

Environmental Engineering Minor

For information, contact the Department of Chemical, Paper and Biomedical Engineering, 64 Engineering Building, 513-529-0760.

The Environmental Engineering minor provides an understanding of basic chemical and environmental engineering principles, concepts, and methodologies and how they are applied to the design and performance of unit operations and processes for energy generation and pollution treatment and control. Students studying the Environmental Engineering minor will apply the concepts of chemistry, biochemistry, physics and mathematics to solve problems related to energy and the environment. For example, students will gain an understanding of the fate and transport of pollutants in the environment; they will identify and understand the design concepts in unit operations involved in drinking water and wastewater treatment processes; they will understand how to apply mass and energy balances to assess opportunities for pollution prevention in industrial processes; and they will gain the perspective of sustainability from three viewpoints: economic, environmental, and social. In addition, students will become familiar with many of the U.S. Environmental laws and regulations as well as global environmental issues, including greenhouse gases and climate change, ozone depletion, acid rain, and urban haze, among others.

Program Requirements

(21 semester hours)

Code	Title	Credit Hours
Students are responsible for meeting the prerequisites of all courses in the minor.		
Required courses:		
CPB 314 or MME 314	Engineering Thermodynamics	3
CPB 219 or MME 211	Statics and Mechanics of Materials Static Modeling of Mechanical Systems	3
CPB 311	Transport Phenomena Laboratory	2
CPB 318 or CPB 418 or CPB 313 or MME 313	Transport Phenomena I Biological Transport Phenomena Fluid Mechanics Fluid Mechanics	4
Select three of the following:		9
CPB 244	Introduction to Environmental Engineering	
ECE 291	Energy Systems and Sustainability	
CPB 405	Industrial Environmental Control	
CPB 441	Pollution Prevention in Environmental Management	
CPB 442	Air Pollution Control	
MME 451	Sustainability Considerations in Design and Development	
Total Credit Hours		21