

CIVIL ENGINEERING, MINOR

This program is available to nondepartmental majors only who would like an overview of the principles of civil engineering. Students wishing to pursue a minor in civil engineering must complete 17-18 credits in addition to the prerequisite courses of AS.171.101 General Physics: Physical Science Major I for Physical Science Majors, AS.110.108 Calculus I (Physical Sciences & Engineering), and AS.110.109 Calculus II (For Physical Sciences and Engineering). The 17-18 credits come from a combination of civil engineering fundamental courses and a choice of three courses from one of four technical areas: Structural Engineering, Geotechnical Engineering, Engineering Mechanics, and Systems Engineering. Students completing courses from the area of Geotechnical Engineering will complete the minor with 18 credits instead of 17; Soil Mechanics is a 4 credit course. No D grades can be counted toward the minor.

Program Requirements

Code	Title	Credits
Civil Engineering Fundamentals		8
EN.560.100	Civilization Engineered	3
EN.560.201	Statics & Mechanics of Materials	3
EN.560.211	Statics and Mechanics of Materials Laboratory	1
EN.560.391	Seminar/Prof Dev	.5
EN.560.392	(Seminar/Prof Dev) ¹	.5
Students must choose to focus in one of the following four technical areas		
Structural Engineering		9
EN.560.301	(Structural Systems I) ¹	3
EN.560.302	Structural Systems II	3
EN.560.445	Advanced Structural Analysis	3
Geotechnical Engineering		10
AS.270.220	The Dynamic Earth: An Introduction to Geology	3
EN.560.305	Soil Mechanics	4
EN.560.330	Foundation Design	3
Systems Engineering		9
EN.560.240	Uncertainty, Reliability and Decision-making	3
EN.560.250	(Intro to Mathematical Decision Making) ¹	3
EN.560.458	Natural Disaster Risk Modeling	3
Engineering Mechanics		9
EN.560.362	(Engg Mech & Matls) ¹	3
EN.530.430	Applied Finite Element Analysis	3
EN.560.462	Failure Mechanisms in Str Matls	3

¹ This course will be offered during the 2021-2022 Academic Year.