

Date Submitted: 02/21/19 9:55 am

## Viewing: **CVEGBS : Civil Engineering, Bachelor of Science in Civil Engineering**

Last approved: 06/12/17 1:58 pm

Last edit: 03/01/19 8:39 am

Changes proposed by: rdw

Catalog Pages Using  
this Program

[Civil Engineering B.S.C.E.](#)

[Civil Engineering \(CVEG\)](#)

Submitter: User ID: crsleaf1 Phone:  
575-6731

Program Status Active

Academic Level Undergraduate

Type of proposal Major/Field of Study

Select a reason for this modification

Making Minor Changes to an Existing Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding/changing Focused Study or Track)

Are you adding a concentration?

No

Are you adding a track?

No

Are you adding a focused study?

No

Effective Catalog Year Fall 2019

College/School Code

College of Engineering(ENGR)

### In Workflow

1. ENGR Dean Initial
2. Director of Program Assessment and Review
3. Registrar Initial
4. Institutional Research
5. CVEG Chair
6. ENGR Curriculum Committee
7. ENGR Faculty
8. ARSC Dean
9. ENGR Dean
10. Global Campus
11. Provost Review
12. University Course and Program Committee
13. Faculty Senate
14. Provost Final
15. ADE Licensure Approval
16. Provost's Office-- Notification of Approval
17. Registrar Final
18. Catalog Editor Final

### Approval Path

1. 02/21/19 9:11 am  
Norman Dennis (ndennis): Rollback to Initiator
2. 02/21/19 10:21 am  
Norman Dennis (ndennis): Approved

## Department Code

Department of Civil Engineering(CVEG)

## Program Code

CVEGBS

## Degree

Bachelor of Science in Civil Engineering

## CIP Code

for ENGR Dean

Initial

3. 02/21/19 11:49 am  
Alice Griffin  
(agriffin): Approved  
for Director of  
Program  
Assessment and  
Review
4. 02/21/19 2:29 pm  
Lisa Kulczak  
(lkulcza): Approved  
for Registrar Initial
5. 02/21/19 4:46 pm  
Gary Gunderman  
(ggunderm):  
Approved for  
Institutional  
Research
6. 02/21/19 8:14 pm  
Micah Hale (micah):  
Approved for CVEG  
Chair
7. 02/22/19 1:09 pm  
Manuel Rossetti  
(rossetti): Approved  
for ENGR  
Curriculum  
Committee
8. 02/24/19 10:25 pm  
Norman Dennis  
(ndennis): Approved  
for ENGR Faculty
9. 02/25/19 7:09 am  
Jeannine Durdik  
(jdurdik): Approved  
for ARSC Dean
10. 02/25/19 7:48 am  
Norman Dennis

- (ndennis): Approved  
for ENGR Dean
11. 02/25/19 11:41 am  
Leigh Ann Marshall  
(lamarsh): Approved  
for Global Campus
12. 02/27/19 6:10 pm  
Terry Martin  
(tmartin): Approved  
for Provost Review
13. 03/18/19 10:56 am  
Alice Griffin  
(agriffin): Approved  
for University  
Course and Program  
Committee

## History

1. Aug 15, 2014 by  
Leepfrog  
Administrator  
(clhelp)
2. Mar 23, 2015 by  
Charlie Alison  
(calison)
3. Aug 18, 2015 by Lisa  
Kulczak (lkulcza)
4. May 9, 2016 by  
Kevin Hall (kdhall)
5. Jul 27, 2016 by  
Charlie Alison  
(calison)
6. Apr 24, 2017 by  
Kevin Hall (kdhall)
7. Jun 12, 2017 by  
Charlie Alison  
(calison)

14.0801 - Civil Engineering, General.

## Program Title

Civil Engineering, Bachelor of Science in Civil Engineering

## Program Delivery

## Method

On Campus

Is this program interdisciplinary?

**No** ~~Yes~~

Does this proposal impact any courses from another College/School?

**Yes**

## College(s)/School(s)

College/School Name

**Fulbright College of Arts and Sciences(ARSC)**

What are the total  
hours needed to  
complete the  
program?

**128**

## Program Requirements and Description

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## Requirements

### Elective Courses

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Students must select three 3-hour civil engineering elective courses in conference with their adviser. Normally, the civil engineering courses are selected from among the 4000-level elective CVEG courses. Exceptional students may be allowed to choose from the 5000 (graduate-level) course series.

Students must also choose one elective course in science, engineering, technology, or math (STEM) field.

Humanities and social science electives are selected from courses approved by the university which satisfy the University Core general education requirement. Lists of approved electives are on file in the department office.

#### Civil Engineering Design Electives

Students must complete two of the following four CVEG design project electives: [CVEG 4812](#) Environmental Design Project, [CVEG 4822](#) Geotechnical Design Project, [CVEG 4832](#) Structural Design Project, and [CVEG 4842](#) Transportation Design Project. Each design project elective is associated with a specific design-oriented course. The associated course must be taken at the same time as the design project elective. The associated courses may be taken alone but the design electives cannot.

#### 8-Semester Plan

# Civil Engineering B.S.C.E.

## Eight-Semester Degree Program

The Civil Engineering B.S.C.E. program is eligible for freshman students who want to participate in an Eight-Semester Degree Program. See the [Eight-Semester Degree Policy](#) for details of the program.

The following section contains the list of courses required for the Bachelor of Science in Civil Engineering degree and a suggested sequence. Not all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites.

See the list of [university core courses](#) available for engineering students.

First Year	Units
	FallSpring
<a href="#">MATH 2554</a> Calculus I (ACTS Equivalency = MATH 2405)	4
<a href="#">PHYS 2054</a> University Physics I (ACTS Equivalency = PHYS 2034)	4
<a href="#">GNEG 1111</a> Introduction to Engineering I	1
<a href="#">CHEM 1103</a> University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)	3
<a href="#">ENGL 1013</a> Composition I (ACTS Equivalency = ENGL 1013)	3
<a href="#">MATH 2564</a> Calculus II (ACTS Equivalency = MATH 2505)	4
<a href="#">GNEG 1121</a> Introduction to Engineering II	1
Freshman Science Elective	4
Freshman Science Elective Lab	0
<a href="#">ENGL 1023</a> Composition II (ACTS Equivalency = ENGL 1023)	3
Select one of the following:	3
<a href="#">PLSC 2003</a> American National Government (ACTS Equivalency = PLSC 2003)	
<a href="#">HIST 2003</a> History of the American People to 1877 (ACTS Equivalency = HIST 2113)	
<a href="#">HIST 2013</a> History of the American People, 1877 to Present (ACTS Equivalency = HIST 2123)	
Year Total:	15 15

Second Year	Units
	FallSpring
<a href="#">MATH 2574</a> Calculus III (ACTS Equivalency = MATH 2603)	4
<del><a href="#">CVEG 2015</a> Fundamentals of Mechanics for Civil Engineers</del>	<del>5 -</del>
<a href="#">CVEG 2013</a> Civil Engineering Mechanics I	3
<a href="#">CVEG 2002</a> Introduction to Civil Engineering Plans and CADD	2
<a href="#">CVEG 2053</a> Surveying Systems	4
& <a href="#">CVEG 2051L</a> Surveying Systems Laboratory	
Fine Arts Elective (from University/State Core list)	3
<a href="#">MATH 2584</a> Elementary Differential Equations	4
<del><a href="#">CVEG 2002</a> Introduction to Civil Engineering Plans and CADD</del>	<del>- 2</del>
<a href="#">CVEG 2023</a> Civil Engineering Mechanics II	3
<a href="#">CVEG 2113</a> Structural Materials	3

<u>INEG 2313</u> Applied Probability and Statistics for Engineers I	3
<u>GEOS 1113</u> General Geology (ACTS Equivalency = GEOL 1114 Lecture)	4
& <u>GEOS 1111L</u> General Geology Laboratory (ACTS Equivalency = GEOL 1114 Lab)	
<del>CVEG 2851 Engineering Professional Practice Issues</del>	<del>- 1</del>
Year Total:	16 17
Third Year	Units
	FallSpring
<u>INEG 2413</u> Engineering Economic Analysis	3
<u>CVEG 3303</u> Structural Analysis	3
<u>CVEG 3213</u> Hydraulics	3
STEM Elective	3
<u>CVEG 3413</u> Transportation Systems Engineering	3
<b><u>CVEG 2851 Engineering Professional Practice Issues</u></b>	<b>1</b>
<u>CVEG 4303</u> Reinforced Concrete Design I	3
<u>CVEG 3243</u> Environmental Engineering	3
<b><u>CVEG 3132</u> Course CVEG 3132 Not Found</b>	<b>3</b>
<b>&amp; <u>CVEG 3131L</u> Soil Mechanics Laboratory</b>	
<u>CVEG 3223</u> Hydrology	3
<del>CVEG 3133 Soil Mechanics</del>	<del>- 3</del>
<del>CVEG 3131L Soil Mechanics Laboratory</del>	<del>- 1</del>
Social Science Elective (from University/State Core list)	3
Year Total:	16 15
Fourth Year	Units
	FallSpring
Civil Engineering Elective*	3
Civil Engineering Design Elective	2
<u>CVEG 4143</u> Foundation Engineering	3
<u>CVEG 4423</u> Transportation Infrastructure	3
<u>CVEG 4890</u> Fundamentals of Engineering Seminar	0
Humanities Elective (from University/State Core List)	3
Social Science Elective (from University/State Core list)	3
<u>CVEG 4513</u> Construction Management	3
Civil Engineering Design Elective	2
<u>CVEG 4243</u> Environmental Engineering Design	3
Civil Engineering Electives*	6
Social Science Elective (from University/State Core List)	3
Year Total:	17 17
Total Units in Sequence:	128

total units in sequence.

\* See the elective list among the program requirements.

### Are Similar Programs available in the area?

No

Estimated Student 260

Demand for Program

Scheduled Program 2021

Review Date

Program Goals and

Objectives

#### Program Goals and Objectives

The objective of the civil engineering program is to produce graduates who are prepared to pursue: (a) careers in the broad field of civil engineering; (b) licensure as a Professional Engineer; (c) advanced education.

Learning Outcomes

#### Learning Outcomes

a) Apply knowledge of mathematics and science to solve engineering problems.

b) Design and conduct experiments, and analyze and evaluate the resulting data.

c) Design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and constructability.

d) Function effectively as a member of a multidisciplinary team.

e) Identify, formulate, and solve engineering problems.

f) Identify key elements of professional ethics; discuss the importance of professional licensure.

g) Organize and deliver effective communications.

h) Explain possible impacts of engineering solutions on the economy, environment, political landscape, and society.

i) Discuss the need for life-long learning, and demonstrate the ability to learn through independent study.

j) Explain the impact of contemporary issues on the identification, formulation, and solution of engineering problems.

k) Apply relevant knowledge, techniques, skills, and modern engineering tools to address engineering problems.

## Description and justification of the request

Description of specific change	Justification for this change
Minor change in course structure i.e. CVEG 2015 was split into CVEG 2013 and CVEG 2023. CVEG 2002 and CVEG 2851 were moved into different semesters. CVEG 3133 was changed to CVEG 3132 to stay below max hours cap of 128	Semester sequence was changed to balance per semester class loads and accommodate minor pre and corequisite requirement changes

## Upload attachments

## Reviewer Comments

**Norman Dennis (ndennis) (02/21/19 9:11 am):** Rollback: per your request

**Alice Griffin (agriffin) (02/21/19 11:40 am):** Entered credit hours for CVEG 3132 in order for program requirements to total correctly.

**Alice Griffin (agriffin) (02/21/19 11:44 am):** Including the co-requisite lab. Department is encouraged to review the third-year spring semester, to assure that information was updated as intended.

**Alice Griffin (agriffin) (02/21/19 11:48 am):** Verified that CVEG 3132 is currently included in the approval workflow in Course Management. Department is encouraged to update the co-requisite from 3133 to 3132 for CVEG 3131L.

**Alice Griffin (agriffin) (03/01/19 8:39 am):** Effective fall 2019 pending successful completion of the approval process.

Key: 495