EARTH SCIENCES
UNDERGRADUATE MAJOR
(BS, HBS)

This major offers the following option(s):

- Climate Science (http://catalog.oregonstate.edu/college-departments/earth-ocean-atmospheric-sciences/earth-sciences-bs-hbs/climate-science-option/)
- Geology (http://catalog.oregonstate.edu/college-departments/earth-ocean-atmospheric-sciences/earth-sciences-bs-hbs/geology-option/)
- Ocean Science (http://catalog.oregonstate.edu/college-departments/earth-ocean-atmospheric-sciences/earth-sciences-bs-hbs/ocean-science-option/)

The Earth Sciences major program is among the nation’s premier undergraduate programs, serving students with a broad range of interests and career aspirations. The program engages in science and critical societal issues facing the region, the nation, and the international community.

The Earth Sciences major offers three options: Climate Science (https://catalog.oregonstate.edu/college-departments/earth-ocean-atmospheric-sciences/earth-sciences-bs-hbs/climate-science-option/), Geology (https://catalog.oregonstate.edu/college-departments/earth-ocean-atmospheric-sciences/earth-sciences-bs-hbs/geology-option/), and Ocean Science (https://catalog.oregonstate.edu/college-departments/earth-ocean-atmospheric-sciences/earth-sciences-bs-hbs/ocean-science-option/). The degree emphasizes hands-on learning through laboratory and field, or shipboard, experiences and undergraduate research and internships. The separate options provide preparation for careers with climate, geological or marine science emphasis and are also suited for students interested in careers in environmental science, science education, and in graduate studies.

Major Code: 834

- Learn basic concepts in Earth Sciences in preparation for advanced training in the same. Areas include how the earth, ocean, and atmosphere work and interact.
- Learn basic quantitative skills specific to the major.
- Learn applied practical skills in the discipline at a basic and advanced level through intensive experiential learning.

Code | Title | Credits
--- | ----- | -----
Baccalaureate Core
Select 36-38 credits | 36-38

Earth Sciences Major Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATS 201</td>
<td>*CLIMATE SCIENCE</td>
<td>4</td>
</tr>
<tr>
<td>CH 231</td>
<td>GENERAL CHEMISTRY</td>
<td>4</td>
</tr>
<tr>
<td>CH 261</td>
<td>LABORATORY FOR CHEMISTRY 231</td>
<td>4</td>
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<tr>
<td>CH 121</td>
<td>GENERAL CHEMISTRY</td>
<td>4</td>
</tr>
<tr>
<td>PH 211</td>
<td>*GENERAL PHYSICS WITH CALCULUS</td>
<td>4-5</td>
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<tr>
<td>or PH 201</td>
<td>*GENERAL PHYSICS</td>
<td>4</td>
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<tr>
<td>GEO 201</td>
<td>*PHYSICAL GEOLOGY</td>
<td>4</td>
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<tr>
<td>GEO 202</td>
<td>*EARTH SYSTEMS SCIENCE</td>
<td>4</td>
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<tr>
<td>MTH 251</td>
<td>*DIFFERENTIAL CALCULUS</td>
<td>4</td>
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<tr>
<td>OC 201</td>
<td>*OCEANOGRAPHY</td>
<td>4</td>
</tr>
<tr>
<td>ST 351</td>
<td>INTRODUCTION TO STATISTICAL METHODS</td>
<td>4</td>
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</table>

Select one of the following ‘skills’ courses:

- CBEE 102 | ENGINEERING PROBLEM SOLVING AND COMPUTATIONS
- ENGR 112 | INTRODUCTION TO ENGINEERING COMPUTING
- GEOG 360 | GISCIENCE I: GEOGRAPHIC INFORMATION SYSTEMS AND THEORY
- PH 265 | SCIENTIFIC COMPUTING
- ST 352 | INTRODUCTION TO STATISTICAL METHODS

Earth Sciences Options

Select one of the following:

- Climate Science
- Geology
- Ocean Science

Total credits required for graduation: 180

* Baccalaureate Core Course

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