ENVIRONMENTAL ENGINEERING MINOR

Description
This minor is for engineering majors ONLY.

The environmental engineering minor provides students an opportunity to demonstrate a concentration of courses in environmental engineering. Environmental engineering is a branch of civil engineering focused on the application of engineering principles for protection of human health from adverse environmental factors, protection of the environment, and improvement of environmental quality. Environmental engineering encompasses topics including wastewater treatment, water treatment, air pollution control, ground and surface water resources, environmental chemistry, environmental biotechnology, and solid and hazardous waste management.

College Requirements

College Entrance Requirements

College Admission

Students must have high school credit for (one unit is equal to one high school year):

1. Mathematics – 4 units: 2 of algebra, 1 of geometry, and 1 of precalculus and trigonometry
2. English – 4 units
3. Natural sciences – 3 units that must include 1 unit of physics and 1 unit of chemistry (chemistry requirement waived for students in construction management)
4. Foreign language – 2 units of a single foreign language
5. Social studies – 3 units
6. Students having a composite ACT score of 28 or greater (or equivalent SAT score) will be admitted to the College of Engineering even if they lack any one of the following: trigonometry, chemistry, or physics.
7. Students having an ACT score of 19 or less in English (or equivalent SAT score) must take ENGL 150 Writing and Inquiry or ENGL 151 Writing and Argument.

A total of 16 units is required for admission.

Students must have an ACT (enhanced) score of 24 or greater (or equivalent SAT). Students who lack entrance requirements may be admitted based on ACT scores, high school rank and credits, or may be admitted to pre-engineering status in the Exploratory and Pre-Professional Advising Center. Pre-engineering students are advised within the Exploratory and Pre-Professional Advising Center.

Students for whom English is not their language of nurture must meet the minimum English proficiency requirements of the University.

Students who lack entrance units may complete precollege training by Independent Study through the University of Nebraska–Lincoln Office of On-line and Distance Education, in summer courses, or as a part of their first or second semester course loads while in the Exploratory and Pre-Professional Advising Center or other Colleges at Nebraska.

College Degree Requirements

Grade Rules

Grade Appeals

In the event of a dispute involving any college policies or grades, the student should appeal to his/her instructor and appropriate department chair or school director (in that order). If a satisfactory solution is not achieved, the student may appeal his/her case through the College Academic Appeals Committee on his/her campus.

Catalog Rule

Students must fulfill the requirements stated in the catalog for the academic year in which they are first admitted at the University of Nebraska–Lincoln. In consultation with advisors, a student may choose to follow a subsequent catalog for any academic year in which they are admitted to and enrolled as a degree-seeking student at Nebraska in the College of Engineering. Students must complete all degree requirements from a single catalog year. The catalog which a student follows for graduation.

Requirements for Minor Offered by Department

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
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</thead>
<tbody>
<tr>
<td>CIVE 326 / BSEN 326</td>
<td>Introduction to Environmental Engineering</td>
<td>3</td>
</tr>
<tr>
<td>CIVE 352</td>
<td>Introduction to Water Resources Engineering</td>
<td>3</td>
</tr>
<tr>
<td>or BSEN 350</td>
<td>Soil and Water Resources Engineering</td>
<td></td>
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### Environmental Engineering Minor

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIVE 425 / BSEN 425</td>
<td>Process Design in Water Supply and Wastewater Treatment</td>
<td>3</td>
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</tbody>
</table>

**Electives I**

Select one or two of the following: 3-6

- CIVE 419 Flow Systems Design
- CIVE 424 Solid Waste Management Engineering
- CHME 489 Air Pollution, Assessment and Control

**Electives II**

Select one or two of the following: 3-6

- CIVE 421 Hazardous Waste Management and Treatment
- CIVE 422 Pollution Prevention: Principles and Practices
- CIVE 426 Design of Water Treatment Facilities
- CIVE 427 Design of Wastewater Treatment and Disposal Facilities
- CIVE 430 Fundamentals of Water Quality Modeling
- CIVE 431 Small Treatment Systems
- CIVE 452 Water Resources Development
- CIVE 454 Hydraulic Engineering
- CIVE 455 / BSEN 455 Nonpoint Source Pollution Control Engineering
- CIVE 458 / BSEN 458 Groundwater Engineering
- CHME 323 Chemical Engineering Thermodynamics and Kinetics
- BSEN 244 Thermodynamics of Living Systems
- BSEN 441 Animal Waste Management
- BSEN 468 Wetlands

**Credit Hours Subtotal:** 18

**Total Credit Hours:** 18

### Grade Rules

**C- and D Grades**

All courses must be completed with a grade of D- or higher.

**Pass/No Pass Limits**

No course taken Pass/No Pass will be counted toward the minor.