Environmental Studies

This section presents the requirements for programs in:

- Environmental Studies B.A. Honours
- Environmental Studies B.A.
- Minor in Environmental Studies

Program Requirements

Approved Environmental Studies Electives

Please note that the Approved Electives below may have prerequisite requirements or could be cross-listed.

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<td>ARCU 3902 [0.5]</td>
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<td>ARCC 3004 [0.5]</td>
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<td>ERTH 2415 [0.5]</td>
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First Year Seminars

| FYSM 1101 [1.0]        | Location is Everything                          |
| FYSM 1107 [1.0]        | Social Justice and the City                     |
| FYSM 1108 [0.5]        | Sustainable Environments                        |
| FYSM 1610 [1.0]        | Understanding Environmental Discourse           |

Geomatics

| GEOM 1004 [0.5]        | Maps, Satellites and the Geospatial Revolution  |
| GEOM 2007 [0.5]        | Vector GIS: Points, Lines and Polygons          |
| GEOM 3002 [0.5]        | Introduction to Remote Sensing                  |
| GEOM 3005 [0.5]        | Geospatial Analysis                             |
| GEOM 4003 [0.5]        | Remote Sensing of the Environment               |
| GEOM 4009 [0.5]        | Custom Geomatics Applications                   |

Geography

| GEOG 1010 [0.5]        | Global Environmental Systems                    |
| GEOG 1020 [0.5]        | People, Places and Environments                 |
| GEOG 2013 [0.5]        | Weather and Water                               |
| GEOG 2014 [0.5]        | The Earth's Surface                             |
| GEOG 2020 [0.5]        | Ecosystems of Canada                            |
| GEOG 2023 [0.5]        | Cities, Inequality and Urban Change             |
| GEOG 2200 [0.5]        | Global Connections                              |
| GEOG 2300 [0.5]        | Space, Place and Culture                        |
| GEOG 2500 [0.5]        | Climate Change: Social Science Perspectives      |
| GEOG 2600 [0.5]        | Geography Behind the Headlines                  |
| GEOG 3001 [0.5]        | Doing Qualitative Research                      |
| GEOG 3003 [0.5]        | Quantitative Geography                          |
| GEOG 3010 [0.5]        | Field Methods in Physical Geography             |
| GEOG 3021 [0.5]        | Geographies of Culture and Identity             |
| GEOG 3022 [0.5]        | Environmental and Natural Resources             |
| GEOG 3023 [0.5]        | Cities in a Global World                        |
| GEOG 3024 [0.5]        | Understanding Globalization                     |
| GEOG 3030 [0.5]        | Regional Field Excursion                        |
Bachelor of Arts  
Environmental Studies  
B.A. Honours (20.0 credits)

A. Credits Included in the Major CGPA (11.0 credits)

1. 1.0 credit in:  
   - ENST 1000 [0.5] Introduction to Environmental Studies  
   or ENST 1020 [0.5] People, Places and Environments  
   - GEOG 1010 [0.5] Global Environmental Systems

2. 1.0 credit in:  
   - ENST 2000 [0.5] Environmental Justice  
   - ENST 2001 [0.5] Sustainable Futures: Environmental Challenges and Solutions

3. 0.5 credit from:  
   - GEOG 2013 [0.5] Weather and Water  
   - GEOG 2014 [0.5] The Earth's Surface  
   - GEOG 2020 [0.5] Ecosystems of Canada

4. 1.0 credit in:  
   - ENST 2005 [0.5] Introduction to Qualitative Research  
   - ENST 2006 [0.5] Introduction to Quantitative Research

5. 1.0 credit in:  
   - ENST 3000 [0.5] Nature, Environment and Society  
   - ENST 3022 [0.5] Environment and Natural Resources

6. 0.5 credit from:  
   - ENST 3005 [0.5] Studies in Population  
   - ANTH 4036 [0.5] Special Topics in Science and Technology Studies

7. 1.0 credit from:  
   - ECON 3804 [0.5] Environmental Economics  
   - GEOG 3206 [0.5] Health, Environment, and Society  
   - GEOG 3209 [0.5] Sustainability and Environment in the South  
   - GEOG 3501 [0.5] Geographies of the Canadian North  
   - HRSJ 3503 [0.5] Global Environmental Justice  
   - LAWS 3800 [0.5] Law of Environmental Quality  
   - PHIL 3380 [0.5] Environments, Technology and Values  
   - PSCI 3801 [0.5] Environmental Politics  
   - TSES 3002 [0.5] Energy and Sustainability
### 8. 0.5 credit from:
- ENST 3900 [0.5] Honours Field Course
- GEOG 3030 [0.5] Regional Field Excursion

### 9. 0.5 credit in:
- ENST 4000 [0.5] Environmental Studies Seminar

### 10. 0.5 credit from:
- ENST 4006 [0.5] Environmental Policy Analysis
- GEOG 4022 [0.5] Seminar in People, Resources and Environmental Change
- GEOG 4023 [0.5] Seminar in Special Topics on the City
- GEOG 4004 [0.5] Environmental Impact Assessment
- ENST 4050 [0.5] Environmental and Geographic Education

### 11. 1.0 credit in:
- **a) Thesis pathway**
  - 1.0 credit from:
    - ENST 4906 [1.0] Honours Research Project
    - ENST 4907 [1.0] Honours Research Essay
  - or **b) Course pathway**
    - 1.0 credit in Approved Environmental Studies Electives at the 4000 level

### 12. 0.5 credit in:
- **a) Co-op students must complete:**
  - Approved Environmental Studies electives at 4000 level, excluding ENST 4001 and ENST 4002
- **b) All other students must complete one of:**
  - ENST 4001 [0.5] Environmental Studies Practicum I
  - ENST 4002 [0.5] Environmental Studies Practicum II

### 13. 1.0 credit in Approved Environmental Studies Electives at the 3000 level or above

### 14. 1.0 credit in Approved Environmental Studies Electives

### B. Credits Not Included in the Major CGPA (8.0 credits)
- 9.0 credits in free electives.

### Total Credits 20.0

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### Note:
It may be necessary to use some of the free elective credits to fulfill prerequisite requirements for courses in the Major.

### Environmental Studies B.A. (15.0 credits)

#### A. Credits Included in the Major CGPA (7.0 credits)

### 1. 1.0 credit in:
- ENST 1000 [0.5] Introduction to Environmental Studies
  - or ENST 1020 [0.5] People, Places and Environments
- GEOG 1010 [0.5] Global Environmental Systems

### 2. 1.0 credit in:
- ENST 2000 [0.5] Environmental Justice
- ENST 2001 [0.5] Sustainable Futures: Environmental Challenges and Solutions

### 3. 0.5 credit from:
- GEOG 2013 [0.5] Weather and Water
- GEOG 2014 [0.5] The Earth’s Surface
- GEOG 2020 [0.5] Ecosystems of Canada

### 4. 1.0 credit from:
- ENST 2005 [0.5] Introduction to Qualitative Research
- ENST 2006 [0.5] Introduction to Quantitative Research
- GEOM 1004 [0.5] Maps, Satellites and the Geospatial Revolution
- ENST 2007 [0.5] Environmental and Geographic Education

### 5. 1.0 credit in:
- ENST 3000 [0.5] Nature, Environment and Society
- ENST 3022 [0.5] Environmental and Natural Resources

### 6. 0.5 credit from:
- INDG 2015 [0.5] Indigenous Relationalities, Kinships, and知识
- PHIL 2380 [0.5] Introduction to Environmental Ethics

### 7. 1.0 credit in Approved Environmental Studies Electives at the 3000 level or above

### 8. 1.0 credit in Approved Environmental Studies Electives

### Minor in Environmental Studies
Open to all undergraduate students not in Environmental Studies programs.

Students are required to present a Minor CGPA of 4.00 or higher at graduation in order to be awarded a Minor in Environmental Studies.

### Minor in Environmental Studies (4.0 credits)

#### 1. 1.0 credit in:
- FYSM 1101 [1.0] Location is Everything
  - or FYSM 1107 [1.0] Social Justice and the City

#### OR

#### 0.5 credit from:
- ENST 1000 [0.5] Introduction to Environmental Studies
- FYSM 1108 [0.5] Sustainable Environments
- ENST 1020 [0.5] People, Places and Environments

#### and 0.5 credit from:
- GEOG 1010 [0.5] Global Environmental Systems
- GEOM 1004 [0.5] Maps, Satellites and the Geospatial Revolution

#### 2. 1.0 credit from:
- ENST 2000 [0.5] Environmental Justice
- ENST 2001 [0.5] Sustainable Futures: Environmental Challenges and Solutions
- ENST 2500 [0.5] Climate Change: Social Science Perspectives

#### 3. 1.0 credit from:
- ENST 3000 [0.5] Nature, Environment and Society
- ENST 3022 [0.5] Environmental and Natural Resources
- GEG 3501 [0.5] Geographies of the Canadian North

#### 4. 1.0 credit from:
- ENST 4006 [0.5] Environmental Policy Analysis
- ENST 4050 [0.5] Environmental and Geographic Education
- GEG 3206 [0.5] Health, Environment, and Society

### Total Credits 15.0

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Note: It may be necessary to use some of the free elective credits to fulfill prerequisite requirements for courses in the Major.

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Minor in Environmental Studies
Open to all undergraduate students not in Environmental Studies programs.

Students are required to present a Minor CGPA of 4.00 or higher at graduation in order to be awarded a Minor in Environmental Studies.
B.A. Regulations
The regulations presented below apply to all Bachelor of Arts programs. In addition to the requirements presented here, students must satisfy the University regulations common to all undergraduate students including the process of Academic Continuation Evaluation (consult the Academic Regulations of the University section of this Calendar).

First-Year Seminars
B.A. degree students are strongly encouraged to include a First-Year Seminar (FYSM) during their first 4.0 credits of registration. Students are limited to 1.0 credit in FYSM and can only register in a FYSM while they have first-year standing in their B.A. program.

Breadth Requirement
Among the credits presented at graduation, students in both the B.A. and the B.A. Honours degrees and B.Co.M.S. are required to include 3.0 breadth credits, which must include 1.0 credit in three of the four breadth areas identified below. Credits that fulfill requirements in the Major, Minor, Concentration, Specialization, or Stream may also be used to fulfill the Breadth Requirement.

Students admitted with a completed university degree are exempt from breadth requirements.

Students in the following interdisciplinary programs are exempt from the B.A. breadth requirement.

• African Studies
• Criminology and Criminal Justice
• Environmental Studies
• Human Rights
• Human Rights and Social Justice

Breadth Area 1: Culture and Communication
American Sign Language, Art History, Art and Culture, Communication and Media Studies, Digital Humanities, English, Film Studies, French, Journalism, Media Production and Design, Music, and Languages (Arabic, English as a Second Language, German, Greek, Hebrew, Indigenous Languages, Italian, Japanese, Korean, Latin, Mandarin, Portuguese, Russian, Spanish)

Breadth Area 2: Humanities

Breadth Area 3: Science, Engineering, and Design

Breadth Area 4: Social Sciences

Declared and Undeclared Students
Degree students are considered "Undeclared" if they have been admitted to a degree, but have not yet selected and been accepted into a program within that degree. The status "Undeclared" is available only in the B.A. and B.Sc. degrees. Undeclared students must apply to enter a program upon or before completing 3.5 credits.
Change of Program Within the B.A. Degree
To transfer to a program within the B.A. degree, applicants must normally be Eligible to Continue (EC) in the new program, by meeting the CGPA thresholds described in Section 3.1.9 of the Academic Regulations of the University.

Applications to declare or change programs within the B.A. degree online must be made online through Carleton Central by completing a Change of Program Elements (COPE) application form within the published deadlines. Acceptance into a program, or into a program element or option, is subject to any enrollment limitations, as well as specific program, program element, or option requirements as published in the relevant Calendar entry.

Minors, Concentrations, and Specializations
Students may add a Minor, Concentration, or Specialization by completing a Change of Program Elements (COPE) application form online through Carleton Central. Acceptance into a Minor, Concentration, or Specialization normally requires that the student be Eligible to Continue (EC) and is subject to any specific requirements of the intended Minor, Concentration, or Specialization as published in the relevant Calendar entry and in Section 3.1.9 of the Academic Regulations of the University.

Mention : français
Students registered in certain B.A. programs may earn the diploma notation Mention : français by completing part of their program requirements in French, and by demonstrating knowledge of the history and culture of French Canada. The general requirements are listed below. For more specific details, consult the departmental program entries.

Students in a B.A. Honours program must present:
1. 1.0 credit in French language;
2. 1.0 credit devoted to the history and culture of French Canada;
3. 1.0 credit at the 2000- or 3000-level in the Honours discipline taken in French; and
4. 1.0 credit at the 4000-level in the Honours discipline taken in French.

Students in a B.A. program must present:
1. 1.0 credit in advanced French;
2. 1.0 credit devoted to the history and culture of French Canada;
3. 1.0 credit at the 2000- or 3000-level in the Major discipline taken in French.

Students in Combined Honours programs must fulfil the Mention : français requirement in both disciplines.

Courses taught in French (Items 3 and 4, above) may be taken at Carleton, at the University of Ottawa on the Exchange Agreement, or at a francophone university on a Letter of Permission. Students planning to take courses on exchange or on a Letter of Permission should take careful note of the residence requirement for a minimum number of Carleton courses in their programs. Consult the Academic Regulations of the University section of this Calendar for information regarding study on exchange or Letter of Permission.

Co-operative Education
For more information about how to apply for the Co-op program and how the Co-op program works please visit the Co-op website.

All students participating in the Co-op program are governed by the Undergraduate Co-operative Education Policy.

Undergraduate Co-operative Education Policy
Admission Requirements
Students can apply to Co-op in one of two ways: directly from high school, or after beginning a degree program at Carleton.

If a student applies to a degree program with a Co-op option from high school, their university grades will be reviewed two terms to one year prior to their first work term to ensure they meet the academic requirements after their first or second year of study. The time at which the evaluation takes place depends on the program of study. Students will automatically receive an admission decision via their Carleton email account.

Students who did not request Co-op at the time they applied to Carleton can request Co-op after they begin their university studies. To view application instructions and deadlines, please visit carleton.ca/co-op.

To be admitted to Co-op, a student must successfully complete 5.0 or more credits that count towards their degree, meet the minimum CGPA requirement(s) for the student’s Co-op option, and fulfil any specified course prerequisites. To see the unique admission and continuation requirements for each Co-op option, please refer to the specific degree programs listed in the Undergraduate Calendar.

Participation Requirements
COOP 1000
Once a student has been given admission or continuation confirmation to the co-op option s/he must complete and pass COOP 1000 (a mandatory online 0.0 credit course). Students will have access to this course a minimum of two terms prior to their first work term and will be notified when to register.

Communication with the Co-op Office
Students must maintain contact with the co-op office during their job search and while on a work term. All email communication will be conducted via the students’ Carleton email account.

Employment
Although every effort is made to ensure a sufficient number of job postings for all students enrolled in the co-op option of their degree program, no guarantee of employment can be made. Carleton’s co-op program operates a competitive job search process and is dependent upon current market conditions. Academic performance, skills, motivation, maturity, attitude and
potential will determine whether a student is offered a job. It is the student’s responsibility to actively conduct a job search in addition to participation in the job search process operated by the co-op office. Once a student accepts a co-op job offer (verbally or written), his/her job search will end and access to co-op jobs will be removed for that term. Students that do not successfully obtain a co-op work term are expected to continue with their academic studies. The summer term is the exception to this rule. Students should also note that hiring priority is given to Canadian citizens for co-op positions in the Federal Government of Canada.

Registering in Co-op Courses
Students will be registered in a Co-op Work Term course while at work. The number of Co-op Work Term courses that a student is registered in is dependent upon the number of four-month work terms that a student accepts.

While on a co-op work term students may take a maximum of 0.5 credit throughout each four-month co-op work term. Courses must be scheduled outside of regular working hours.

Students must be registered as full-time before they begin their co-op job search. All co-op work terms must be completed before the beginning of the final academic term. Students may not finish their degree on a co-op work term.

Work Term Assessment and Evaluation
To obtain a Satisfactory grade for the co-op work term students must have:

1. A satisfactory work term evaluation by the co-op employer;
2. A satisfactory grade on the work term report.

Students must submit a work term report at the completion of each four-month work term. Reports are due on the 16th of April, August, and December and students are notified of due dates through their Carleton email account.

Workplace performance will be assessed by the workplace supervisor. Should a student receive an unsatisfactory rating from their co-op employer, an investigation by the co-op program manager will be undertaken. An unsatisfactory employer evaluation does not preclude a student from achieving an overall satisfactory rating for the work term.

Graduation with the Co-op Designation
In order to graduate with the co-op designation, students must satisfy all requirements for their degree program in addition to the requirements according to each co-op program (i.e. successful completion of three or four work terms).

Note: Participation in the co-op option will add up to one additional year for a student to complete their degree program.

Voluntary Withdrawal from the Co-op Option
Students may withdraw from the co-op option of their degree program during a study term ONLY. Students at work may not withdraw from the work term or the co-op option until s/he has completed the requirements of the work term.

Students are eligible to continue in their regular academic program provided that they meet the academic standards required for continuation.

Involuntary or Required Withdrawal from the Co-op Option
Students may be required to withdraw from the co-op option of their degree program for one or any of the following reasons:

1. Failure to achieve a grade of SAT in COOP 1000
2. Failure to pay all co-op related fees
3. Failure to actively participate in the job search process
4. Failure to attend all interviews for positions to which the student has applied
5. Declining more than one job offer during the job search process
6. Continuing a job search after accepting a co-op position
7. Dismissal from a work term by the co-op employer
8. Leaving a work term without approval by the Co-op manager
9. Receipt of an unsatisfactory work term evaluation
10. Submission of an unsatisfactory work term report

Standing and Appeals
The Co-op and Career Services office administers the regulations and procedures that are applicable to all co-op program options. All instances of a student’s failure during a work term or other issues directly related to their participation in the co-op option will be reported to the academic department.

Any decision made by the Co-op and Career Services office can be appealed via the normal appeal process within the University.

International Students
All International Students are required to possess a Co-op Work Permit issued by Immigration, Refugees and Citizenship Canada before they can begin working. It is illegal to work in Canada without the proper authorization. Students will be provided with a letter of support to accompany their application. Students must submit their application for their permit before being permitted to view and apply for jobs on the Co-op Services database. Confirmation of a position will not be approved until a student can confirm they have received their permit. Students are advised to discuss the application process and requirements with the International Student Services Office.

B.A. Honours Environmental Studies: Co-op Admission and Continuation Requirements

• Maintain full-time status in each study term;
• Be eligible to work in Canada (for off-campus work)
• Have successfully completed COOP 1000 [0.0]

In addition to the following:

1. Registered as a full-time student in the B.A. Honours Environmental Studies program;
2. Obtained third-year standing;
3. Successfully completed, by the start-date of the first work term, ENST 2005, ENST 2006, and ENST 3900; 4. Obtained an Overall CGPA of at least 9.50 and a Major CGPA of at least 9.50. These CGPAs must be maintained throughout the duration of the degree.

B.A. Honours Environmental Studies students must successfully complete three (3) work terms to obtain the Co-op Designation.

Co-op work term course: ENST 3999

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Legend
S: Study
W: Work

Admissions Information

Admission Requirements are for the 2023-24 year only, and are based on the Ontario High School System. Holding the minimum admission requirements only establishes eligibility for consideration. The cut-off averages for admission may be considerably higher than the minimum. See also the General Admission and Procedures section of this Calendar. An overall average of at least 70% is normally required to be considered for admission. Some programs may also require specific course prerequisites and prerequisite averages and/or supplementary admission portfolios. Higher averages are required for admission to programs for which the demand for places by qualified applicants exceeds the number of places available. The overall average required for admission is determined each year on a program by program basis. Consult admissions.carleton.ca for further details.

Note: Courses listed as recommended are not mandatory for admission. Students who do not follow the recommendations will not be disadvantaged in the admission process.

Admissions Information

Admission requirements are based on the Ontario High School System. Prospective students can view the admission requirements through the Admissions website at admissions.carleton.ca. The overall average required for admission is determined each year on a program-by-program basis. Holding the minimum admission requirements only establishes eligibility for consideration; higher averages are required for admission to programs for which the demand for places by qualified applicants exceeds the number of places available. All programs have limited enrolment and admission is not guaranteed. Some programs may also require specific course prerequisites and prerequisite averages and/or supplementary admission portfolios. Consult admissions.carleton.ca for further details.

Note: If a course is listed as recommended, it is not mandatory for admission. Students who do not follow the recommendations will not be disadvantaged in the admission process.

Admission Requirements

Degrees
- Bachelor of Arts (B.A.) (Honours)
- Bachelor of Arts (B.A.)

First Year

For B.A. and B.A. (Honours)
The Ontario Secondary School Diploma (OSSD) or equivalent including a minimum of six 4U or M courses. The six 4U or M courses must include a 4U course in English (or anglais). Applicants submitting an English language test to satisfy the requirements of the English Language Proficiency section of this Calendar may use that test to also satisfy the 4U English prerequisite requirement.

Biology
For the major in Biology in the B.A. program, in addition to the 4U English, a 4U course in Chemistry is required. Advanced Functions, and Calculus and Vectors are recommended.

Advanced Standing
Applications for admission beyond first year will be assessed on their merits. Applicants must normally be Eligible to Continue in their year level, in addition to meeting the CGPA thresholds described in Section 3.1.9 of the Academic Regulations of the University. Advanced standing will be granted only for those subjects assessed as being appropriate for the program and the stream selected.

Co-op Option

Direct Admission to the 1st Year of the Co-op Option
Co-op is available for the following Majors in the B.A. (Honours) degree: Anthropology, English, Environmental Studies, European and Russian Studies, French, Geography, Geomatics, History, Law, Political Science, Psychology, Sociology.

Applicants must:
1. meet the required overall admission cut-off average and prerequisite course average. These averages may be higher than the stated minimum requirements;
2. be registered as a full-time student in the Bachelor of Arts Honours with one of the majors listed above;
3. be eligible to work in Canada (for off-campus work placements).

Meeting the above requirements only establishes eligibility for admission to the program. The prevailing job market may limit enrolment in the co-op option. Students should also note that hiring priority is given to Canadian citizens for co-op positions in the Public Service Commission.

Note: continuation requirements for students previously admitted to the co-op option and admission requirements for the co-op option after beginning the program are
described in the Co-operative Education Regulations section of this Calendar.

**Advanced Standing**

**B.A. and B.A. (Honours) Program**

Applications for admission to the second or subsequent years will be assessed on their merits. Advanced standing will be granted only for those courses that are determined to be appropriate.

**Environmental Studies (ENST) Courses**

**ENST 1000 [0.5 credit]**

**Introduction to Environmental Studies**

A critical introduction to the scholarly field of environmental studies, with an emphasis on society-environment entanglements. It is designed to engage with environmental issues. Possible themes include population, scarcity, institutions, commons, risks, hazards, markets, political economy, and the social construction of nature.

Precludes additional credit for FYSM 1100 and ENST 1001 (no longer offered).

Lecture two hours and workshops/tutorials one hour weekly.

**ENST 1020 [0.5 credit]**

**People, Places and Environments**

Introduction to human geography. Examination of relationships between people, communities, society and the natural environment at local to global scales. Population change, cultural patterns, and historical, economic, political and environmental forces that shape human activity and experiences from place to place.

Includes: Experiential Learning Activity

Also listed as GEOG 1020.

Lectures two hours a week and tutorial one hour a week.

**ENST 2000 [0.5 credit]**

**Environmental Justice**

Contemporary and foundational theories, practice and praxis of environmental justice in Canadian and comparative settings. Combine and communicate about aspects of the physical, built and social environments to understand how uneven conditions develop. Strategies and ideas to move towards greater equity and good environmental relationships.

Prerequisite(s): second-year standing in the Environmental Studies program or permission of the Department.

Lecture two hours a week, discussion one hour a week.

**ENST 2001 [0.5 credit]**

**Sustainable Futures: Environmental Challenges and Solutions**

Individual and collective responses to pressing environmental problems. Innovative ways in which the environment can be protected and restored, taking into consideration socioeconomic, political and cultural factors. Topics include environmental lifestyles, sustainable communities, food systems, environmental design, and political activism.

Includes: Experiential Learning Activity

Prerequisite(s): second-year standing in the Environmental Studies program or permission of the Department.

Lectures, seminars and field work three hours a week.

**ENST 2005 [0.5 credit]**

**Introduction to Qualitative Research**

Introduction to the research process, from generating questions through to reporting results. Topics include intensive and extensive research approaches; the use of surveys, interviews and other data collection methods; the analysis of qualitative information; and the ethical dimensions of doing research with people and communities.

Includes: Experiential Learning Activity

Also listed as GEOG 2005.

Prerequisite(s): 1.0 credit in GEOG or ENST at the 1000-level and second-year standing, or permission of the Department.

Lectures two hours a week, workshop two hours a week.

**ENST 2006 [0.5 credit]**

**Introduction to Quantitative Research**

Introduction to solving problems using descriptive and inferential statistical methods. Graphical and numerical tools to describe distributions. Probability, sampling and estimates, and hypothesis testing. Fundamentals of spatial statistics and analysis.

Includes: Experiential Learning Activity

Also listed as GEOG 2006.

Precludes additional credit for BIT 2000, BIT 2009, BIT 2100 (no longer offered), BIT 2300 (no longer offered), ECON 2210, NEUR 2002, PSCI 2702, STAT 2507, STAT 2601, STAT 2606.

Lectures two hours a week, laboratory two hours a week.

**ENST 2500 [0.5 credit]**

**Climate Change: Social Science Perspectives**

An introduction to climate change as a political, economic and socio-cultural phenomenon, including the political-economic and world-historical causes of anthropogenic greenhouse gas emissions; variations in impact and vulnerability; climate justice and other political movements; global mitigation and adaptation strategies; and proposals for radical systemic change.

Includes: Experiential Learning Activity

Also listed as GEOG 2500.

Prerequisite(s): second-year standing or permission of the department.

Lectures two hours a week, discussion groups one hour a week.
ENST 3000 [0.5 credit]
Nature, Environment and Society
Overview of social science perspectives analyzing the relationship of society and the environment. Examination of environmental problems, solutions, conditions, and interventions through the study of concepts, theories, and research drawn from a range of scholarly approaches to questions of nature.
Includes: Experiential Learning Activity
Prerequisite(s): third-year standing in Environmental Studies or permission of the department.
Lecture and discussion three hours a week.

ENST 3022 [0.5 credit]
Environmental and Natural Resources
Exploration of complexity, dynamics, uncertainty and equity issues underpinning environmental and resource issues; review and appraisal of selected contemporary methods to assess and manage environmental and natural resources.
Includes: Experiential Learning Activity
Also listed as GEOG 3022.
Prerequisite(s): third-year standing in Geography or Environmental Studies or BGInS Specialization/Stream in Globalization and Environment or permission of the Department.
Lecture three hours a week.

ENST 3900 [0.5 credit]
Honours Field Course
Field research, with a focus on data collection methods, analysis and presentation of findings. Design and conduct research that links the human and biophysical environment. Topics may change from year to year.
Includes: Experiential Learning Activity
Also listed as GEOG 3000.
Precludes additional credit for ENST 2900 (no longer offered).
Prerequisite(s): GEOG 2005/ ENST 2005 and GEOG 2006/ ENST 2006, third-year Honours standing in Environmental Studies, Geomatics, or Geography, or permission of the Department.
Normally consists of a multi-day field excursion in the Ottawa region. A supplementary charge may apply. Consult the department regarding course details.

ENST 3999 [0.0 credit]
Co-operative Work Term
Includes: Experiential Learning Activity

ENST 4000 [0.5 credit]
Environmental Studies Seminar
An advanced seminar designed to provide a capstone experience that builds upon and applies the analytical skills and interdisciplinary knowledge acquired in the Environmental Studies program. Topics vary year to year and by course section (see departmental website).
Includes: Experiential Learning Activity
Prerequisite(s): Registration is restricted to students eligible for fourth-year standing in the B.A. (Environmental Studies) Honours program.
Seminar three hours per week.

ENST 4001 [0.5 credit]
Environmental Studies Practicum I
Students apply their knowledge and research skills and gain experience through field placements in government, the private sector, non-government organisations and with community organisations in the environmental field.
Includes: Experiential Learning Activity
Prerequisite(s): registration is restricted to students eligible for fourth-year standing in the B.A. (Environmental Studies) Honours program, and permission of the Environmental Studies Co-ordinator.

ENST 4002 [0.5 credit]
Environmental Studies Practicum II
Students apply their knowledge and research skills and gain experience through field placements in government, the private sector, non-government organisations and with community organisations in the environmental field.
Includes: Experiential Learning Activity
Prerequisite(s): restricted to students in the fourth year of the Environmental Studies Honours program, and permission of the Environmental Studies Co-ordinator.

ENST 4004 [0.5 credit]
Environmental Impact Assessment
Principles, scope and purpose of environmental impact assessment, from conceptual and methodological points of view; range of environmental issues, with emphasis on Canadian case studies.
Includes: Experiential Learning Activity
Also listed as GEOG 4004.
Prerequisite(s): GEOG 3022 or ENST 3022, and fourth-year Honours standing in Geography or Environmental Studies or Environmental Science, or permission of the Department.
Lectures and seminars three hours per week.

ENST 4005 [0.5 credit]
Directed Studies in Environmental Studies
Students pursue their interest in a selected theme in environmental studies on a tutorial basis with a faculty member.
Prerequisite(s): permission of the Department.
ENST 4006 [0.5 credit]
Environmental Policy Analysis
Critical examination of the creation, implementation and effectiveness of government policies related to environmental issues. Emphasis on perspectives, actors, institutions and social and economic relationships affecting policy responses to these issues, and on tools for analyzing the implications of specific policy choices.
Prerequisite(s): fourth-year Honours standing in Environmental Studies, Geography, or permission of the Department.
Seminar three hours per week.

ENST 4007 [0.5 credit]
Special Topics in Geography and Environmental Studies
Selected topics in geography and/or environmental studies.
Also listed as GEOG 4007.
Precludes additional credit for GEOG 4006 (no longer offered).
Prerequisite(s): fourth-year Honours standing in the Department or permission of the Department.
Seminar three hours per week.

ENST 4022 [0.5 credit]
Seminar in People, Resources, and Environmental Change
A selected topic or field of inquiry concerning natural resource use and environmental change.
Also listed as GEOG 4022.
Prerequisite(s): GEOG 3022 or ENST 3022 and fourth-year Honours standing in Geography or Environmental Studies or BGLnS Specialization in Globalization and Environment, or permission of the Department.
Seminar three hours per week.

ENST 4050 [0.5 credit]
Environmental and Geographic Education
Selected theoretical and applied issues concerning environmental and geographic education.
Also listed as GEOG 4050.
Prerequisite(s): Third-year honours standing in Geography or Environmental Studies, or permission of the Department.
Seminar three hours per week.

ENST 4400 [0.5 credit]
Field Studies
Field observation and methodology in a selected region, special topic or contemporary problem; on an individual or group basis.
Includes: Experiential Learning Activity
Also listed as GEOG 4000.
Prerequisite(s): third-year Honours standing and permission of the Department.
Hours to be arranged.

ENST 4450 [0.5 credit]
Community-Engaged Research
Working in partnership with local organizations, students apply their geographical knowledge to conduct community-engaged research. Student projects will generate outputs for community partners. Research topics vary year to year.
Includes: Experiential Learning Activity
Also listed as GEOG 4450.
Prerequisite(s): fourth-year standing, or permission of the department.
Lectures, discussion and project work three hours a week.

ENST 4906 [1.0 credit]
Honours Research Project
An independent investigation into a select aspect of environmental studies, supervised by a faculty member. Possible outcomes might include: workshops, audio-visual productions, lay publications, and field projects accompanied by an essay demonstrating the student’s capacity to critically reflect on the research project.
Includes: Experiential Learning Activity
Precludes additional credit for GEOG 4904/GEOM 4904 (no longer offered), GEOG 4909, GEOM 4909, GEOG 4906, GEOM 4906, and ENST 4907.
Prerequisite(s): fourth-year Honours standing in Environmental Studies, a minimum CGPA of 9.00 in the major or permission of the Department, and an approved research topic and adviser.
Hours to be arranged with faculty adviser.

ENST 4907 [1.0 credit]
Honours Research Essay
Interdisciplinary research essay on an environmental issue, carried out in consultation with a faculty supervisor. The student must consult with the undergraduate student advisor in selecting a project and a supervisor.
Includes: Experiential Learning Activity
Precludes additional credit for ENST 4906, GEOG 4909, GEOM 4909, GEOG 4904/GEOM 4904 (no longer offered), GEOG 4906 and GEOM 4906.
Prerequisite(s): fourth-year Honours standing in Environmental Studies, a minimum CGPA of 9.00 in the major or permission of the Department, and an approved research topic and adviser.
Hours to be arranged with faculty adviser.