

BACHELOR OF SCIENCE IN CIVIL ENGINEERING

2023-2024 Degree Requirements

TOTAL CREDITS FOR DEGREE: 129

Name: _____

ID Number: _____

UNIVERSITY CORE CURRICULUM: 43 cr.

Required Fundamental Course:

COMM 101	Oral Comm. & Pres.	3 credits	
ENGL 101	College Composition	3 credits	
UNIV 101	City-University Life	3 credits	
Senior Capstone	CE 407	3 credits	Capstone

Choose Thematic Core courses in the following:

Explore the World - Choice 1		3 credits	
Explore the World - Choice 2		3 credits	
Investigate Science	CHEM 101	3 credits	(General Chemistry I)
Investigate Mathematics	MATH 190	4 credits	(Calculus I)
Interpret Creative Works		3 credits	
Understand People - Choice 1		3 credits	
Understand People - Choice 2		3 credits	
Succeed in Business	ECON 202	3 credits	
Appreciate & Apply the Arts		3 credits	
Discover Technology	EGTR 101	3 credits	

MAJOR REQUIREMENTS: 86 cr.

CE 205 Intro to Surveying (3)	CHEM 102 Gen Chem II (3)
CE 209 Eng Geo (3)	CHEM 103 Gen Chem Lab I (1)
CE 213 Strength of Materials (3)	CHEM 104 Gen Chem Lab II (1)
CE 214 Strength of Mt Lab (1)	ET 405 Fund of Engr Exam I (0)
CE 309 Soil Mechanics (3)	ET 406 Fund of Engr Exam II (0)
CE 310 Structural Analysis (3)	ETGR 205 Eng Tech Graphics (3)
CE 315 Structural Design I (3)	MATH 210 Calculus II (4)
CE 316 Structural Design II (3)	MATH 230 Linear Algebra
CE 319 Soil Mech Lab (1)	MATH 310 Differential Eq (3)
CE 320 Environ. Eng Tech I(3)	MATH 330 Mathematical Stats (3)
CE 321 Environ Eng Tech II (3)	ME 101 Statics (3)
CE 401 Construction Mgmt (3)	ME 102 Dynamics (3)
CE 409 Foundations Des (3)	NSET 218 Tech Comm (3)
CE 410 Highway/Bridge Des (3)	PHYS 103 Physics Lab I (1)
CE 411 Fluid Mech (3)	PHYS 104 Physics Lab II (1)
CE 412 Fluid Mech Lab (1)	PHYS 201 Fund of Phys I (3)
CE 418 Hydraulics (3)	PHYS 202 Fund of Phys II (3)
	ME 212 Prop of Materials (3)

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STUDENT OUTCOMES

Upon successful completion of this program:

Student Learning Outcomes

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social environmental, and economic factors
3. An ability to communicate effectively with a range of audiences.

4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.
5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.

6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions.
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.