

ENVIRONMENTAL ENGINEERING, MINOR

Requirements for a minor may be completed at any campus location offering the specified courses for the minor. Students may not change from a campus that offers their major to a campus that does not offer their major for the purpose of completing a minor.

Program Requirements

Requirement	Credits
Requirements for the Minor	18

The minor consists of 18 credits, at least 6 of which must be at the 400 level.

Requirements for the Minor

2 credits of engineering design are included.

A grade of C or better is required for all courses in the minor, as specified by Senate Policy 59-10 (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/59-00-minors-and-certificates/#59-10>). In addition, at least six credits of the minor must be unique from the prescribed courses required by a student's major(s).

Code	Title	Credits
Prescribed Courses		
<i>Prescribed Courses: Require a grade of C or better</i>		
CE 370	Introduction to Environmental Engineering	3
Additional Courses		
<i>Additional Courses: Require a grade of C or better</i>		
<i>Chemistry and Biological Sciences</i>		
Select one of the following:		3
BE 308	Engineering Elements of Biochemistry and Microbiology	
CE 479	Environmental Microbiology for Engineers	
CHEM 202	Fundamentals of Organic Chemistry I	
CHEM 210	Organic Chemistry I	
<i>Process Engineering</i>		
Select 0-3 credits of the following:		0-3
BE 302	Heat and Mass Transfer in Biological Systems	
CHE 210	Introduction to Material Balances	
EGEE 302	Principles of Energy Engineering	
MNPR 301	Elements of Mineral Processing	
NUCE 430	Design Principles of Reactor Systems	
<i>Applied Fluid Mechanics</i>		
Select one of the following:		3
AERSP 308	Mechanics of Fluids	
BE 467	Design of Stormwater and Erosion Control Facilities	
CE 371	Water and Wastewater Treatment	
CE 462	Open Channel Hydraulics	
CHE 330	Process Fluid Mechanics	
EME 303	Fluid Mechanics in Energy and Mineral Engineering	
ME 320	Fluid Flow	

METEO 454	Introduction to Micrometeorology
NUCE 431W	Nuclear Reactor Core Design Synthesis
<i>Environmental Sciences and Design</i>	
Select 6-9 credits of the following:	
6-9	
BE 468	Microbiological Engineering
BE 477	Land-Based Waste Disposal
CE 472W	Environmental Engineering Capstone Design
CE 475	Water Quality Chemistry
CE 476	Solid and Hazardous Wastes
CHEM 402	Environment Chemistry: Atmosphere
EGEE/ME 430	Introduction to Combustion
EGEE 470	Air Pollutants from Combustion Sources
ENVSE 408	Contaminant Hydrology
ENVSE 427	Pollution Control in the Process Industries
ERM 411	Legal Aspects of Resource Management
ERM 412	Resource Systems Analysis
ERM 413W	Case Studies in Ecosystem Management
ERM 447	Stream Restoration
ERM 450	Wetland Science and Sustainability
FSC 431	The Chemistry of Fuels
GEOSC 452	Hydrogeology
ME 405	Indoor Air Quality Engineering
ME 433	Fundamentals of Air Pollution
NUCE 405	Nuclear and Radiochemistry
NUCE 420	Radiological Safety
NUCE 428	Radioactive Waste Control
SOILS 420	Remediation of Contaminated Soils