

**Bachelor of Science in Civil Engineering
2023-2024**

Freshman Year

Fall Semester	Hrs	Spring Semester	Hrs
BIOL 1003, Biological Science OR BIOL 1063, People and the Environment	3	CHEM 1011, Lab. for General Chemistry I CHEM 1013, General Chemistry I	1 3
COMS 1203, Oral Communications	3	ENG 1013, Composition II	3
ENG 1003, Composition I	3	ENGR 1412, Software Applications for Engineers	2
ENGR 1402, Concepts of Engineering	2	MATH 2214, Calculus II	4
MATH 2204, Calculus I	4	PHYS 2034, University Physics I	4
	<hr/> 15		<hr/> 17

Sophomore Year

Fall Semester	Hrs	Spring Semester	Hrs
CE 2223, Plane Surveying	3	CE 2202, C.E. Presentations	2
CE 3263, Intro to Environmental	3	CE 3213, Structural Analysis I	3
ENGR 2403, Statics	3	ENGR 2401, Applied Engineering Statistics	1
MATH 3254, Calculus III	4	ENGR 2411, Lab. for Mechanics of Materials	1
+ Science Elective	4	ENGR 2413, Mechanics of Materials	3
		ENGR 3471, Lab. for Fluid Mechanics	1
		ENGR 3473, Fluid Mechanics	3
		MATH 4403, Differential Equations	3
	<hr/> 17		<hr/> 17

Junior Year

Fall Semester	Hrs	Spring Semester	Hrs
CE 3224, C.E. Materials	4	CE 3253, Engineering Hydrology	3
*CE 3233, Structural Analysis II OR ++Humanities Elective	3	CE 4251, Lab. for Soil Mechanics	1
ENGR 3433, Engineering Economics	3	CE 4253, Soil Mechanics	3
ENGR 3443, Engineering Thermo. I OR ENGR 2423, Electric Circuits I	3	CE 4283, Structural Steel Design	3
ENGR 4453, Num. Meth. for Engineers	3	ENGR 3423, Dynamics	3
		++Social Science Elective	3
	<hr/> 16		<hr/> 16

Senior Year

Fall Semester	Hrs	Spring Semester	Hrs
CE 3273, Water and Waste Systems	3	CE 4223, Transportation Engineering II	3
CE 4203, Transportation Engineering I	3	**CE Elective	3
CE 4233, Foundation Engineering	3	ENGR 4482, Senior Design II	2
CE 4243, Reinforced Concrete	3	++Fine Arts Elective	3
ENGR 4401, Senior Seminar	1	++Humanities Elective OR	
ENGR 4463, Senior Design I	3	*CE 4263, Water and Waste Treatment	3
	<hr/> 16		<hr/> 14
		Total	<hr/> 128

*Students must take one of either CE 3233 OR CE 4263. Only 1 Humanities Elective (3 hrs total) req'd for all students.

** CE 3233 Structural Analysis II OR CE 4263 Water and Waste Treatment OR CE 4803 Open-Channel Flow OR CE 4813 Groundwater Hydrology OR CE 4823 Earthquake Engineering OR CE 4893 Sustainability and Water Resources OR SUR 4023 Advanced Surveying (see bulletin for semester of offering on available electives)

++See reverse side for listing of courses to fulfill general education requirements

+CHEM 1023 General Chemistry II and CHEM 1021 Lab. for Gen. Chem. II or GEOL 1003 Environmental Geology and GEOL 1001 Lab. for Env. Geol. or PHYS 2044 University Physics II

General Education Curriculum for Engineering Baccalaureate Degrees

	Semester Hours
Communication	9
ENG 1003, Composition I ENG 1013, Composition II COMS 1203, Oral Communications	
Mathematics	4
MATH 2204, Calculus I	
Arts and Humanities	6
Fine Arts. Select one of the following: Humanities. Select one of the following:	
MUS 2503, Fine Arts – Musical ENG 2003, World Literature to 1660	
THEA 2503, Fine Arts – Theater ENG 2013, World Literature since 1660	
ART 2503, Fine Arts – Visual PHIL 1103, Introduction to Philosophy	
Social Sciences	11
Select one of the following:	
HIST 2763, The United States to 1876	
HIST 2773, The United States since 1876	
POSC 2103, Introduction to United States Government	
Substitution of Higher Math (8hrs required): MATH 2214, Calculus II AND MATH 3254, Calculus III	
Science.....	8
CHEM 1013, General Chemistry I, and CHEM 1011, Laboratory for General Chemistry I	
PHYS 2034, University Physics I	

38

Other rules:

A course may be counted in satisfaction of only one area requirement. With the exception of English courses (ENG), no more than two selections may have the same prefix.

Additional required support courses:

BIOL 1003, Biological Science OR BIOL 1063, People and the Environment	3
MATH 4403, Differential Equations	3
Science Elective.....	4

10

Engineering Core Courses:

ENGR 1402, Concepts of Engineering	2
ENGR 1412, Software Applications for Engineers.....	2
ENGR 2401, Applied Engineering Statistics.....	1
ENGR 2403, Statics.....	3
ENGR 3433, Engineering Economics.....	3
ENGR 4401, Senior Seminar.....	1
ENGR 4453, Numerical Methods for Engineers	3
ENGR 4463, Senior Design I	3
ENGR 4482, Senior Design II.....	2

20

Civil Engineering Major Courses:

ENGR 2411, Mechanics of Materials Laboratory.....	1
ENGR 2413, Mechanics of Materials.....	3
ENGR 3423, Dynamics	3
ENGR 3443, Engineering Thermodynamics I OR ENGR 2423, Electric Circuits I.....	3
ENGR 3471, Fluid Mechanics Laboratory	1
ENGR 3473, Fluid Mechanics	3
CE 2202, Civil Engineering Presentations.....	2
CE 2223, Plane Surveying	3
CE 3213, Structural Analysis I.....	3
CE 3224, Civil Engineering Materials	4
CE 3233, Structural Analysis II or CE 4263 Water and Waste Treatment.....	3
CE 3253, Engineering Hydrology	3
CE 3263, Introduction to Environmental Engineering	3
CE 3273, Water and Waste Systems	3
CE 4203, Transportation Engineering I.....	3
CE 4223, Transportation Engineering II	3
CE 4233, Foundation Engineering	3
CE 4243, Reinforced Concrete Design.....	3
CE 4251, Soil Mechanics Laboratory	1
CE 4253, Soil Mechanics	3
CE 4283, Structural Steel Design.....	3
CE Elective**	3

60

** CE 3233 Structural Analysis II OR CE 4263 Water and Waste Treatment OR CE 4803 Open-Channel Flow OR CE 4813 Groundwater Hydrology OR CE 4823 Earthquake Engineering OR CE 4893 Sustainability and Water Resources OR SUR 4023 Advanced Surveying