

The Ohio State University
College of Engineering
Department of Civil, Environmental and Geodetic Engineering
Environmental Engineering Minor (ENVENG-MN)

Department of Civil, Environmental and Geodetic Engineering
470 Hitchcock Hall, 2070 Neil Ave.
614-292-2771; ceg.osu.edu
CEG Undergraduate Advising: 495 Hitchcock Hall

The Environmental Engineering minor will provide a wide range of undergraduate majors with an introductory background in sustainability, pollution prevention, environmental modeling, and pollution control technologies. By completing the minor in Environmental Engineering, students should add considerably to their major program skills and become more valuable to their future employer. Science majors will gain an understanding of engineering problem-solving methods and procedures, as well as standard pollution control technologies. Other engineering majors will become more aware of the environmental effects of technologies in their major field, and how to reduce these effects.

Prerequisites (2-3 courses; 9-15 CH)

Must be completed prior to beginning the minor program:

1. MATH 1151 (5)
2. CHEM 1210 (5) **AND** 1220 (5)

OR

CHEM 1250 (4)

Required Courses (3 courses; 9 CH)

1. CIVILEN 3130 Fluid Mechanics (3 CH)
2. ENVENG 3200 Fundamentals of Environmental Engineering* (3 CH)
3. ENVENG 5170 Sustainability and the Circular Economy (3 CH)

*Civil Engineering students who use CIVILEN 3130 and ENVENG 3200 as a part of their major coursework must take an additional 3 hours of elective credit from the list below. Engineering majors may overlap six credit hours from the minor with the elective portion of their engineering degree program.

Elective Coursework (2-3 courses; 6 CH)

Select 6 hours of coursework from the approved elective list below.
PLEASE NOTE: Many of the courses below have additional prerequisites, some of which may be flexible. Students should work with an academic advisor in the Department of Civil, Environmental, and Geodetic Engineering to choose coursework that best suits their individual preparation and skills.

CBE 5772 Principles of Sustainable Engineering (3)
CIVILEN 3160 Water resources Engineering (3)
CIVILEN 4210 Physics of Sustainable Buildings (3)
CIVILEN 5220 – Open Channel Hydraulics (3)
CIVILEN 5230 – Transport Phenomenon in Water Resource Engineering (3)
CIVILEN 5610.01 – Sustainable WaSH Infrastructure for Developing Rural Communities (3)
CIVILEN 5610.02 – Safe Water On Tap (3)
EARTHSC 5651 – Hydrogeology (4)
ENR 3000 – Soil Science (3)
ENR 3001 – Soil Science Laboratory (1)
ENVENG 2100 – Environmental Engineering Analytical Methods (3)
ENVENG 3210 – Environmental Engineering Unit Operations (3)
ENVENG 4218 – Measurement and Modeling of Climate Change (3)
ENVENG 4400 - Integrated Environmental Chemical Fate and Transport (3)
ENVENG 5110 – Environmental Engineering Bioprocesses (3)
ENVENG 5120 – Bioremediation in Groundwater and Soil (3)
ENVENG 5140 – Air Quality Engineering (3)
ENVENG 5195 – Engineering Design for Public Health (3)

ENVENG 5600 – Science, Technology, and Public Policy (3)
ENVENG 5718 – Aquatic Chemistry (3)
ENVENG 5760 – Design of Urban Stormwater Control Measures (3)
FABENG 5310 – Ecological Engineering and Science (4)
FABENG 5520 – Phytotechnology and Phytoremediation (3)
MICROBIO 4000.xx – Basic and Practical Microbiology (4)

Environmental Engineering minor program guidelines

Credit hours required A minimum of 15 credit hrs. 1000 level courses shall not be counted in the minor. At least 6 cr hrs need to be upper-division courses (3000 level or above) as defined by the College of Engineering.

Transfer and EM Credit A student is permitted to count up to 6 total hours of transfer credit and/or credit by examination toward the minor.

Overlap with the GE A student is permitted to overlap up to 6 cr hrs between the GE and the minor

Overlap with the Major and Additional Minor(s)

- The minor must be in a different subject than the major.
- The minor must contain a minimum of 12 hours distinct from the major and/or additional minors.

Grades Required

- Minimum C- for a course to be listed on the minor.
- Minimum 2.00 cumulative GPA for all minor course work.
- Course work graded Pass/Non-Pass cannot count on the minor.
- No more than 3 cr hrs of course work graded Satisfactory/Unsatisfactory may count towards the minor.

X193 Credits No more than 3 cr hrs

Declaring the minor

In order to declare the minor, students must meet with Academic Advising Manager Barry Tolchin prior to the filing of the graduation application. Please use OnCourse (<https://advising.osu.edu/oncourse>) to make an appointment.

Approval of Coursework

Initial approval of the minor coursework:

Students who complete the minor following the guidelines on this sheet need only verify with their academic advisor that the minor appears complete on the Degree Audit Report. No approval from the Department of Civil, Environmental and Geodetic Engineering is required.

Approval for courses not listed on this form to apply to the minor program:

Students must obtain the approval of the Department of Civil, Environmental and Geodetic Engineering to apply courses not listed on this form toward the Environmental Engineering minor. Please email Barry Tolchin (tolchin.5@osu.edu) to request approval.

College of Arts and Sciences Curriculum and Assessment Services
306 Dulles Hall, 230 Annie & John Glenn Ave..
<http://artsandsciences.osu.edu>

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