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		
Prescribed Courses: Require a grade of C or better		
CE 370	Introduction to Environmental Engineering	3
Additional Courses		
Additional Courses: Require a grade of C or better		
Chemistry and Biological Sciences		
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	
Process Engineering		
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	
Applied Fluid Mechanics		
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	
Environmental Sciences and Design		
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	