BACHELOR OF SCIENCE IN CIVIL ENGINEERING

2024-2025 Degree Requirements

TOTAL CREDITS FOR DEGREE: 129

Name: _____ **ID Number:** _____

UNIVERSITY CORE CURRICULUM: 43 cr.

Required Fundamental Courses

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	**(Civil Engineering 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	**(Princ. of Microeconomics)**
Appreciate & Apply the Arts		3 credits	
Discover Technology	**EGR 101**	3 credits	**(Introduction to Engineering)**

MAJOR REQUIREMENTS: 86 cr.

CE 205 Intro to Surveying (3)
CE 209 Eng Geo (3)
CE 213 Strength of Materials (3)
CE 214 Strength of Mt Lab (1)
CE 309 Soil Mechanics (3)
CE 310 Structural Analysis (3)
CE 315 Structural Design I (3)
CE 316 Structural Design II (3)
CE 319 Soil Mech Lab (1)
CE 320 Environ. Eng Tech I(3)
CE 321 Environ Eng Tech II (3)
CE 401 Construction Mgmt (3)
CE 409 Foundations Des (3)
CE 410 Highway/Bridge Des (3)
CE 411 Fluid Mech (3)
CE 412 Fluid Mech Lab (1)
CE 418 Hydraulics (3)

CHEM 102 Gen Chem II (3)
CHEM 103 Gen Chem Lab I (1)
CHEM 104 Gen Chem Lab II (1)
ET 405 Fund of Engr Exam I (0)
ET 406 Fund of Engr Exam II (0)
ETGR 205 Eng Tech Graphics (3)
MATH 210 Calculus II (4)
MATH 230 Linear Algebra
MATH 310 Differential Eq (3)
MATH 330 Mathematical Stats (3)
ME 101 Statics (3)
ME 102 Dynamics (3)
NSET 218 Tech Comm (3)
PHYS 103 Physics Lab I (1)
PHYS 104 Physics Lab II (1)
PHYS 201 Fund of Phys I (3)
PHYS 202 Fund of Phys II (3)
ME 212 Prop of Materials (3)

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2024-2025 Degree Requirements

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 interupt data, and use engineering judgement to draw conclusions.

7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.