CIVIL ENGINEERING - Catalog Year 2026

Total Credits = 120-126

Freshman Year, Fall Semester

Course Code	Description	Cr	Grade
EGR 101	Intro. to Eng. Design & Innov. (A4)	2	
MTH 141 +	Calculus I (A1, B3)	4	
CHM 101	General Chemistry Lec I (A1)	3	
CHM 102	General Chem I Lab	1	
ECN 201	Principles of Microeconomics (A2)	3	
	General Education Outcome(s)[1]	3	
		16	

Freshman Year, Spring Semester

Course Code	Description	Cr	Grade
EGR 106	Matlab for Engineering Applications (A4)	2	
MTH 142 +	Calculus II (A1, B3)	4	
PHY 203	Elementary Physics I (A1)	3	
PHY 273	Elementary Physics Lab I (A1)	1	
GEO 103	Understanding the Earth (A1, B4)	4	
	General Education Outcome(s)[1]	3	
		17	

Sophomore Year, Fall Semester

Course Code	Description	Cr	Grade
CVE 205	Basic Surveying	1	
MCE 262	Statics	3	
MTH 243 +	Calculus for Functions of Several Vars (A1, B3)	3	
PHY 204	Elementary Physics II (A1)	3	
PHY 274	Elementary Physics Lab II (A1)	1	
ISE 311	Probability and Statistics for Engineers	3	
WRT 332	Technical Writing (B1, B2)	3	
		17	

Sophomore Year, Spring Semester

Course Code	Description	Cr	Grade
CHM 112 +	General Chemistry II Lecture	3	
CVE 220	Mechanics of Materials	3	
CVE 230	Mechanics of Materials Lab	1	
CVE 250	CADD for Civil Engineers	3	
MCE 263	Dynamics	3	
MTH 244	Differential Equations	3	
		16	

Junior Year, Fall Semester

Course Code	Description	Cr	Grade
CVE 346 +	Transportation Engineering	3	
CVE 354 +	Structural Engineering	3	
CVE 355	Structural Engineering Lab	1	
CVE 374 +	Environmental Engineering	3	
CVE 381 +	Geotechnical Engineering	3	
CVE 382	Geotechnical Engineering Lab	1	
MCE 354	Fluid Mechanics	3	
		17	

Junior Year, Spring Semester

Course Code	Description	Cr	Grade
CVE 347	Highway Engineering	3	
CVE 348	Highway Engineering Lab	1	
CVE 370 +	Hydraulic Engineering	3	
CVE 375	Environmental Engineering Lab	1	
ISE 304	Engineering Economy and Project Planning	3	
EGR 316G	Engineering Ethics (A3, C1)	3	
		14	

Senior Year, Fall Semester

Course Code	Description	Cr	Grade
CVE 465	Analysis & Design of Concrete Structures	3	
CVE 483	Foundation Engineering	3	
CVE 497	Civil Engineering Design I [capstone]	2	
	Professional Elective[2]	3	
	Professional Elective[2]	3	
		14	

Senior Year, Spring Semester

Course Code	Description	Cr	Grade
CVE 460	Steel Structures	3	
CVE 498	Civil Engineering Design II (D1) [capstone]	3	
	Professional Elective[2]	3	
	Professional Elective[2]	3	
	Professional Elective[2]	3	
	Take FE Examination[3]		
		15	

Notes:

+ Course pre-requsites include grade requirements in previous coursework, see catalog or eCampus course description for details.

1) General Education Outcomes (A1-D1): if all outcomes are satisfied in fewer spaces than provided, you must take a course(s) of your choice (Free Elective) to ensure you have earned at least 120 credits as required to earn a BS degree. A complete detailing of these requirements are listed in the college's curriculum requirements section of this catalog.

2) Professional Elective Requirements: Three (3) of the fifteen (15) credits must be selected from the following courses: CVE 470, 471, 475, 477, 484. The remaining twelve (12) credits can be any 300-level and above CVE courses. A maximum of six (6) credits of Special Problems (CVE 491 or 492) may be taken. Strongly recommended courses include CVE 453.

3) Fundamentals of Engineering (FE) Examination: All CVE majors are required to take the FE Examination offered by NCEES as a part of graduation requirements. Official NCEES proof of having taken the exam is required.

EGR101 is intended for and required of all first-year engineering students. Course substitution is considered only on an exception basis for transfer students with 24 or more earned credits, or for students with unique circumstances, and requires prior approval of the Assistant Dean for Undergraduate Affairs.