

CIVIL ENGINEERING - Catalog Year 2019

Total Credits = **126**

Freshman Year *Fall Semester*

Course Code	Description	Cr	
CHM 101	General Chemistry Lec I (A1)	3	
CHM 102	General Chem I Lab	1	
EGR 105	Foundations of Engineering I (A4)	1	
MTH 141 +	Calculus I (A1, B3)	4	
ECN 201	Principles of Microeconomics (A2)	3	
	General Education Outcome(s)*	3	
		15	

Freshman Year *Spring Semester*

Course Code	Description	Cr	
EGR 106	Foundations of Engineering II (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)*	3	
		17	

Sophomore Year *Fall Semester*

Course Code	Description	Cr	
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	
STA 409	Statistics	3	
WRT 332	Technical Writing (B1, B2)	3	
		17	

Sophomore Year *Spring Semester*

Course Code	Description	Cr	
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	

Admission to the COE required for enrollment in "300" level and higher COE courses. Admission requires at least a 2.0 cumulative GPA and a C- or higher in each of the following; EGR 105 & 106, CHM 101/102, MTH 141 & 142, PHY 203/273, and either PHY 204/274 or CHM 112/114

Junior Year *Fall Semester*

Course Code	Description	Cr	
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	
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	
	Professional Elective**	3	
		14	

Senior Year *Fall Semester*

Course Code	Description	Cr	
CVE 400	Civil Engineering Licensure	1	
CVE 465	Analysis & Design of Concrete Structures	3	
CVE 483	Foundation Engineering	3	
CVE 497	Civil Engineering Design I	2	
	Professional Elective**	3	
	Professional Elective**	3	
		15	

Senior Year *Spring Semester*

Course Code	Description	Cr	
CVE 498	Civil Engineering Design II (D1)	3	
	Professional Elective**	3	
	Professional Elective**	3	
	General Education Outcome(s)*	3	
	General Education Outcome(s)*	3	
---	Take FE Examination***	---	
		15	

***General Education Outcomes:** if all Outcomes are satisfied in fewer spaces than provided, you must complete additional coursework of your choice (Free Elective) to ensure you have earned at least 120 credits as required to earn a BS degree. See the "General Education Outcomes" section at the bottom of page two for more information on satisfying these requirements.

****Professional Electives: Three (3)** of the fifteen (15) credits must be selected from the following courses: CVE 470, 471, 475, 477. The remaining **twelve (12)** credits can be any 300-level and above CVE courses and may include three (3) credits from the following courses: CHE 333, ELE 220, MCE 341, or MTH 215. A maximum of six (6) credits of Special Problems (CVE 491 or 492) may be applied. Strongly recommended courses include CVE 453, 460.

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

+ Course prerequisites include grade requirements in previous coursework, see catalog or eCampus course description for details

