Bachelor of Science in Civil Engineering

2017-2018

# Freshman Year

**Fall Semester Hrs Spring Semester Hrs**

BIOL 1063, People and the Environment 3 CHEM 1011, Lab. for General Chemistry I 1

ENG 1003, Composition I 3 CHEM 1013, General Chemistry I 3

ENGR 1402, Concepts of Engineering 2 ENG 1013, Composition II 3

MATH 2204, Calculus I 4 ENGR 1412, Software Applications for Engineers 2

SCOM 1203, Oral Communications 3 MATH 2214, Calculus II 4

PHYS 2034, University Physics I 4

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# Sophomore Year

**Fall Semester Hrs Spring Semester Hrs**

CE 2202, C.E. Presentations 2

CE 2223, Plane Surveying 3 CE 3213, Structural Analysis I 3

CE 3263, Intro to Environmental 3 ENGR 2401, Applied Engineering Statistics 1

ENGR 2403, Statics 3 ENGR 2411, Lab. for Mechanics of Materials 1

MATH 3254, Calculus III 4 ENGR 2413, Mechanics of Materials 3

+ Science Elective 4 CE 3471, Lab. for Fluid Mechanics 1

CE 3473, Fluid Mechanics 3

MATH 4403, Differential Equations 3

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# Junior Year

**Fall Semester Hrs Spring Semester Hrs**

CE 3223, C.E. Materials 3CE 3253, Engineering Hydrology 3

\*CE 3233, Structural Analysis II OR CE 4251, Lab. for Soil Mechanics 1

++Humanities Elective 3 CE 4253, Soil Mechanics 3

ENGR 3433, Engineering Economics 3 ENGR 2421, Lab. for Electric Circuits I 1

ENGR 3443, Engineering Thermo. I 3 ENGR 2423, Electric Circuits I 3

ENGR 4453, Num. Meth. for Engineers 3 ENGR 3423, Dynamics 3

++Social Science Elective 3

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# 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 4283, Structural Steel Design 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

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Total \_\_\_\_\_\_

128

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

++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 1004or PHYS 2044 University Physics II ***2017/2018***

# General Education Curriculum for Engineering Baccalaureate Degrees

Semester Hours

Communication 9

ENG 1003, Freshman English I ENG 1013, Freshman English II SCOM 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, Intro. to the Lit. of the Western World I

THEA 2503, Fine Arts – Theater ENG 2013, Intro. to the Lit. of the Western World II

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

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**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:**

MATH 4403, Differential Equations 3

Science Elective 4

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**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 2413 and ENGR 2411, Mechanics of Materials and Lab. for Mechanics of Materials 4

ENGR 2423 and ENGR 2421, Electric Circuits I and Laboratory for Electric Circuits 4

ENGR 3423, Dynamics 3

ENGR 3433, Engineering Economics 3

ENGR 3443, Engineering Thermodynamics I 3

ENGR 4401 Senior Engineering Seminar……………………………….…………………………………………………………...1

ENGR 4453, Numerical Methods for Engineers 3

ENGR 4463, Senior Design I 3

ENGR 4482, Senior Design II………………………………………………………………………………………………………….2

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**Civil Engineering Major Courses**:

BIOL 1063, People and the Environment………………………………………………………………………………………….…3

ENGR 3473, Fluid Mechanics 3

ENGR 3471, Laboratory for Fluid Mechanics 1

CE 2202, Civil Engineering Presentations 2

CE 2223, Plane Surveying 3

CE 3213, Structural Analysis I 3

CE 3233, Structural Analysis II or CE 4263 Water and Waste Treatment 3

CE 3223, Civil Engineering Materials 3

CE 3263, Introduction to Environmental Engineering 3

CE 3253, Engineering Hydrology 3

CE 3273, Water and Waste Systems 3

CE 4203, Transportation Engineering I……………………………………………………………………………………………….3

CE 4223, Transportation Engineering II ..3

CE 4243, Reinforced Concrete Design 3

CE 4253, Soil Mechanics 3

CE 4251, Laboratory for Soil Mechanics 1

CE 4283, Structural Steel Design 3

CE 4233, Foundation Engineering 3

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