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

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

Requirements

Elective Courses

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

Second Year	Units	
	Fall	Spring
MATH 2574 Calculus III (ACTS Equivalency = MATH 2603)	4	
~~CVEG 2015 Fundamentals of Mechanics for Civil Engineers~~	~~5~~	-
CVEG 2013 Civil Engineering Mechanics I	**3**	
CVEG 2002 Introduction to Civil Engineering Plans and CADD	**2**	
CVEG 2053 Surveying Systems	4	
& CVEG 2051L Surveying Systems Laboratory		
Fine Arts Elective (from University/State Core list)	3	
MATH 2584 Elementary Differential Equations		4
~~CVEG 2002 Introduction to Civil Engineering Plans and CADD~~	-	~~2~~
CVEG 2023 Civil Engineering Mechanics II		**3**
CVEG 2113 Structural Materials		3
INEG 2313 Applied Probability and Statistics for Engineers I		3
GEOS 1113 General Geology (ACTS Equivalency = GEOL 1114 Lecture)		4
& GEOS 1111L General Geology Laboratory (ACTS Equivalency = GEOL 1114 Lab)		
~~CVEG 2851 Engineering Professional Practice Issues~~	-	~~1~~
Year Total:	16	17

Third Year	Units Fall	Spring
INEG 2413 Engineering Economic Analysis	3	
CVEG 3303 Structural Analysis	3	
CVEG 3213 Hydraulics	3	
STEM Elective	3	
CVEG 3413 Transportation Systems Engineering	3	
CVEG 2851 Engineering Professional Practice Issues	**1**	
CVEG 4303 Reinforced Concrete Design I		3
CVEG 3243 Environmental Engineering		3
CVEG 3132 Course CVEG 3132 Not Found & CVEG 3131L Soil Mechanics Laboratory		**3**
CVEG 3223 Hydrology		3
~~CVEG 3133 Soil Mechanics~~	-	~~3~~
~~CVEG 3131L Soil Mechanics Laboratory~~	-	~~1~~
Social Science Elective (from University/State Core list)		3
Year Total:	16	15

Fourth Year	Units Fall	Spring
Civil Engineering Elective*	3	
Civil Engineering Design Elective	2	
CVEG 4143 Foundation Engineering	3	
CVEG 4423 Transportation Infrastructure	3	
CVEG 4890 Fundamentals of Engineering Seminar	0	
Humanities Elective (from University/State Core List)	3	
Social Science Elective (from University/State Core list)	3	
CVEG 4513 Construction Management		3
Civil Engineering Design Elective		2
CVEG 4243 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

* See the elective list among the program requirements.

Are Similar Programs available in the area?

No

Estimated Student Demand for Program	260
Scheduled Program Review Date	2021

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

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