Environmental Resource Management B. A.
Departments of Biology, Earth & Environmental Sciences, Geography, and Health, Recreation & Community Services
University of Northern Iowa

The Environmental Resource Management (ERM) 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. The ERM degree includes 31 hours of required courses and four tracks with between 30-32 hours required in each track
- Ecosystems – minimum of 32 hours, advising in Biology Dept.
- Environmental Compliance – minimum of 32 hours, advising in Earth & Environmental Sciences Dept.
- Geosystems – minimum of 30 hours, advising in Geography Dept.
- Resource Administration – minimum of 30 hours, advising in Health, Recreation & Community Services Department

### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2051</td>
<td>General Biology: Organismal Diversity</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3100</td>
<td>Evolution, Ecology &amp; Nature of Science</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1110</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>EARTHSCI 1300</td>
<td>Introduction to Geology</td>
<td>4</td>
</tr>
<tr>
<td>or</td>
<td>GEOG 1210 &amp; GEOG 1211  Physical Geography and Physical Geography Laboratory</td>
<td></td>
</tr>
<tr>
<td>EARTHSCI 3300</td>
<td>Geomorphology</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 3310</td>
<td>Geographic Information System I</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 4260</td>
<td>Environmental Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>LYHS 4320</td>
<td>Financial Resource Management in LYHS</td>
<td>3</td>
</tr>
<tr>
<td>HISUS 4170</td>
<td>U.S. Environmental History</td>
<td>3</td>
</tr>
<tr>
<td>Electives selected for tracks</td>
<td>30-32</td>
<td></td>
</tr>
</tbody>
</table>

**Total hours of Major in Environmental Resource Management B.A.** 61-63

Further information is available at each department:
- Biology – McCollum Science Hall (MSH) 144
- Earth & Environmental Sciences – Latham Hall (LAT) 121
- Geography – Innovative Teaching and Technology Center (ITTC) 215
- Health, Recreation & Community Services – Wellness and Recreation Center (WRC) 203
## Tracks for Environmental Resource Management Degree

### Ecosystems Track - 32 hours (code: 97L)

**Required – 12 hr**
- BIOL 4168 Ecology (4 hr)
- CHEM 1120 General Chemistry II (4 hr)
- MATH 1140 Precalculus (4 hr)

**Electives – minimum of 20 hr total from A, B, C**

**Category A – Content Management, select at least 1 course**
- BIOL 4105 Wildlife Ecology & Management (4 hr)
- BIOL 4108 Biodiversity Conservation Policy (3 hr)
- BIOL 4167 Conservation Biology (3 hr)
- BIOL 4180 Restoration Ecology (4 hr)

**Category B – Content Related Courses, select at least 1 course**
- BIOL 3112 Invertebrate Zoology (4 hr)
- BIOL 3118 Marine Biology (3 hr)
- BIOL 3170 Entomology (3 hr)
- BIOL 4154 Aquatic Ecology (3 hr)
- BIOL 4157 Biostatistics (3 hr)
- BIOL 4164 Mammalogy (4 hr)
- BIOL 4166 Plant Systematics (4 hr)
- GEOG 4310 GIS Applications (Variable Topic) (3 hr)
- GEOG 4320 Geographic Information Systems II (3 hr)

**Category C – Cognates, select at least 1 course**
- EARTHSCI 1200 Elements of Weather (3 hr)
- ENGLISH 4785 Applied Writing: Projects, Grants & Careers (3 hr)
- GEOG 2210 Modern Climate Change: Evidence & Predictions (3 hr)
- GEOG 3210 Natural Hazards & Disasters (3 hr)
- GEOG 3220 Environmental Geography (3 hr)
- GEOG 4220 Soils & Landscapes (3 hr)
- GEOG 4240 The Ice Age (3 hr)
- GEOG 4250 Laboratory Methods in Environmental Geography (3 hr)
- GEOG 4270 Regional Landforms of North America (3 hr)
- GEOG 4370 Remote Sensing of the Environment (3 hr)
- LYHS/HISUS 4556 History of Outdoor Recreation (3 hr)
- LYHS 2120 Foundations of Tourism (3 hr)
- LYHS 4553 Trends & Issues in Outdoor Recreation (3 hr)
- MGMT 3185 Project Management (3 hr)
- BIOL 3179 or EARTHSCI 3430 or GEOG 3179 or LYHS 4510 or HPE 4768 Coop Ed/Internship/Field Exp

### Environmental Compliance Track – 32 hours (code: 97P)

**Required – 15 hr**
- ECON 1041 Principles of Macroeconomics (3 hr)
- ECON 1051 Principles of Microeconomics (3 hr)
- ECON 3225 Environmental Economics (3 hr)
- HPE 4666 Environmental & Occupational Health Regulations (3 hr)
- PHIL 2550 Environmental Ethics (3 hr)

**Electives**

**Primary Focus – Content Related, minimum of 10 hrs**
- EARTHSCI 1200 Elements of Weather (3 hr)
- EARTHSCI 1400 Introduction to Environmental Earth Science (3 hr)
- EARTHSCI 3230 Air Quality (4 hr)
- EARTHSCI 3345 Environmental Geology (3 hr)
- or GEOG 3220 Environmental Geography (3 hr)
- EARTHSCI 3350 Environmental Hydrology (3 hr)

**Secondary Focus – Cognates, minimum of 7 hrs**
- EARTHSCI 3240 Air Quality Modeling (4 hr)
- EARTHSCI 3250 Measurement & Analysis of Air Quality (4 hr)
- EARTHSCI 3325 Sedimentary Geology (4 hr)
- EARTHSCI 3355 Hydrogeology (3 hr)
- GEOG 4220 Soils & Landscapes (3 hr)
- GEOG 4230 Rivers (3 hr)
- GEOG 4370 Remote Sensing of the Environment (3 hr)
- HPE 4665 Environmental Health Science (3 hr)
- LYHS 4554 Managing Recreation Impacts on the Natural Environment (3 hr)
- MGMT 3153 Organizational Management (3 hr)
- MGMT 3185 Project Management (3 hr)
- POL AMER 1048 Introduction to Public Administration (3 hr)
- BIOL 3179 or EARTHSCI 3430 or GEOG 3179 or LYHS 4510 or HPE 4768 Coop Ed/Internship/Field Exp
The Environmental Resource Management (ERM) 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. The ERM degree includes 31 hours of required courses and four tracks with between 30-32 hours required in each track:

- **Ecosystems** – minimum of 32 hours, advising in Biology Dept.
- **Environmental Compliance** – minimum of 32 hours, advising in Earth & Environmental Sciences Dept.
- **Geosystems** – minimum of 30 hours, advising in Geography Dept.
- **Resource Administration** – minimum of 30 hours, advising in Health, Recreation & Community Services Department

### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 2051</td>
<td>General Biology: Organismal Diversity</td>
<td>4</td>
</tr>
<tr>
<td>BIOL 3100</td>
<td>Evolution, Ecology &amp; Nature of Science</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1110</td>
<td>General Chemistry I</td>
<td>4</td>
</tr>
<tr>
<td>EARTHSCI 1300</td>
<td>Introduction to Geology</td>
<td>4</td>
</tr>
<tr>
<td>or GEOG 1210 &amp; GEOG 1211</td>
<td>Physical Geography and Physical Geography Laboratory</td>
<td>4</td>
</tr>
<tr>
<td>EARTHSCI 3300</td>
<td>Geomorphology</td>
<td>4</td>
</tr>
<tr>
<td>GEOG 3310</td>
<td>Geographic Information System I</td>
<td>3</td>
</tr>
<tr>
<td>GEOG 4260</td>
<td>Environmental Resource Management</td>
<td>3</td>
</tr>
<tr>
<td>LYHS 4320</td>
<td>Financial Resource Management in LYHS</td>
<td>3</td>
</tr>
<tr>
<td>HISUS 4170</td>
<td>U.S. Environmental History</td>
<td>3</td>
</tr>
<tr>
<td>Electives selected for tracks</td>
<td>30-32</td>
<td></td>
</tr>
<tr>
<td><strong>Total hours of Major in Environmental Resource Management B.A.</strong></td>
<td><strong>61-63</strong></td>
<td></td>
</tr>
</tbody>
</table>

Further information is available at each department:

- Biology – McCollum Science Hall (MSH) 144
- Earth & Environmental Sciences – Latham Hall (LAT) 121
- Geography – Innovative Teaching and Technology Center (ITTC) 215
- Health, Recreation & Community Services – Wellness and Recreation Center (WRC) 203
## Tracks for Environmental Resource Management Degree

### Resource Administration Track - 30 Hours  
(code: 97N)

**Electives**  
*Primary Focus – Content Related Courses – minimum of 21 hrs*
- GEOG 2210 Modern Climate Change: Evidence & Predictions (3 hr)
- GEOG 3210 Natural Hazards & Disasters (3 hr)
- GEOG 4170 Regional Analysis & Planning (3 hr)
- HPE 4666 Environmental & Occupational Health Regulations (3 hr)
- LYHS 2130 Foundations of the Nonprofit Sector (3 hr)
- LYHS 3337 Human Resources Development for Leisure, Youth & Human Services (3 hr)
- LYHS 4310 Areas & Facilities for Leisure, Youth & Human Services (3 hr)
- LYHS 4554 Managing Recreation Impacts on the Natural Environment (3 hr)
- LYHS/HISUS 4556 History of Outdoor Recreation (3 hr)
- LYHS 4776 Eco, Adventure & Sports Tourism (3 hr)

**Secondary Focus – Management Cognates minimum of 9 hrs**
- BIOL 4167 Conservation Biology (3 hr)
- GEOG 4220 Soils & Landscapes (3 hr)
- GEOG 4230 Rivers (3 hr)
- GEOG 4250 Laboratory Methods in Environmental Geography (3 hr)
- GEOG 4270 Regional Landforms of North America (3 hr)
- GEOG 4320 Geographic Information Systems II (3 hr)
- GEOG 4370 Remote Sensing of the Environment (3 hr)
- ENGLISH 4775 Applied Writing Specialized Documents (3 hr)  
  or ENGLISH 4785 Applied Writing: Projects, Grants & Careers (3 hr)
- HPE 4665 Environmental Health Science (3 hr)
- LYHS 2120 Foundations of Tourism (3 hr)
- LYHS 4552 Theory & Practice of Outdoor Education (3 hr)
- LYHS 4553 Trends & Issues in Outdoor Recreation (3 hr)
- LYHS 4779 Community Planning Workshop (3 hr)
- MGMT 3185 Project Management (3 hr)
- POL AMER 3172 Public Budgeting (3 hr)
- BIOL 3179 or EARTHSCI 3430 or GEOG 3179 or LYHS 4510 or HPE 4768 Coop Ed/Internship/Field Exp

### Geosystems Track – 30 Hours  
(code: 97M)

**Electives**  
*Primary Focus – Content Related Courses – minimum of 21 hrs*
- EARTHSCI 1200 Elements of Weather (3 hr)
- EARTHSCI 3322 Earth Materials (4 hr)
- EARTHSCI 3350 Environmental Hydrology (3 hr)
- EARTHSCI 3345 Environmental Geology (3 hr)  
  or GEOG 3220 Environmental Geography (3 hr)
- GEOG 2210 Modern Climate Change: Evidence & Predictions (3 hr)
- GEOG 3210 Natural Hazards & Disasters (3 hr)
- GEOG 4220 Soils & Landscapes (3 hr)
- GEOG 4230 Rivers (3 hr)
- GEOG 4250 Laboratory Methods in Environmental Geography (3 hr)
- GEOG 4370 Remote Sensing of the Environment (3 hr)
- LYHS 2130 Foundations of the Nonprofit Sector (3 hr)
- LYHS 4553 Trends & Issues in Outdoor Recreation (3 hr)
- LYHS 4554 Managing Recreation Impacts on the Natural Environment (3 hr)

**Secondary Focus – Management Cognates, minimum of 9 hrs**
- BIOL 4105 Wildlife Ecology & Management (4 hr)
- BIOL 4180 Restoration Ecology (4 hr)
- EARTHSCI 3325 Sedimentary Geology (4 hr)
- EARTHSCI 3360 Field & Laboratory Methods in Hydrology (3 hr)
- ECON 3225 Environmental Economics (3 hr)
- ENGLISH 4785 Applied Writing: Projects, Grants & Careers (3 hr)
- GEOG 4170 Regional Analysis & Planning (3 hr)
- GEOG 4240 The Ice Age (3 hr)
- GEOG 4270 Regional Landforms of North America (3 hr)
- GEOG 4310 GIS Applications (Variable Topic) (3 hr)
- GEOG 4320 Geographic Information Systems II (3 hr)
- LYHS 2120 Foundations of Tourism (3 hr)
- LYHS/HISUS 4556 History of Outdoor Recreation (3 hr)
- LYHS 4776 Eco, Adventure & Sports Tourism (3 hr)
- MGMT 3185 Project Management (3 hr)
- POL AMER 3172 Public Budgeting (3 hr)
- BIOL 3179 or EARTHSCI 3430 or GEOG 3179 or LYHS 4510 or HPE 4768 Coop Ed/Internship/Field Exp