Environmental Studies

This section presents the requirements for programs in:
- Environmental Studies B.A. Honours
- Environmental Studies B.A. General
- Minor in Environmental Studies

Program Requirements
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] Nature, Environment and Society: Theoretical Perspectives
   - 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] Physical Environments 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] Environmental Studies Colloquium
   - ENST 3022 [0.5] Environmental and Natural Resources

6. 0.5 credit in:
   - PHIL 2380 [0.5] Introduction to Environmental Ethics

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
   - HUMR 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
   - RELI 3710 [0.5] Religions and the Environment
   - 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
    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
15. 9.0 credits in free electives

Total Credits: 20.0

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. General (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] Nature, Environment and Society: Theoretical Perspectives
   - 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] Physical Environments of Canada

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

5. 0.5 credit from:
   - ENST 3900 [0.5] Honours Field Course
   - GEOG 3030 [0.5] Regional Field Excursion

6. 0.5 credit in:
   - ENST 4000 [0.5] Environmental Studies Seminar

7. 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

8. 0.5 credit from:
   - ENST 3000 [0.5] Environmental Studies Colloquium
   - ENST 3022 [0.5] Environmental and Natural Resources

9. 0.5 credit in:
   - PHIL 2380 [0.5] Introduction to Environmental Ethics

10. 0.5 credit from:
    - ENST 1000 [0.5] Introduction to Environmental Studies
    or ENST 1020 [0.5] People, Places and Environments
    - GEOG 1010 [0.5] Global Environmental Systems

11. 1.0 credit in:
    - 1.0 credit from:
      - ENST 4906 [1.0] Honours Research Project
      - ENST 4907 [1.0] Honours Research Essay
    b) All other students must complete one of:
    - ENST 4001 [0.5] Environmental Studies Practicum I
    - ENST 4002 [0.5] Environmental Studies Practicum II

12. 1.0 credit in Approved Environmental Studies Electives at the 3000 level or above
13. 1.0 credit in Approved Environmental Studies Electives
14. 1.0 credit in Approved Environmental Studies Electives
15. 9.0 credits in free electives

Total Credits: 15.0

Note: It may be necessary to use some of the free elective credits to fulfill prerequisite requirements for courses in the Major.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>GEOM 1004 [0.5]</td>
<td>Maps, Satellites and the Geospatial Revolution</td>
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<tr>
<td>ENST 3000 [0.5]</td>
<td>Environmental Studies Colloquium</td>
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<td>Climate Change: Social Science Perspectives</td>
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<td>GEOG 3501 [0.5]</td>
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<td>Environmental and Geographic Education</td>
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**Minor in Environmental Studies**

Open to all undergraduate students not in Environmental Studies programs.

**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

2. **1.0 credit from:**
   - ENST 1000 [0.5] Introduction to Environmental Studies
   - FYSM 1108 [0.5] Sustainable Environments
   - ENST 1020 [0.5] People, Places and Environments
   - GEOG 1010 [0.5] Global Environmental Systems
   - GEOM 1004 [0.5] Maps, Satellites and the Geospatial Revolution

3. **1.0 credit from:**
   - ENST 3000 [0.5] Environmental Studies Colloquium
   - ENST 3022 [0.5] Environmental and Natural Resources
   - GEOG 3501 [0.5] Geographies of the Canadian North

4. **1.0 credit from:**
   - ENST 4006 [0.5] Environmental Policy Analysis
   - GEOG 3206 [0.5] Health, Environment, and Society
   - GEOG 3209 [0.5] Sustainability and Environment in the South
   - GEOG 4004 [0.5] Environmental Impact Assessment
   - GEOG 4005 [0.5] Environmental and Geographic Education

**Total Credits**

**4.0**

**APPROVED ENVIRONMENTAL STUDIES ELECTIVES**

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

**Architecture**
- ARCU 3902 [0.5] Urban Studies (Section A)
- ARCC 3004 [0.5] Workshop: Energy and Form
- ARCC 4103 [0.5] Energy and Form
- ARCH 4105 [0.5] Theories of Landscape Design

**Biology**
- BIOL 1010 [0.5] Biotechnology and Society
- BIOL 1902 [0.5] Natural History
- BIOL 2600 [0.5] Introduction to Ecology
- BIOL 2903 [0.5] Natural History and Ecology of Ontario
- BIOL 3601 [0.5] Ecosystems and Environmental Change
- BIOL 3602 [0.5] Conservation Biology

**Business**
- BUSI 3119 [0.5] Sustainability and the Role of Business

**Earth Sciences**
- ERTH 2402 [0.5] Climate Change: An Earth Sciences Perspective
- ERTH 2415 [0.5] Natural Disasters
- ERTH 2403 [0.5] Introduction to Oceanography
- ERTH 4303 [0.5] Resources of the Earth

**Economics**
- ECON 3803 [0.5] The Economics of Natural Resources
- ECON 3804 [0.5] Environmental Economics

**Environmental Science**
- ENSC 2001 [0.5] Earth Resources and Natural Hazards: Environmental Impacts

**Environmental Studies**
- ENST 1020 [0.5] People, Places and Environments
- ENST 2001 [0.5] Sustainable Futures: Environmental Challenges and Solutions
- ENST 2005 [0.5] Introduction to Qualitative Research
- ENST 2006 [0.5] Introduction to Quantitative Research
- ENST 2500 [0.5] Climate Change: Social Science Perspectives
- ENST 3900 [0.5] Honours Field Course
- ENST 4001 [0.5] Environmental Studies Practicum I
- ENST 4002 [0.5] Environmental Studies Practicum II
- ENST 4005 [0.5] Directed Studies in Environmental Studies
- ENST 4006 [0.5] Environmental Policy Analysis
- ENST 4007 [0.5] Special Topics in Geography and Environmental Studies
- ENST 4050 [0.5] Environmental and Geographic Education
- ENST 4400 [0.5] Field Studies

**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
Students should consult with the Department when planning their program and selecting courses. Some of the Environmental Studies Approved Electives have prerequisites, which are not explicitly included in the program. Students should plan to obtain all necessary prerequisites or waivers for courses selected for this program.

**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 Performance 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. Students who have completed the Enriched Support Program (ESP) or who are required to take a minimum of one English as a Second Language (ESLA) credit are not permitted to register in a FYSM.

Breadth Requirement
Among the credits presented at graduation, students in both the B.A. General and the B.A. Honours degrees and B.Co.M.S. are required to include 3.0 breadth credits, including 1.0 credit from each of three of the four Breadth Areas identified below. Credits that fulfill requirements in the Major, Minor, Concentration or Specialization may 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, Comparative Literary 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)

Subject codes: ARAB, ARTH, ASLA, CHIN, CLST, COMS, DIGH, ENGL, ESA, FILM, FINS, FREN, GERM, GREK, HEBR, ITAL, JAPA, JOUR, KORE, LANG, LATN, MPAD, MUSI, PORT, RUSS, SPAN

Breadth Area 2: Humanities

Subject codes: AFRI, ALDS, CDNS, CHST, CLCV, DBST, DISTS, EOURR, HIST, HUMR, HUMS, INDG, LACS, LING, MEMS, PHIL, RELI, SAST, SXST, WGST

Breadth Area 3: Science, Engineering, and Design

Subject codes: AERO, ARCC, ARCH, ARCN, ARCS, ARCU, BIOC, BIOL, CHEM, CIVE, CMPS, COMP, ECOR, ELEC, ENSC, ENVE, ERTH, FOOD, HLTH, IDES, ISCI, ISCS, ISYS, ITEC, MAAE, MATH, MECH, NEUR, NSCI, PHYS, SREE, STAT, SYSC, TSES

Breadth Area 4: Social Sciences

Subject codes: ANTH, BUSI, CGSC, CRRCJ, CON, ENST, GEOG, GEOM, GINS, GPOL, INAF, IPAF, LAWS, MGDS, PADM, PAPM, POLM, PSCI, PSYC, SOCI, SOWK

Declared and Undeclared Students
Students who are registered in a program within the degree are called Declared students. Most students designate a program of study when they first apply for admission and so begin their studies as Declared students. Students may also choose to begin their studies within the B.A. degree without being registered in a program. These students are referred to as Undeclared. The recommended course pattern for Undeclared students is outlined under Undeclared in the Programs section of this Calendar. Undeclared students must apply to enter a program before beginning their second year of study. The Student Academic Success Centre offers support to Undeclared students in making this decision.

Change of Program Within the B.A. Degree
Students may transfer to a program within the B.A. degree, if upon entry to the new program they would be in Good Standing. Other applications for change of program will be considered on their merits; students may be admitted to the new program in Good Standing or on Academic Warning. Students may apply to declare or change their program within the B.A. Degree at the Registrar's Office according to the published deadlines. Acceptance into a program or into a program element or option is subject to any enrollment limitations, specific program, program element or option requirements, as published in the relevant Calendar entry.

Minors, Concentrations and Specializations
Students may apply to the Registrar's Office to be admitted to a minor, concentration or specialization during their first or subsequent years of study. Acceptance into a minor, concentration or specialization is subject to any specific requirements of the intended Minor, Concentration or Specialization as published in the relevant Calendar entry. Acceptance into a Concentration or Specialization requires that the student be in Good Standing.
Mention : Français
Students registered in certain B.A. programs may earn the notation *Mention : Français* by completing part of their requirements in French and by demonstrating a 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 and 1.0 credit at the 4000-level in the Honours discipline taken in French.

Students in a B.A. General 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 fulfill the *Mention : Français* requirement in both disciplines.

Courses taught in French (Item 3, 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 is admitted to co-op from high school, their grades will be reviewed two terms to one year prior to their first work term to ensure they continue to meet the academic requirements after their 1st or 2nd year of study. The time at which evaluation takes place depends on the program of study. Students will automatically be notified via their Carleton email account if they are permitted to continue.

Students not admitted to Carleton University with the co-op option on their degree can apply for admission via the co-operative education program website. To view application deadlines, visit carleton.ca/co-op.

Admission to the co-op option is based on the completion of 5.0 or more credits at Carleton University, the CGPA requirement for the students' academic program as well as any course prerequisites. The articulated CGPA for each program is the normal standard for assessment. Please see the specific degree program sections for the unique admission and continuation requirements for each academic program.

**English Language Proficiency**

Students admitted to Carleton based on CAEL, IELTS or TOEFL assessments and who are required to take an ESL course must take and pass the Oral Proficiency in Communicative Settings (OPECS) Test. The test must be taken before being permitted to register in COOP 1000. Admission to the co-op program can be confirmed with a minimum score of 4+.

**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 (2.0 credits). 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 Citizenship and Immigration 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 (2.0 credits);
- Be eligible to work in Canada (for off-campus work)
- Have successfully completed COOP 1000 [0.0]

In addition to the following:
1. Registered in the B.A. Honours Environmental Studies program;
2. Obtained and maintained an overall minimum CGPA of 9.5 and a minimum major CGPA of 9.5;
3. Have obtained third-year standing;
4. Successfully completed, by the start date of the first work term:
   a. the required second-year methods courses in their program (ENST 2005, ENST 2006)
   b. the required field course in their program (ENST 3900, GEOG 3000, GEOG 3010, GEOG 3030)
5. Be registered as a full-time student.

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
Work/Study Pattern:
Advanced Standing

B.A. (General and 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

Sustainability requires broadened perspectives on the Earth’s natural systems. Geographic and geomatics perspectives help us examine physical and biological environments as the basis of human societies. Includes: landscape interpretation, resources, hazards, inferring meaning from data, and predicting potential impacts of/on human actions.

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

Lecture two hours and workshops/tutorials two hours 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.

Also listed as GEOG 1020.

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

ENST 2000 [0.5 credit]

Nature, Environment and Society: Theoretical Perspectives

Examination of the shifting understandings of nature, the environment, and nature-society relations. Topics include nature as a concept, people’s relationships to the environment across the globe, environmental movements and institutions, narratives of environmental change, and political ecology approaches to understanding and combating environmental degradation.

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.

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.
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.
Also listed as GEOG 2006.
Precludes additional credit for BIT 2000, BIT 2100 (no longer offered), BIT 2300 (no longer offered), NEUR 2002, PSCI 2702, STAT 2507, 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, with an emphasis on human dimensions. Topics include anthropogenic greenhouse gas emissions, regional variations in climate change and their consequences, human vulnerability and adaptation to environmental change, and climate change politics and policies at a variety of geographic scales.
Also listed as GEOG 2500.
Prerequisite(s): ENST 1020 or GEOG 1020, or second-year standing.
Lectures three hours a week.

ENST 3000 [0.5 credit]
Environmental Studies Colloquium
Interactions among complex natural systems, social values and attitudes, and human and legal concerns are explored through invited speakers from various disciplines and agencies addressing specific environmental issues.
Prerequisite(s): third-year standing in Environmental Studies or permission of Environmental Studies.
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.
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.
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
Work Term

ENST 4000 [0.5 credit]
Environmental Studies Seminar
How societal institutions respond to environmental concerns, how various stakeholders understand the environment and how environmental priorities may be implemented in social, political and economic decision-making. Interdisciplinary case studies are used.
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
External agency setting provides the basis for translating academic training into practical involvement with environmental issues. Observation and involvement in issues and research methods used by professional environmental practitioners.
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  
External agency setting provides the basis for translating academic training into practical involvement with environmental issues. Observation and involvement in issues and research methods used by environmental practitioners.  
Prerequisite(s): restricted to students in the fourth year of the Environmental Studies Honours program, and permission of the Environmental Studies Co-ordinator.

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 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.  
Also listed as GEOG 4000.  
Prerequisite(s): third-year Honours standing and permission of the Department.  
Hours to be arranged.

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.  
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.  
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.

Summer session: some of the courses listed in this Calendar are offered during the summer. Hours and scheduling for summer session courses will differ significantly from those reported in the fall/winter Calendar. To determine the scheduling and hours for summer session classes, consult the class schedule at central.carleton.ca

Not all courses listed are offered in a given year. For an up-to-date statement of course offerings for the current session and to determine the term of offering, consult the class schedule at central.carleton.ca