

Fall 2021 Degree Plan

College/Department: Engineering/Civil & Environmental Engineering
Program/Major: Civil Engineering

Degree: BSCE
Total Program Hours: 128

First Year (Freshman)

Course Number	Course Name	Hrs.
ENGL 1301	Freshman Composition I	3
MATH 2413	Calculus I (Pre-req: (MATH 1314 & MATH 1316) OR MATH 1511)	4
CHEM 1403	Chemistry for Engineers (Pre-req: CHEM 1303 or CHEM 1311)	4
CHEM 1102	General Chemistry Lab II (Pre-req: (MATH 1314 or MATH 1511) & (CHEM 1403 or CHEM 1304 (maybe taken concurrently)))	1
CVEG 1101	Intro Engineering & Comp Sci(Co-req: CVEG 1102)	1
GNEG 1010	Engr. Professionalism and Career Development (Co-Req: CVEG 1101)	0
CVEG 1102	Intro to Civil Engineering Lab (Co-Req: CVEG 1101)	1
BIOL 13XX	Science Elective: BIOL 1307 or BIOL 1308 or BIOL 1309	3
Total =		17

First Year (Freshman)

Course Number	Course Name	Hrs.
ENGL 2311	Technical and Business Writing (Pre-req:ENGL 1301)	3
MATH 2414	Calculus II (Pre-req: MATH 2413)	4
CVEG 2304	Global Development Issues	3
ELEG 1304	Computer Appl. In Engr(Pre-Req: MATH 1314 or MATH 1511 or MATH 1316 or MATH 2413 (may be taken concurrently))	3
PHYS 2325	University Physics I (Pre-Req:MATH 2413)	3
PHYS 2125	University Physics Lab I (Pre-Req: PHS2325 - may be taken concurrently)	1
Total =		17

Second Year (Sophomore)

Course Number	Course Name	Hrs.
MATH 2320	Differential Equations (Pre-Req: MATH 2414)	3
PHYS 2326	University Physics II (Pre-Req: PHYS 2325 & MATH 2414)	3
PHYS 2126	University Physics Lab II (Pre-Req: PHYS 2326 - may be taken concurrently)	1
CHEG 2308	Eco Anal Technical Application (Pre-Req: MATH 2413)	3
CVEG 2301	Engineering Mechanics I (Pre-req: PHYS 2325)	3
COMM 1311	Introduction to Speech Communication	3
CVEG 2102	Surveying and Geospatial Concepts (Pre-req: MATH 2413 & CVEG 2304)	1
Total =		17

Second Year (Sophomore)

Course Number	Course Name	Hrs.
ELEG 2315	Intro Electrical Engineering (Pre-Req: MATH 2320 (may be taken concurrently) & PHYS 2326)	3
MCEG 2301	Thermodynamics I (Pre-Req: MATH 2414 & PHYS 2325)	3
MATH 3302	Probability and Statistics (Pre-Req:MATH 2414)	3
CVEG 2332	Mechanics of Materials (Pre-Req: (CVEG 2301 or CVEG 2454) & MATH 2414)	3
CVEG 2101	Materials and Dynamics Lab (Pre-Req: (ENGL 1302 or ENGL 2311) & CVEG 2301)	1
CVEG 3302	Transportation Engineering (Pre-req: MATH 2320(may be taken concurrently) & CHEG 2308 & CVEG 2102 & COMM 1311)	3
Total =		16

Third Year (Junior)

Course Number	Course Name	Hrs.
MATH 4317	Advanced Math for Engineers (Pre-Req: MATH 2320)	3
CVEG 3304	Structural Analysis (Pre-req: CVEG 2332)	3
	Language, Philosophy and Culture Core	3
CVEG 3100	Concrete and Steel Laboratory (Pre-req: CVEG 2332 & CVEG 2101)	1
CVEG 4302	Transportation Engr Design (pre-req: CVEG 3302)	3
CVEG 3303	Hydraulics (Pre-req: CVEG 2301)	3
Total =		16

Third Year (Junior)

Course Number	Course Name	Hrs.
CVEG 3300	Geotechnical Engineering (Pre-req: CVEG 2101 & CVEG 2332)	3
CVEG 3305	Steel Design (Pre-req: CVEG 3304)	3
CVEG 4304	Systems Engineering (Pre-req: MATH 3302 & CVEG 3302)	3
CVEG 3301	Environmental Engineering (Pre-req: ((CHEM 1403 or (CHEM 1303 & CHEM 1304)) & CHEM 1112 & (BIOL 1307 or BIOL 1308or BIOL 1309))	3
CVEG 4303	Water Resources Engr (Pre-req: CVEG 3303)	3
Total =		15

Fourth Year (Senior)

Course Number	Course Name	Hrs.
CVEG 4300	Reinforced Concrete (Pre-req: CVEG 3100 & CVEG 3304)	3
CVEG 4301	Environmental Engr Design (Pre-req: CVEG 3301)	3
CVEG 4200	Sr Design & Professionalism I (Pre-req: (CVEG 3300 & CVEG 3301 & CVEG 3302 & CVEG 3303 & CVEG 3304)	2
CVEG 4100	Geotechnical Engineering Design Lab (Pre-req: CVEG 3300)	1
HIST 1301	United States History 1	3
POSC 2305	American Government	3
Total =		15

Fourth Year (Senior)

Course Number	Course Name	Hrs.
HIST 1302	United States History II	3
	Creative Arts Elective	3
CVEG 3102	Professional Engineering I (Pre-req: MATH 3302 & MATH 4317 and CVEG 3300 & CVEG 3100 & CVEG 3304 & CVEG 3302 & CVEG 3303 & CHEG 2308	1
CVEG 4201	Sr Design & Professionalism II (Pre-req: CVEG 4200)	2
POSC 2306	Texas Government	3
	Approved Technical Elec. (CVEG or Other)	3
Total =		15