

BACHELOR OF SCIENCE IN CIVIL ENGINEERING TECHNOLOGY

2017-2018 Degree Requirements

TOTAL CREDITS FOR DEGREE: 130

UNIVERSITY CORE CURRICULUM 43 credits

Required Courses:

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

Choose thematic core courses in the following:

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|------------------------------|-----------|
| Explore the World - Choice 1 | 3 credits |
| Explore the World - Choice 2 | 3 credits |
| Investigate Science | 3 credits |
| Investigate Mathematics | 4 credits |
| Interpret Creative Works | 3 credits |
| Understand People - Choice 1 | 3 credits |
| Understand People - Choice 2 | 3 credits |
| Succeed in Business | 3 credits |
| Appreciate & Apply the Arts | 3 credits |
| Discover Technology | 3 credits |

MAJOR REQUIREMENTS: 87 credits (C = taken in the Core)

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|----------|---------------------------------------|----------|----------|---|----------|
| CET 205 | Intro to Surveying | 3 | CHEM 103 | General Chemistry Lab I | 1 |
| CET 206 | Environ. Eng. Tech. I | 3 | CHEM 104 | General Chemistry Lab II | 1 |
| CET 209 | Engineering Geology | 3 | ET 405 | Fund. of Engr. Exam I | 0 |
| CET 212 | Properties of Materials | 3 | ET 406 | Fund. of Engr. Exam II | 0 |
| CET 213 | Strength of Materials | 3 | ET 407 | Prof. Prob. in Eng. Tech. (Senior Capstone) | C |
| CET 214 | Strength of Materials Lab | 1 | ETGR 205 | Engineering Tech. Graphics | 3 |
| CET 309 | Soil Mechanics | 3 | MATH 181 | Pre-Calculus | 4 |
| CET 310 | Structural Analysis | 3 | MATH 190 | Calculus I (Investigate Math) | C |
| CET 315 | Structural Design I | 3 | MATH 210 | Calculus II | 4 |
| CET 316 | Structural Design II | 3 | MATH 230 | Linear Algebra OR | 3 |
| CET 317 | Concrete Mix Design Lab | 1 | MATH 310 | Differential Equations | 3 |
| CET 319 | Soil Mechanics Lab | 1 | MATH 330 | Mathematical Statistics | 3 |
| CET 321 | Environ. Eng. Tech. II | 3 | ME 101 | Statics | 3 |
| CET 405 | Software Tools for CET | 2 | ME 102 | Dynamics | 3 |
| CET 409 | Foundations Design | 3 | NSET 101 | Intro to NSET (Discover Technology) | C |
| CET 410 | Highway/Bridge Design | 3 | NSET 218 | Technical Communications | 3 |
| CET 411 | Fluid Mechanics | 3 | PHYS 103 | Physics Lab I | 1 |
| CET 412 | Fluid Mechanics Lab | 1 | PHYS 104 | Physics Lab II | 1 |
| CET 418 | Hydraulics | 3 | PHYS 201 | Fundamentals of Physics I | 3 |
| CHEM 101 | General Chem. I (Investigate Science) | C | PHYS 202 | Fundamentals of Physics II | 3 |
| CHEM 102 | General Chemistry II | 3 | | | |

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2017-2018 Degree Requirements

STUDENT LEARNING OUTCOMES

Upon successful completion of this program, a student will be able to:

1. Analyze and design components and systems from each of four civil engineering technology specialties using hand calculations or computer applications.
2. Conduct laboratory and field measurements, process the resulting data, and interpret and present the results.
3. Determine materials properties and apply those properties to civil engineering problem solution.
4. Solve engineering technology problems by using computational methods, analytical techniques, or software.
5. Solve engineering technology problems by applying principles of mathematics, science, and engineering.
6. Collaborate in laboratory and classroom settings to fulfill technical requirements in a timely manner.
7. Produce clear, precise, and effective technical documents and oral presentations.
8. Plan and manage technical projects.
9. Be prepared to grow professionally through independent learning, continuing education, and participation in technical societies.
10. Take the Fundamentals of Engineering examination as the first step toward professional licensure.
11. Be familiar with the laws and codes governing professional practice.
12. Understand their personal and professional roles in society.