

# Fall 2022 Degree Plan

<b>College/Department:</b>	<u>Engineering/Civil &amp; Environmental Engineering</u>	<b>Degree:</b>	<b>BSCÉ</b>
<b>Program/Major:</b>	<u>Civil Engineering</u>	<b>Total Program Hours:</b>	<b>128</b>

## First Year (Freshman)

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Fall Semester			Spring Semester		
Course Number	Course Name	Hrs.	Course Number	Course Name	Hrs.
ENGL 1301	Freshman Composition I	3	ENGL 2311	Technical and Business Writing (Pre-req: ENGL 1301)	3
MATH 2413	Calculus I (Pre-req: (MATH 1314 & MATH 1316) OR MATH 1511)	4	MATH 2414	Calculus II (Pre-req: MATH 2413)	4
CHEM 1403	Chemistry for Engineers (Pre-req: CHEM 1303 or CHEM 1311)	4	CVEG 2304	Global Development Issues	3
CHEM 1112	General Chemistry Lab II (Pre-req: (MATH 1314 or MATH 1511) & (CHEM 1403 or CHEM 1304 (maybe taken concurrently)))	1	ELEG 1304	Computer Appl. In Engr (Pre-Req: MATH 1314 or MATH 1511 or MATH 1316 or MATH 2413 (may be taken concurrently))	3
CVEG 1101	Intro Engineering & Comp Sci (Co-req: CVEG 1102)	1	PHYS 2325	University Physics I (Pre-Req: MATH 2413)	3
CVEG 1102	Intro to Civil Engineering Lab (Co-Req: CVEG 1101)	1			
	Science Elective: BIOL 1307 or BIOL 1308 or BIOL 1309	3	PHYS 2125	University Physics Lab I (Pre-Req: PHS2325 - may be taken concurrently)	1
<b>Total = 17</b>			<b>Total = 17</b>		

## Second Year (Sophomore)

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Fall Semester			Spring Semester		
Course Number	Course Name	Hrs.	Course Number	Course Name	Hrs.
MATH 2320	Differential Equations (Pre-Req: MATH 2414)	3	ELEG 2315	Intro Electrical Engineering (Pre-Req: MATH 2320 (may be taken concurrently) & PHYS 2326)	3
PHYS 2326	University Physics II (Pre-Req: PHYS 2325 & MATH 2414)	3	MCEG 2301	Thermodynamics I (Pre-Req: MATH 2414 & PHYS 2325)	3
PHYS 2126	University Physics Lab II (Pre-Req: PHYS 2326 - may be taken concurrently)	1	MATH 3302	Probability and Statistics (Pre-Req: MATH 2414)	3
CHEG 2308	Eco Anal Technical Application (Pre-Req: MATH 2413)	3	CVEG 2332	Mechanics of Materials (Pre-Req: (CVEG 2301 or CVEG 2454) & MATH 2414)	3
CVEG 2301	Engineering Mechanics I (Pre-req: PHYS 2325)	3	CVEG 2101	Materials and Dynamics Lab (Pre-Req: (ENGL 1302 or ENGL 2311) & CVEG 2301)	1
COMM 1311	Introduction to Speech Communication	3	CVEG 3302	Transportation Engineering (Pre-req: MATH 2320 (may be taken concurrently) & CHEG 2308 & CVEG 2102 & COMM 1311)	3
CVEG 2102	Surveying and Geospatial Concepts (Pre-req: MATH 2413 & CVEG 2304)	1			
<b>Total = 17</b>			<b>Total = 16</b>		

## Third Year (Junior)

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Fall Semester			Spring Semester		
Course Number	Course Name	Hrs.	Course Number	Course Name	Hrs.
MATH 4317	Advanced Math for Engineers (Pre-Req: MATH 2320)	3	CVEG 3300	Geotechnical Engineering (Pre-req: CVEG 2101 & CVEG 2332)	3
CVEG 3304	Structural Analysis (Pre-req: CVEG 2332)	3	CVEG 3305	Steel Design (Pre-req: CVEG 3304)	3
	Language, Philosophy and Culture Core	3	CVEG 4304	Systems Engineering (Pre-req: MATH 3302 & CVEG 3302)	3
CVEG 3100	Concrete and Steel Laboratory (Pre-req: CVEG 2332 & CVEG 2101)	1	CVEG 3301	Environmental Engineering (Pre-req: ((CHEM 1403 or (CHEM 1303 & CHEM 1304)) & CHEM 1112 & (BIOL 1307 or BIOL 1308 or BIOL 1309))	3
CVEG 4302	Transportation Engr Design (pre-req: CVEG 3302)	3	CVEG 4303	Water Resources Engr (Pre-req: CVEG 3303)	3
CVEG 3303	Hydraulics (Pre-req: CVEG 2301)	3			
<b>Total = 16</b>			<b>Total = 15</b>		

## Fourth Year (Senior)

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Fall Semester			Spring Semester		
Course Number	Course Name	Hrs.	Course Number	Course Name	Hrs.
CVEG 4300	Reinforced Concrete (Pre-req: CVEG 3100 & CVEG 3304)	3	HIST 1302	United States History II	3
CVEG 4301	Environmental Engr Design (Pre-req: CVEG 3301)	3		Creative Arts Elective	3
CVEG 4200	Sr Design & Professionalism I (Pre-req: (CVEG 3300 & CVEG 3301 & CVEG 3302 & CVEG 3303 & CVEG 3304)	2	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 4100	Geotechnical Engineering Design Lab (Pre-req: CVEG 3300)	1	CVEG 4201	Sr Design & Professionalism II (Pre-req: CVEG 4200)	2
HIST 1301	United States History I	3	POSC 2306	Texas Government	3
POSC 2305	American Government	3		Approved Technical Elec. (CVEG or Other)	3
<b>Total = 15</b>			<b>Total = 15</b>		