

ENVIRONMENTAL ENGINEERING MINOR

College of Engineering

Program Website (<https://cals.cornell.edu/environmental-engineering/>)

Program Description

This minor is not admitting new students, as of 2025-2026, and will be discontinued.

Offered jointly by the Department of Biological and Environmental Engineering and the School of Civil and Environmental Engineering

Eligibility

All undergraduates except Environmental Engineering Majors.

For Civil Engineering majors, at least four of the six courses may not be used to fulfill both minor requirements and major-approved elective or design course requirements.

For Biological Engineering majors, at least 12 of the 15 credits used toward the focus area electives in the Biological Engineering major cannot also be used towards the Environmental Engineering minor.

Academic Standards

- At least C– in each course in the minor. GPA $\geq$ 2.0 for all courses in the minor.

Minor Requirements

At least six courses ($\geq$ 18 credits), chosen as follows. Note: courses shown in brackets [] not offered in current year.

Students must select courses from the following group listings, with at least one (1) course from three of the four groups below.

Group A. Sustainable Energy

Code	Title	Hours
CEE 4880	Applied Modeling and Simulation for Renewable Energy Systems (Spring)	3
CEE 5420	Energy Technologies and Subsurface Resources (Spring)	3
CEE 5200	Economics of the Energy Transition (Fall)	3
MAE 5010	Future Energy Systems (Spring)	3
CHEME 6660	Analysis of Sustainable Energy Systems (Fall)	2
CHEME 6661	Bioenergy and Biofuels Module (Spring)	1
CHEME 6670	Fossil Fuels Module (Spring)	1
CEE 4210	Renewable Energy Systems (Fall)	3
MAE 4020	Wind Power (Fall)	3
ENGRI 1165	Climate Change and You, the Engineer (crosslisted) (fall) (may only count if taken before the junior year; only one ENGRI course may count toward the minor)	3

Group B. Environmental Processes

Code	Title	Hours
BEE 4590	Physical Design in Biological Engineering (Fall)	3
BEE 4800	Atmospheric Chemistry: From Air Pollution to Global Change (Fall)	3
CEE 4510	Microbiology for Environmental Engineering (Fall)	3
CEE 4530	Laboratory Research in Environmental Engineering (Spring)	3
CEE 4535	Water Chemistry for Environmental Engineering (Fall)	3
CEE 4555	(Fall)	3
CEE 4570	Environmental Biological Processes (Spring)	3
CEE 6585	(Spring)	
CEE 6590	Partitioning and Transformation of Organic Contaminants in Environmental Systems (Spring)	3
EAS 4570	Atmospheric Air Pollution (Fall; Offered alternate years)	3
CEE 4565	Waste Water Processes and Resources Recovery (Fall)	3
ENGRI 1130	Sustainable Engineering of Energy, Water, Soil, and Air Resources (crosslisted) (may only count if taken before the junior year; only one ENGRI course may count toward the minor)	3

Group C. Hydrology and Environmental Fluid Mechanics

Code	Title	Hours
BEE 3710	Physical Hydrology for Ecosystems (Spring)	3
BEE 4270	Water Measurement and Analysis Methods (Fall)	3
BEE 4710	Introduction to Groundwater (Spring)	3
BEE 6740	Ecohydrology (Spring)	3
CEE 3410	Introduction to Geotechnical Engineering (Fall)	4
CEE 4330	Physical Hydrology in the Built and Natural Environments (Spring)	3
CEE 4370	Experimental Methods in Fluid Dynamics (Spring)	4
CEE 6370	Experimental Methods in Fluid Dynamics (Spring)	4
CEE 6550	Transport, Mixing, and Transformation in the Environment (Spring)	3
CEE 4350	Coastal Engineering (Spring)	3
BEE 4730	Watershed Engineering (Fall)	4

Group D. Sustainable Systems and Environmental Analytics

Code	Title	Hours
BEE 3299	Sustainable Development (Spring)	3
BEE 4310	Environmental Statistics and Learning (Fall)	4
CEE 4200	Managing Water Resources in a Changing World (Fall)	3
CEE 4930	Data Analytics (Fall)	4
CEE 5970	Risk Analysis and Management (Spring)	3
CEE 5980	Decision Framing and Analytics (Spring)	3
PLSCI 4200	Geographic Information Systems (GIS): Concepts and Application (Spring)	3
CEE 4665	Modeling and Optimization for Smart Infrastructure Systems (Fall)	3

CEE 4795	Sensors for the Built and Natural Environments (Spring)	3
CEE 4800	Engineering Smart Cities (Fall)	3
BEE 4510	Sustainable Water Resources System Design (Spring)	3
CEE 4640	Sustainable Transportation Systems Design (Fall)	3

Graduation Requirements for Engineering Minor Degree Programs

Requirements

Students may pursue minors in any department in any college that offers them, subject to limitations placed by the department offering the minor or by the students' major. Completed minors will appear on the student's transcript. Not all departments offer minors. Additional information on specific minors can be found above, in the *Engineering Undergraduate Handbook*, in the undergraduate major office of the department or school offering the minor, and in Engineering Advising.

An engineering minor recognizes formal study of a particular subject area in engineering normally outside the major. Students undertaking a minor are expected to complete the requirements during the time of their continuous undergraduate enrollment at Cornell. Completing the requirements for an engineering minor (along with a major) may require more than the traditional eight semesters at Cornell. However, courses that fulfill minor requirements may also satisfy other degree requirements (e.g., distribution courses, advisor-approved, or major-approved electives), and completion within eight semesters is possible.

An engineering minor requires:

- successful completion of all requirements for an undergraduate degree.
- enrollment in a major that approves participation in the minor.
- satisfactory completion of six courses (at least 18 credits) in a college-approved minor.

Students may apply for certification of a minor at any time after the required course work has been completed in accordance with published standards. An official notation of certification of a minor appears on the Cornell transcript following graduation.