

CIVIL ENGINEERING (BS)

Program Requirements

Code	Title	Hours
Required General Education Courses		
PHIL-3250	Ethics	3
THEO-2000	Christian Moral Life	3
Science and Mathematics		
CHEM-1200 & CHEM-1201	General Chemistry I Lecture and General Chemistry I Laboratory	4
CHEM-1210 & CHEM-1211	General Chemistry II Lecture and General Chemistry II Lab	4
Basic Science Elective		4
MATH-1300	Calculus I	4
MATH-1350	Calculus II	4
MATH-2300	Calculus III	4
MATH-3100	Differential Equations	3
PHYS-2100 & PHYS-2101	Classical Physics I and Classical Physics I Lab	4
PHYS-2110 & PHYS-2111	Classical Physics II and Classical Physics II Lab	4
Engineering Courses		
CIVL-2000	Computing in Civil Engineering	1
CIVL-2150	Geomatics & Terrain Modeling Lab	2
CIVL-3010	Soil Mechanics & Civil Eng Materials Lab	2
CIVL-3020	Environmental & Hydraulic Engineeri Lab	2
CIVL-3510	Structural Mechanics	3
CIVL-3120	Soil Mechanics	3
CIVL-3230	Hydraulic Engineering	3
CIVL-3310	Environmental Engineering	3
CIVL-4600	Civil Engineering Design	3
CIVL-4700	Civil Engineering Seminar	1
CIVL-COMP	Senior Comprehensive Exam	0
ENGR-1200	Introduction to Engineering	2
ENGR-1500	Technical Drawing	2
ENGR-2300	Statics ¹	3
ENGR-2310	Dynamics	3
ENGR-2320	Mechanics of Materials ¹	3
ENGR-3150	Statistical Analysis of Data	3
ENGR-3170	Engineering Economy & Society	3
ENGR-3300	Fluid Mechanics	3
Engineering Elective		3
Civil Engineering Technical Electives		18
Basic Science Elective		
Select one of the following:		3-5
ASTR-3000	Observational Astronomy	
ASTR-4200	Solar System Astrophysics	
BIOL-1107	Principles of Biology	
BIOL-1121	General Biology I	
BIOL-3355	Ecology	
CHEM-2200 & CHEM-2201	Organic Chemistry I Lecture and Organic Chemistry I Lab	

NASC-1000	Environmental Science	
NASC-1100	Environmental Geology	
NASC-1400	Earth Science	
or other basic science course as approved by the school		
Engineering Elective		
Select one of the following:		3
CENG-2010	Chemical Engineering Fundamentals	
EENG-2060/3060	Linear Circuit Analysis I	
Any ENG-3000+		
Any MENG-3000+ course not already utilized for the civil engineering major.		
Civil Engineering Technical Electives		
Select 18 credits of the following:		18
CIVL-3550	Building Cmpt & System Design	
CIVL-4140	Foundation Engineering	
CIVL-4160	Transport Engineering	
CIVL-4210	Hydrology	
CIVL-4320	Environmental Engineering II	
CIVL-4440	Contracts & Specifications	
CIVL-4510	Steel Design	
CIVL-4530	Reinforced Concrete (or any CIVL-3000+ course)	
Total Hours		131-133

¹ These courses must be completed with a "C" or better to proceed to the next class in Civil Engineering.

Courses required for the major may be repeated but students must pass all required courses on their first or second attempt.