Civil Engineering, Minor

The minor in civil engineering opens opportunities for students across the university who are interested in gaining knowledge in urban engineering through the core disciplines within the Department of Civil and Environmental Engineering.

A total of 15 semester hours are required to complete this minor. Students interested in this minor must contact the civil and environmental engineering academic advisor in order to declare the minor. This minor is not open to civil engineering or environmental engineering majors.

Students may double count no more than two courses with any major degree requirement, other than general electives.

Minor Requirements

Complete four courses, minimum 15 semester hours, from the lists below. Also complete any corequisite labs and recitations courses where specified.

Required Courses

Code	Title	Hours
Complete 15-16 semester hours from the list below:		15-16
CIVE 2221	Statics and Solid Mechanics	
CIVE 2260 and CIVE 2261	Materials for the Built Environment and Lab for CIVE 2260	
CIVE 2320	Structural Analysis	
CIVE 2324	Concrete Structure Design	
CIVE 2331	Fluid Mechanics and Hydraulics	
CIVE 2340 and CIVE 2341	Geotechnical Engineering and Lab for CIVE 2340	
CIVE 3425	Steel Structure Design	
CIVE 4542	Foundation Engineering and Design	
CIVE 4554	Highway Design	
CIVE 4566	Design for Sustainable Transportation: Netherlands	
CIVE 4575	Construction Management	
CIVE 4777	Climate Hazards and Resilient Cities Abroad	
CIVE 5221 and CIVE 5231	Construction Project Control and Organization and Alternative Project Delivery Systems in Construction	
CIVE 5373	Transportation Systems: Analysis and Planning	
CIVE 5376	Traffic Engineering and Sustainable Urban Street Design	
CIVE 5520	Structural Systems	
CIVE 5522	Structural Systems Modeling	
CIVE 5527	Sustainable Rehabilitation of Structures	
CIVE 5528	Resilient Structural Infrastructure	
SBSY 5100	Sustainable Design and Technologies in Construction	
SBSY 5200	Sustainable Engineering Systems for Buildings	
SBSY 5250	Building Performance Simulation	
SBSY 5300	Information Systems for Integrated Project Delivery	
A maximum of 4 semester hours from the following options may count toward this minor.		
CIVE 2300 and CIVE 2301	Environmental Measurements in Natural and Engineered Systems and Lab for CIVE 2300	
CIVE 2334	Environmental Engineering: Principles, Technology, and Sustainability	
CIVE 3335	Environmental Engineering Chemistry and Chemical Technologies	
CIVE 3435	Environmental Pollution: Fate and Transport	
CIVE 4534 and CIVE 4535	Water Treatment Systems Design and Lab for CIVE 4534	
CIVE 4540	Resource Recovery and Waste Treatment Technologies Abroad	
CIVE 5100	Equity in Engineering	
CIVE 5150	Climate and Atmospheric Change	
CIVE 5250	Organic Pollutants in the Environment	
CIVE 5260	Environmental Fluid Mechanics	

CIVE 5261	Dynamic Modeling for Environmental Investment and Policymaking
CIVE 5271	Solid and Hazardous Waste Management
CIVE 5275	Life Cycle Assessment of Materials, Products, and Infrastructure
CIVE 5280	Remote Sensing of the Environment
CIVE 5281	Coastal Dynamics and Design
CIVE 5300 and CIVE 5301	Environmental Sampling and Analysis and Lab for CIVE 5300
CIVE 5363	Climate Science, Engineering Adaptation, and Policy
CIVE 5365	Climate Technologies for Decarbonization, Mitigation, and Adaptation
CIVE 5366	Air Quality Engineering and Science
CIVE 5368	Air Quality Management
CIVE 5369	Atmospheric Boundary Layer Flows
CIVE 5536	Hydrologic and Hydraulic Design

GPA Requirement

2.000 GPA required in the minor