

# Civil Engineering, B.S.

Accredited by the Engineering Accreditation Commission of ABET, <https://www.abet.org/>

Course	Title	Semester Credit Hours
<b>Freshman Year</b>		
<b>Semester 1</b>		
AEEN 1310	Computr Graphics and Applicatn	3
ENGL 1301	Rhetoric and Composition	3
MATH 2413	Calculus I	4
PHYS 2325 & PHYS 2125	University Physics I and University Physics I Lab	4
GEEN 1201	Engineering as a Career	2
<b>Semester Credit Hours</b>		<b>16</b>
<b>Semester 2</b>		
ENGL 1302	Rhetoric and Composition	3
HIST 1301	American History to 1877	3
MATH 2414	Calculus II	4
PHYS 2326 & PHYS 2126	University Physics II and University Physics II Lab	4
Creative Arts		3
<b>Semester Credit Hours</b>		<b>17</b>
<b>Sophomore Year</b>		
<b>Semester 1</b>		
CEEN 2113	Surveying Lab	1
CEEN 2212	Surveying	2
CEEN 2301	Mechanics I	3
CHEM 1311 & CHEM 1111	Gen Inorganic Chemistry I and Gen Inorganic Chem Lab I	4
HIST 1302	American History since 1877	3
POLS 2301	Government and Politics of US	3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Semester 2</b>		
CEEN 3311	Strength of Materials	3
MATH 3320	Differential Equations	3
MEEN 2302	Mechanics II Dynamics	3
Computer Elective <sup>1</sup>		3
Communications <sup>2</sup>		3
Lang/Phil/Culture		3
<b>Semester Credit Hours</b>		<b>18</b>
<b>Junior Year</b>		
<b>Semester 1</b>		
CEEN 3143	Geotechnical Eng Lab	1
CEEN 3303	Structural Analysis	3
CEEN 3342	Geotechnical Engineering	3
CEEN 3392	Hydraulic and Fluid Mechanics	3
STAT 4303	Statistical Methods	3
Science Elective <sup>3</sup>		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Semester 2</b>		
CEEN 3145	Construction Materials Lab	1

CEEN 3167	Hydraulics/Fluid Mechanics Lab	1
CEEN 3244	Construction Materials	2
CEEN 3304	Reinforced Concrete Design	3
CEEN 3365	Environmental Engineering	3
Math and Sci Elective (p. 2)		3
Special Elective <sup>4</sup>		3
<b>Semester Credit Hours</b>		<b>16</b>
<b>Senior Year</b>		
<b>Semester 1</b>		
CEEN 3317	Engineering Economy	3
CEEN 4279	Design in Civil Engineering I	2
CEEN 4316	Structural Steel Design (WI)	3
CEEN 4362	Hydrology	3
POLS 2302	Government and Politics of TX	3
CEEN 4350	Professional Preparation	3
<b>Semester Credit Hours</b>		<b>17</b>
<b>Semester 2</b>		
CEEN 4289	Design in Civil Engineering II	2
CEEN 4359	Prin of Transportation Eng	3
Engineering Elective (p. 2)		3
Engineering Elective (p. 2)		3
Social/Behavioral		3
<b>Semester Credit Hours</b>		<b>14</b>
<b>Total Credit Hours Required:</b>		<b>130</b>

<sup>1</sup> Computer Elective: MEEN 1320, CSEN 2304, or CEEN 3315.

<sup>2</sup> Strongly recommended: COMS 2374 or ENGL 2374.

<sup>3</sup> Approved science electives: BIOL 1306, GEOL 1303.

<sup>4</sup> Special Elective: AEEN 3346 or EEEN 3331.

## Math and Science Elective

Additional mathematics and science electives recommended:

CHEM 1312 or any approved upper-level biology, chemistry, or physics course.

Code	Title	Semester Credit Hours
MATH 3415	Calculus III	4
MATH 4341	Linear Alg and Matrix Theory	3
MATH 4372	Math for Physics and Eng I	3
MATH 4374	Numerical Analysis	3

Or any other approved upper-level mathematics course.

## Engineering Electives

Code	Title	Semester Credit Hours
CEEN 3315	Computer Methods in Civil Engr	3
AEEN 4310	Computer Modeling	3
CEEN 3389	Structural Vibration	3
CEEN 4314	Matrix Methds and Struc Analys	3
CEEN 4326	Construction Engineering	3

CEEN 4336	Selected Topics	1-3
CEEN 4340	Eng Proj Est, Plan & Control	3
CEEN 4364	Dsgn Wtr and Wstwr Convey Sys	3
CEEN 4367	Intro to Geoenviron Enginrng	3
CEEN 4368	Foundation Engineering	3
CEEN 4369	Transportation Eng Design	3

Note: CEEN 3315 can only be counted once for either the Computer Elective or and Engineering Elective.