CIVIL ENGINEERING, MINOR

A minor in Civil Engineering is available for non-departmental majors 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, AS.110.108 Calculus I (Physical Sciences & Engineering), and AS.110.109 Calculus II (For Physical Sciences and Engineering).

The minor consists of the following:

- two fundamental civil engineering courses + a lab
- two semesters of CaSE Careers (an undergraduate seminar course)
- three courses in one technical area of your choice (Structural Engineering, Geotechnical Engineering, Mechanics of Materials, or Systems Engineering)

*Students completing courses in the area of Geotechnical Engineering will complete the minor with 18 credits instead of 17; Soil Mechanics is a 4-credit course.

All courses used to meet the Civil Engineering minor must be C- or higher.

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	CaSE Careers I	.5
EN.560.392	CaSE Careers II	.5
Students must choose to focus in one of the following four technical areas		
Structural Engineering		**9**
EN.560.301	Structural Systems I	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	3
EN.560.458	Natural Disaster Risk Modeling	3
Mechanics of Materials		**9**
EN.530.430	Applied Finite Element Analysis	3
EN.560.362	Engineering Mechanics and Materials	3
EN.560.462	Failure Mechanics in Materials	3