

MINOR IN ENVIRONMENTAL ENGINEERING

The Department of Civil and Environmental Engineering offers a minor in Environmental Engineering to allow engineering undergraduate students to benefit from CSU's abundance of environmental expertise. The minor is designed to broaden the academic background of undergraduate engineering students seeking a career in environmental fields, and to provide fundamentals required to pursue a graduate degree in environmental engineering or related fields.

Learning Objectives

Upon successful completion, students will be able to:

1. Identify current environmental issues in various mediums (water, air, soil, etc.).
2. Apply science and engineering principles to address environmental problems. Design appropriate units for water supply, water and wastewater treatment, solid waste management, air pollution, and noise pollution control using traditional and innovative methods.
3. Converse with their peers in the Environmental Engineering field using technical language and terminology.

Requirements Effective Spring 2024

Students must satisfactorily complete the total credits required for the minor. Minors and interdisciplinary minors require 12 or more upper-division (300- to 400-level) credits.

Additional coursework may be required due to prerequisites.

Code	Title	Credits
Required Courses		
Select 9 credits from the following:		9
CIVE 330	Ecological Engineering	
CIVE 438	Fundamentals of Environmental Engr ¹	
CIVE 440	Nonpoint Source Pollution	
CIVE 442	Air Quality Engineering	
Elective Courses		
Select 12 credits from the following, of which at least 3 credits must be upper-division:		12
ATS 350	Introduction to Weather and Climate	
ATS 351	Introduction to Weather and Climate Lab	
BC 351	Principles of Biochemistry	
BZ 471	Stream Biology and Ecology	
BZ 472	Stream Biology and Ecology Laboratory	
CHEM 245	Fundamentals of Organic Chemistry	
CHEM 246	Fundamentals of Organic Chemistry Laboratory	
CHEM 341	Modern Organic Chemistry I	
CHEM 345	Organic Chemistry I	
CIVE 330	Ecological Engineering ²	
CIVE 423	Groundwater Engineering	
CIVE 437	Wastewater Treatment Facility Design	
CIVE 440	Nonpoint Source Pollution ²	

CIVE 442	Air Quality Engineering ²
CIVE 458	Environmental Geotechnics
CIVE 529	Environmental Organic Chemistry
CIVE 530	Environ Engr at the Water-Energy-Health Nexus
CIVE 538	Aqueous Chemistry
CIVE 540/CBE 540	Advanced Biological Wastewater Processing
CIVE 541	Physical Chemical Water Treatment Processes
CIVE 547/STAT 547	Statistics for Environmental Monitoring
ERHS 446	Environmental Toxicology
LIFE 102	Attributes of Living Systems (GT-SC1)
LIFE 320	Ecology
MECH 463	Building Energy Systems
MIP 300	General Microbiology
MIP 432/ESS 432	Microbial Ecology
PHIL 345	Environmental Ethics

Program Total Credits: 21

¹ Students in the Civil Engineering major cannot use CIVE 438 for credit in the minor.

² May be allowed if not taken as a required course.