Earth Science B.A.
Department of Earth & Environmental Sciences
University of Northern Iowa

The Earth Science B.A. major requires a minimum of 120 total hours to graduate. This total includes Liberal Arts Core requirements and the following specified major requirements, plus electives to complete the minimum of 120 hours.

This major is designed as a broad liberal arts major that can build a strong foundation for a variety of career plans. It also provides supportive background and additional career options as a second major for students in other disciplines such as mathematics, computer science, technology, anthropology, geography, biology, chemistry, physics or related areas.

<table>
<thead>
<tr>
<th>Required Courses</th>
<th>Hours</th>
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<tbody>
<tr>
<td>CHEM 1110 General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>EARTHSCI 1100 Astronomy</td>
<td>4</td>
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<tr>
<td>EARTHSCI 1200 Elements of Weather</td>
<td>3</td>
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<tr>
<td>EARTHSCI 1300 Introduction to Geology</td>
<td>4</td>
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<tr>
<td>EARTHSCI 1320 Earth History</td>
<td>4</td>
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<tr>
<td>MATH 1140 Precalculus</td>
<td>4</td>
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<td>or MATH 1420 Calculus I</td>
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<tr>
<td>PHYSICS 1511 General Physics I</td>
<td>4</td>
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<tr>
<td>or PHYSICS 1701 Physics I for Science and Engineering</td>
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Advanced Earth Science Electives (EARTHSCI 3000-4000 level courses), with 2 hours from amongst the following:

- EARTHSCI 3179 Cooperative Education
- EARTHSCI 3410 Field Studies in _________
- EARTHSCI 3430 Internship
- EARTHSCI 4400 Undergraduate Research in Earth and Environmental Science

The remaining electives must include at least one course in astronomy, one course in geology and one course in meteorology

| Total Major Hours:                             | 45    |

Note: EARTHSCI 1100 Astronomy must be taken for a total of 4 hours. It is also possible to take EARTHSCI 1100 Astronomy (3 hours) and EARTHSCI 1110 Astronomy Lab (1 hour) separately.

For details visit earth.uni.edu
Or visit the department offices in 121 Latham Hall
### Earth Science Degree Electives

#### Astronomy
- EARTHSCI 3110 Observational Astronomy (2 hr)
- EARTHSCI 3120 Planets (2 hr)
- EARTHSCI 3130 Stars (2 hr)
- EARTHSCI 3140 Galaxies and Cosmology (2 hr)
- EARTHSCI 3150 Naked-eye Astronomy (2 hr)
- EARTHSCI 4150 Astrophysics (3 hr)

#### Geology
- EARTHSCI 3310 Structural Geology (4 hr)
- EARTHSCI 3322 Earth Materials (4 hr)
- EARTHSCI 3325 Sedimentary Geology (4 hr)
- EARTHSCI 3327 Paleoclimatology (3 hr)
- EARTHSCI 3328 Fossils and Evolution (4 hr)
- EARTHSCI 3330 Geomorphology (4 hr)
- EARTHSCI 3340 Oceanography (3 hr)
- EARTHSCI 3345 Environmental Geology (3 hr)
- EARTHSCI 3350 Environmental Hydrology (3 hr)
- EARTHSCI 3355 Hydrogeology (3 hr)
- EARTHSCI 3360 Field & Laboratory Methods of Hydrology (3 hr)
- EARTHSCI 3365 Hydrology Seminar (2 hr)
- EARTHSCI 3375 Geologic Field Methods (4 hr)

#### Meteorology
- EARTHSCI 3210 Meteorology (4 hr)
- EARTHSCI 3220 Weather Analysis & Forecasting (3 hr)
- EARTHSCI 3230 Air Quality (4 hr)
- EARTHSCI 3240 Air Quality Modeling (4 hr)
- EARTHSCI 3250 Measurement & Analysis Of Air Quality (4 hr)
- EARTHSCI 3260 Measurement & Analysis Of Air Quality (4 hr)

### Professions of Recent Earth Science Graduates
- Environmental, Health & Safety Technician at Absolute Energy LLC
- Wastewater Operations Supervisor, City of Sioux City
- Chemist at CJ Bio America
- Park Ranger, Clayton County Conservation Board
- Environmental Specialist, Iowa Department of Natural Resources
- Director of Museum Programs, Fernbank Museum of Natural History
- Research Geologist, Iowa Department of Natural Resources
- Senior Environmental Specialist, Iowa Department of Natural Resources
- Executive Director Iowa Rivers Revival
- Quality Engineer at John Deere
- Laboratory Technician at Louis Dreyfus Energy Company
- Geologist for National Park Service
- Geographer for National Geospatial Intelligence Agency
- Senior Environmental Specialist, at Mortonson Construction
- Assistant Director of Adventure Programs
- Iowa Waste Reduction Center Program Manager, UNI
- Project Manager at TestAmerica
- Engineering Technician at Terracon
- Director of County Emergency Management Agency
- Education and Public Outreach Team at Lunar and Planetary Institute
- Chief of Natural History Interpretation, Jewel Cave National Monument
- Environmental Engineer, Iowa Department of Natural Resources