ECOLOGICAL AND ENVIRONMENTAL INFORMATICS OPTION

This option is offered within the following major(s):

- Biological Data Sciences - College of Agricultural Sciences (http://catalog.oregonstate.edu/college-departments/agricultural-sciences/botany-plant-pathology/biological-data-sciences-bs-hbs/)

Students in the Ecological and Environmental Informatics Option take classes in general, population and community ecology.

**Option Code: 917**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTH 256</td>
<td>APPLIED DIFFERENTIAL EQUATIONS</td>
<td>4</td>
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<tr>
<td>MTH 420</td>
<td>MODELS AND METHODS OF APPLIED MATHEMATICS</td>
<td>3</td>
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<tr>
<td>or MTH 427</td>
<td>INTRODUCTION TO MATHEMATICAL BIOLOGY</td>
<td></td>
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<tr>
<td>or ST 415</td>
<td>DESIGN AND ANALYSIS OF PLANNED EXPERIMENTS</td>
<td></td>
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<tr>
<td>BI 370</td>
<td>ECOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>BOT 458</td>
<td>ECOSYSTEMS GENOMICS</td>
<td>3</td>
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**General Ecology**

Select three courses from the following, including at least one course from Group A and one course from Group B:

- BI 351 MARINE ECOLOGY
- BI 358 SYMBIOSIS AND THE ENVIRONMENT
- BI 481 BIOGEOGRAPHY
- BI 495 DISEASE ECOLOGY
- BOT 341 PLANT ECOLOGY
- BOT 413 FOREST PATHOLOGY
- BOT 440 FIELD METHODS IN PLANT ECOLOGY
- FE 341 FOREST ECOLOGY
- FW 321 APPLIED COMMUNITY AND ECOSYSTEM ECOLOGY
- FW 456 FRESHWATER ECOLOGY AND CONSERVATION
- FW 479 WETLANDS AND RIPARIAN ECOLOGY

**Group B**

- BI 483 POPULATION BIOLOGY
- BOT 442 PLANT POPULATION ECOLOGY
- FW 320 INTRODUCTORY POPULATION DYNAMICS

Other course with advisor approval

**Physical Environmental Science**

Select one course from the following:

- CSS 205 *SOIL SCIENCE
- ATS 201 *CLIMATE SCIENCE
- GEO 202 *EARTH SYSTEMS SCIENCE
- OC 201 *OCEANOGRAPHY
- OC 332 COASTAL OCEANOGRAPHY
- OC 440 BIOLOGICAL OCEANOGRAPHY
- GEO 221 *ENVIRONMENTAL GEOLOGY

Other course with advisor approval

**Environmental Informatics**

Select two courses from the following, including at least one course from Group A and one course from Group B:

- GEOG 201 *FOUNDATIONS OF GEOSPATIAL SCIENCE AND GIS
- FE 209 FOREST PHOTOGRAMMETRY AND REMOTE SENSING
- FE 257 GIS AND FOREST ENGINEERING APPLICATIONS
- GEOG 360 GISCIENCE I: GEOGRAPHIC INFORMATION SYSTEMS AND THEORY
- GEOG 480 REMOTE SENSING I: PRINCIPLES AND APPLICATIONS
- FW 303 SURVEY OF GEOGRAPHIC INFORMATION SYSTEMS IN NATURAL RESOURCE
- CROP/HORT 414 PRECISION AGRICULTURE

Other course with advisor approval

Total Hours 32-37

*Baccalaureate Core Course (BCC)

^Writing Intensive Course (WIC)