ENVIRONMENTAL ECONOMICS AND POLICY CO-OP (EEP:C)

Department of Food, Agricultural and Resource Economics, Ontario Agricultural College

This major provides the foundation for applying science and economics to environmental issues to produce effective environmental policy. Students gain an understanding of the policy tools and market mechanisms for managing our natural resources effectively. Knowledge and skills learned in this major will enable students to identify, prioritize and solve environmental problems by integrating both scientific and economic theories and data. Equipped with the ability to look at current topics from the perspectives of economics, politics and environmental sciences, students have a number of interesting career opportunities in the public, private and NGO sectors. At the same time, the major fully prepares students to move onto professional and research graduate programs.

Program Requirements

The Co-op program in Environmental Economics and Policy is a four and a half year program including four work terms. Students must complete a Fall, Winter and Summer work term, and must follow the academic work schedule as outlined below (also found on the Co-operative Education website: https://www.recruitguelph.ca/cecs/). Please refer to the Co-operative Education program policy with respect to adjusting this schedule.

Environmental Economics and Policy Academic and Co-op Work Term Schedule

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Academic Semester 1</td>
<td>Academic Semester 2</td>
<td>Off</td>
</tr>
<tr>
<td>2</td>
<td>Academic Semester 3</td>
<td>COOP*1000 Work Term I</td>
<td>Academic Semester 4</td>
</tr>
<tr>
<td>3</td>
<td>COOP*2000 Work Term II</td>
<td>Academic Semester 5</td>
<td>COOP*3000 Work Term III</td>
</tr>
<tr>
<td>4</td>
<td>Academic Semester 6</td>
<td>Academic Semester 7</td>
<td>COOP*4000 Work Term IV</td>
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<td>5</td>
<td>Academic Semester 8</td>
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<td>N/A</td>
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</table>

To be eligible to continue in the Co-op program, students must meet a minimum 70% cumulative average requirement after second semester, as well as meet all work term requirements. Please refer to the Co-operative Education program policy with respect to work term performance grading, work term report grading and program completion requirements.

For additional program information students should consult with their Co-op Co-ordinator and Co-op Faculty Advisor, listed on the Co-operative Education web site.

Credit Summary

(21.50 Total Credits)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL*1070</td>
<td>Discovering Biodiversity</td>
<td>0.50</td>
</tr>
<tr>
<td>CHEM*1040</td>
<td>General Chemistry I</td>
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</tr>
<tr>
<td>ENV*1030</td>
<td>Introduction to Environmental Sciences</td>
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<tr>
<td>MATH*1080</td>
<td>Elements of Calculus I</td>
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<tr>
<td>BIOL*1090</td>
<td>Introduction to Molecular and Cellular Biology</td>
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<tr>
<td>CHEM*1050</td>
<td>General Chemistry II</td>
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<tr>
<td>COOP*1100</td>
<td>Introduction to Co-operative Education</td>
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<tr>
<td>FARE*1040</td>
<td>Introduction to Environmental Economics, Law and Policy</td>
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<tr>
<td>GEOG*1300</td>
<td>Introduction to the Biophysical Environment</td>
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<tr>
<td>ECON*1100</td>
<td>Introductory Macroeconomics</td>
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<tr>
<td>FARE*2700</td>
<td>Survey of Natural Resource Economics</td>
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<tr>
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</tr>
<tr>
<td>COOP*1000</td>
<td>Co-op Work Term I</td>
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<tr>
<td>ECON*2310</td>
<td>Intermediate Microeconomics</td>
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<tr>
<td>ECON*2410</td>
<td>Intermediate Macroeconomics</td>
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<td>STAT*2040</td>
<td>Statistics I $^2$</td>
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<td>COOP*2000</td>
<td>Co-op Work Term II</td>
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<tr>
<td>ECON*2770</td>
<td>Introductory Mathematical Economics</td>
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<tr>
<td>FARE*3170</td>
<td>Cost-Benefit Analysis</td>
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</tr>
<tr>
<td>COOP*3000</td>
<td>Co-op Work Term III</td>
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</tbody>
</table>

Note: A minimum of three Co-op work terms including a Summer, Fall, and Winter are necessary to complete the Co-op requirement. Students are reminded that 6.00 credits of their B.Sc. (Env.) degree must be at the 3000-4000 level.

The recommended program sequence is outlined below.
Students must select a minimum of 2.50 credits from the following lists:

**List A**

1. **Quantitative Methods, Research and Graduate Studies**
   - **Code**
   - **Title**
   - **Credits**
   - ECON*2100
   - Economic Growth and Environmental Quality
   - 0.50
   - ECON*3740
   - Introduction to Econometrics
   - 0.50
   - ENVS*4001
   - Project in Environmental Sciences
   - 0.50
   - 1.00 electives or restricted electives
   - 1.00

2. **Semester 7 - Winter**
   - ENVS*4002
   - Project in Environmental Sciences
   - 0.50
   - FARE*4310
   - Resource Economics
   - 0.50
   - 1.50 electives or restricted electives
   - 1.50

3. **Summer Semester (Optional)**
   - COOP*4000
   - Co-op Work Term IV
   - 0.50

4. **Semester 8 - Fall**
   - ECON*4930
   - Environmental Economics
   - 0.50
   - FARE*4290
   - Land Economics
   - 0.50
   - 1.50 electives or restricted electives
   - 1.50

Students can choose to take ECON*2740 Economic Statistics in Semester 5 instead of STAT*2040 Statistics I. Students interested in the Statistics and Environmental Risk Assessment sequence in their restricted electives should choose STAT*2040 Statistics I to satisfy the statistics requirement in the ENVS core.

**Restricted Electives**

Students in the Environmental Economics and Policy major are required to complete 6.00 credits in restricted electives. 2.50 restricted elective credits must be in FARE or ECON courses at the 3000 or 4000 level.

Courses in the following lists may be taken to satisfy the restricted electives requirement. Courses are grouped to assist students select programs of study aimed at different educational and career paths.

**List B**

Students must select a minimum of 1.00 credits from the following lists:

1. **Remote Sensing, Geographical Information Systems and Spatial Analysis**
   - **Code**
   - **Title**
   - **Credits**
   - GEOG*2420
   - The Earth From Space
   - 0.50
   - GEOG*2480
   - Mapping and GIS
   - 0.50
   - GEOG*3420
   - Remote Sensing of the Environment
   - 0.50
   - GEOG*3480
   - GIS and Spatial Analysis
   - 0.50
   - GEOG*4480
   - Applied Geomatics
   - 1.00

2. **Statistics and Environmental Risk Assessment**
   - **Code**
   - **Title**
   - **Credits**
   - STAT*2040
   - Statistics I
   - 0.50
   - STAT*3510
   - Environmental Risk Assessment
   - 0.50

   **Note:** Students interested in this sequence should take STAT*2040 Statistics I rather than ECON*2740 Economic Statistics to satisfy the statistics requirement in the ENVS core.

3. **Earth Sciences**
   - **Code**
   - **Title**
   - **Credits**
   - ENVS*2030
   - Meteorology and Climatology
   - 0.50
   - ENVS*2060
   - Soil Science
   - 0.50
   - ENVS*2310
   - Introduction to Biogeochemistry
   - 0.50
   - ENVS*3060
   - Groundwater
   - 0.50

4. **Ecology and Conservation Biology**
   - **Code**
   - **Title**
   - **Credits**
   - BIOL*2060
   - Ecology
   - 0.50
   - BIOL*3060
   - Populations, Communities and Ecosystems
   - 0.50
   - BIOL*3130
   - Conservation Biology
   - 0.50
   - BIOL*4150
   - Wildlife Conservation and Management
   - 0.50
   - BIOL*4500
   - Natural Resource Policy Analysis
   - 0.50
   - ENVS*2330
   - Current Issues in Ecosystem Science and Biodiversity
   - 0.50

5. **Toxicology and Environmental Chemistry**
   - **Code**
   - **Title**
   - **Credits**
   - ENVS*3020
   - Pesticides and the Environment
   - 0.50
   - ENVS*3040
   - Natural Chemicals in the Environment
   - 0.50
   - ENVS*3220
   - Terrestrial Chemistry
   - 0.50
   - TOX*2000
   - Principles of Toxicology
   - 0.50
   - TOX*3360
   - Environmental Chemistry and Toxicology
   - 0.50