A., Cornell
Director

Ruta Ozols
Buyer

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The Wharton School
Vice President

Bookstore

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Melinda Goss, B.A., William Smith
Assistant Manager

Dining and Conference Services

Cynthia Y. Atkins, B.S., R.D., Keene State;
M.Ed., St. Lawrence
Director

Killy Bobela, A.A.S., Onondaga Community
Assistant Manager

Timothy Boprey, A.A., Mater Dei
Assistant Manager

James F. Danehy, A.A.S., SUNY Canton
Manager, Dana Dining Center

Michael Denner, A.A.S., Paul Smith's
Production Manager

Dorothy C. Fletcher, A.A.S., SUNY Canton
Assistant Manager, Northstar Pub

David Geleta, A.O.S., Culinary Institute of
America; B.A., SUNY Albany
Coordinator, Conference Services

Harlan E. Lowry, A.A.S., SUNY Canton
Manager, Catering and Purchasing

Clare M. McVean, B.S., SUNY Buffalo
Manager, Cash Operations and Concessions,
Northstar Pub

Facilities Operations

Claude Banker, B.S., Northwest Christian
Director

Voss Fernandes, A.S., Corning Community
Facilities Manager

Earl A. Froats
Facilities Manager

James F. Kozsan, B.S., Clarkson
Facilities Manager

Melissa A. Miller
Facilities Manager

Richard B. Scott, A.S., SUNY Canton; B.S.,
Clarkson
Facilities Manager

Marcus O. Sherburne, A.A., B.Tech., SUNY
Cobleskill
Grounds Manager

Human Resources

Theresa C. Cochrane, B.S., SUNY Plattsburgh
Assistant Director

Susan M. Cypert, B.A., SUNY Albany; M.S.Ed.,
Northern Illinois; M.B.A., Clarkson
Associate Vice President

Sharon P. Pinkerton, B.A., St. Lawrence
Associate Director

Division of Information Technology

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Chicago
Vice President

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A/V Coordinator Technology Specialist

Frederick A. Brousseau, A.A.S., Paul Smith's
Director of Communications

Edna Dana
Associate Director of Telecommunications

Terry S. Friot, A.A.S., SUNY Canton, B.A.,
St. Lawrence
Systems Design Administrator

Jedediah Hock, B.S., St. Lawrence
Assistant System Manager

Agnes H. Jarvis, B.A., LeMoyné; M.S., Syracuse
Network Software Administrator/Programmer

James R. Mattice, B.S., St. Lawrence
Manager, Microcomputer User Services

Jeffrey R. Miller, B.A., Western Connecticut
State; M.A., Wesleyan
Computer Specialist

Lawrence G. Mitchell, B.S., SUNY Potsdam;
M.Ed., St. Lawrence
Programming Manager

Bryan P. Morrell, A.A.S., SUNY Canton; B.S.,
SUNY Institute of Technology at Utica/Rome
Systems Administrator, VM/VME and Novell
Systems

René M. Murphy
Student Services Coordinator/PC Technician

Daniel Schroder, B.A., St. Lawrence
Computer Specialist

Sondra Smith, B.A., M.S., SUNY Potsdam
Coordinator of Training

Gregory A. Stahl
Communications Systems Administrator

Paul T. Stowe, B.S., SUNY Potsdam
Senior Programmer/Analyst

Cory Towne, B.A., SUNY Potsdam
Manager, Server Management and Senior
Systems Manager

Philip J. Trivilino
Manager, Network Infrastructure

Carine E. Ullom, B.S., McPherson; M.A.,
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St. Lawrence At A Glance

Founded: April 3, 1856; oldest continuously coeducational institution of higher learning in New York state.

Location: Canton, New York, a county seat and regional business center in the St. Lawrence River Valley; population 6,000.

Curriculum: A four-year program of study in the liberal arts. The academic calendar consists of fall and spring semesters and optional summer terms. Graduate programs in education.

Degrees Granted: Bachelor of Arts, Bachelor of Science; Master of Education; Certificates of Advanced Studies in Educational Administration and in Counseling and Development.

Major Fields of Study: African studies, anthropology, Asian studies, biochemistry, biology, biology/physics, Canadian studies, chemistry, computer science, economics, economics/mathematics, English (literature or writing), environmental studies, fine arts, geology, geology/physics, global studies, government, history, mathematics, mathematics/computer science, modern languages (French, German, Spanish, multi-language), multi-field (self-designed), music, neuroscience, philosophy, physics, psychology, religious studies, sociology, speech and theatre.

Minor Fields of Study: African studies, anthropology, applied statistics, Asian studies, biology, Canadian studies, Caribbean and Latin American studies, chemistry, computer science, cultural encounters, economics, education, English (literature or writing) European studies, fine arts, gender studies, geology, government, history, mathematics, multi-field, music, Native American studies, outdoor studies, philosophy, physics, psychology, religious studies, sociology, speech and theatre, sports studies and exercise science.

Special Programs: 3+2 Basic Engineering Combined Plan Program with seven engineering institutions; 4+1 MBA Program at Clarkson University. Programs with American University in Washington, D.C., and Fisk University in Nashville, Tenn., and the Adirondack Semester.

International Programs: Australia, Austria, Canada, Costa Rica, Denmark, England, France, India, Italy, Japan, Kenya, Spain and Trinidad; International Student Exchange Program (ISEP).

Student Enrollment: Approximately 2,000 undergraduate and 130 graduate, 54% women and 46% men; about 6.5% are U.S. minorities. Students come from 36 states, the District of Columbia and 19 foreign countries.

Number of Faculty: 160 full-time, 32 part-time.

Student-Faculty Ratio: 11:1

Financial Aid: In 2001-02, 85.6% of the student body received some form of aid.

Cost: Comprehensive fee (tuition, room and board), and required fees, \$34,035 in 2002-03.

Alumni: 23,913 as of October 2001. The St. Lawrence Alumni Association, founded in 1877, represents the alumni body at large. Representatives of class groups are named each year to a governing body—the Executive Council. The Alumni Association assists in admissions, fundraising, career counseling, public relations and recognition of alumni for their service to the University and their communities.

Graduation Rates: The following is the percentage of students who graduated within five years of matriculating:

Class of '00: 71.5%

Class of '99: 70.2%

Class of '98: 70.8%

Class of '97: 73.3%

Class of '96: 72.5%

Outcomes: For the Class of 2000 (most recent class for which figures are available), 95.3% are in full-time employment or graduate and professional schools.

Library Facilities: Owen D. Young Library and Launder Science Library: seating for 914 students, over 500,000 volumes, over 400,000 documents, 2,000 print journal subscriptions, 8,500 e-journals over the campus network.

Computer Facilities: More than 600 University-owned PCs; 245 Macintosh computers; 330 student lab computers; PCs on all faculty and administrative desktops; IBM mainframe; UNIX, Windows NT, Windows 2000 and Novell servers; network connections to all on-campus classrooms, offices and residence rooms; full Internet access.

Residences: 12 residence halls for students; eight Greek houses; several theme cottages and intentional living communities.

Athletic Facilities: Indoor facilities include two field houses, each with artificial turf infield, track and tennis courts; two regulation basketball courts; competition swimming and diving pool; six squash courts; 133-station fitness center; climbing wall; ice arena; equestrian arena. Outdoor facilities include competition and practice fields for soccer, softball, baseball, football, lacrosse and field hockey along with a lighted artificial turf field; six lighted tennis courts; lighted all-weather nine-lane track and lighted football/track stadium; 18-hole championship golf course. Recreation facilities include jogging/walking trail, cross country/mountain bike trails, intramural fields, outdoor basketball and volleyball courts. Varsity teams number 32 (15 men's, 16 women's and one coeducational). Men's and women's ice hockey are NCAA Division I; the remainder are Division III, with the exception of equestrian, which is not an NCAA sport. Intramural and club teams flourish in several sports and activities, depending on student interest.