TO: The Faculty of the College of Engineering

FROM: Lyles School of Civil Engineering of the College of Engineering

RE: Changes in degree requirements for the Bachelor of Science in Civil Engineering

The Faculty of the Lyles School of Civil Engineering has approved the following changes in the curriculum for the Bachelor of Science degree in Civil Engineering for students entering Fall 2021 or later. This action is now submitted to the Engineering Faculty with a recommendation for approval.

Summary of changes:

- CE 33500 Civil Engineering Materials (4 cr.) is replacing two formerly required courses, CE 23100 Engineering Materials I (3 cr.) and CE 33100 Engineering Materials II (3 cr.).
- CE 21101 Thermal and Energy Sciences in Civil Engineering (3 cr.) is replacing the former requirement of ME 20000 Thermodynamics I (3 cr.).

Reason: A comprehensive undergraduate curriculum review recognized the need to decrease credit hours in the BSCE curriculum and to ensure that course degree requirements were relevant to all Civil Engineering areas. A new course, CE 33500 Civil Engineering Materials, is the result of consolidating the topics covered in CE 23100 Engineering Materials I and CE 33100 Engineering Materials II. The new course CE 21101 Thermal and Energy Sciences in Civil Engineering includes applications of thermal science and energy fundamentals to civil engineering topics. The combined changes in degree requirements reduce the total credit hour requirements for the Bachelor of Science degree in Civil Engineering from 132 to 130.

Rao S. Govindaraju
Bowen Engineering Head and Christopher B. and Susan S. Burke Professor
Lyles School of Civil Engineering

PURDUE UNIVERSITY

Civil Engineering
College of Engineering

Code-BSCE
130 Credits for Graduation
Students must have a graduation index of 2.0 and a CE index of 2.0

Civil Engineering Major Courses (https://engineering.purdue.edu/CE/Academics/Undergraduate/PlanStudy)

Required CE Courses [Grade of C- or better required] (56 credits)

_____ (2) CGT 16400 Graphics *for Civil Engineering and Construction*
_____ (4) MA 26100 *Multivariate Calculus*
_____ (4) CE 20300 *Principles and Practices Of Geomatics*
_____ (2) CE 29202 *Contemporary Issues in Civil Engineering*
_____ (3) PHYS 24100 *Electricity and Optics*
_____ (3) CE 29700 *Basic Mechanics I (Statics)*
_____ (3) MA 26500 *Linear Algebra*
_____ (3) CE 21101 *Thermal and Energy Sciences in CE*
_____ (4) CE 27000 *Introductory Structural Mechanics*
_____ (3) CE 29800 *Basic Mechanics II (Dynamics)*
_____ (3) MA 26600 *Ordinary Differential Equations*
_____ (4) CE 33500 *Civil Engineering Materials*
_____ (3) CE 34000 *Hydraulics*
_____ (1) CE 34300 *Elementary Hydraulics Lab*
_____ (3) CE 38300 *Geotechnical Engineering I*
_____ (3) STAT 51100 *Statistical Methods*
_____ (2) CE 39201 *Technical Communications in Civil Engineering*
_____ (3) CE 39800 *Introduction to Civil Engineering Systems Design*
_____ (3) Basic Science Selective
_____ (3) CE 49800 *Civil Engineering Design Project*

CE Technical Electives (30 credits)
https://engineering.purdue.edu/CE/Academics/Undergraduate/Current/Technical-Elective-Policy-6-28-12.pdf

_____ (3) Technical Elective I
_____ (3) Technical Elective II
_____ (3) Technical Elective III
_____ (3) Technical Elective IV
_____ (3) Technical Elective V
_____ (3) Technical Elective VI
_____ (3) Technical Elective VII
_____ (3) Technical Elective VIII
_____ (3) Technical Elective IX
_____ (3) Technical Elective X

Other Departmental / Program Course Requirements (29 - 33 credits)

_____ (4/5) MA 16500 / 16100 *Analytic Geometry and Calculus I* (satisfies FYE requirement)
_____ (4/5) MA 16600 / 16200 *Analytic Geometry and Calculus II* (satisfies FYE requirement)
_____ (4) CHM 11500 *General Chemistry* (satisfies FYE requirement)
_____ (4) PHYS 17200 *Modern Mechanics* (satisfies FYE requirement)
_____ (3/4) *Written Communication Core* (satisfies FYE requirement)
_____ (3) *Oral Communication Core* (satisfies FYE requirement)
_____ (2) ENGR 13100 *Transforming Ideas to Innovation I* (satisfies FYE requirement)
_____ (2) ENGR 13200 *Transforming Ideas to Innovation II* (satisfies FYE requirement)
_____ (3/4) CS 15900 *Prog Appl for Engrs* / CHM 11600 *General Chemistry* (satisfies FYE Science Selective requirement)

General Education Electives (15 credits, plus 1 cr. from CE29202 and 2 cr. CE39201)
https://engineering.purdue.edu/CE/Academics/Undergraduate/Current/General-Education-Electives_3-8-13.pdf

_____ (3) General Education Elective I
_____ (3) General Education Elective II
_____ (3) General Education Elective III
_____ (3) General Education Elective IV
_____ (3) General Education Elective V

University Foundational Core Requirements

Human Cultures - Humanities	Gen Ed I	Science, Tech & Society Selective	Basic Science Select
Human Cultures - Behavioral/Social Science	Gen Ed II	Written Communication	F. Core Select
Information Literacy	F. Core Select	Oral Communication	F. Core Select
Science Selective	CHM 11500	Quantitative Reasoning	MA 16500
Science Selective	PHYS 17200		

Revised 11/12/20 (Effective Fall 2021)

Civil Engineering

https://engineering.purdue.edu/CE/Academics/Undergraduate/PlanStudy

Suggested Arrangement of Courses

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
4	MA 16500		4	MA 16600	MA 16500
4	CHM 11500	MA 16500	4	PHYS 17200	MA 16500
3	Written Communication Core		3	FYE Science Selective	
2	ENGR 13100		2	ENGR 13200	ENGR 13100
3	General Education Elective I		3	Oral Communication Core	
16			**16**		

Credits	Fall 2nd Year	Pre[Co]requisite	Credits	Spring 2nd Year	Pre[Co]requisite
4	MA 26100	MA 16600	3	MA 26500	MA 16600
3	PHYS 24100	PHYS 17200	3	CE 21101	CHM 11500,[MA 26100]
3	CE 29700	PHYS 17200, [MA 26100]	4	CE 27000	CE 29700, MA 26100
4	CE 20300	[CGT 16400]	3	CE 29800	CE 29700, MA 26100
2	CGT 16400		3	General Education Elective II	
2	CE 29202	Year 2 or later			
18			**16**		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
3	MA 26600	MA 26100	3	STAT 51100	MA 16600
4	CE 33500	CE 27000	3	CE 39800	MA 26100
3	CE 34000	CE 29800	2	CE 39201	CE 29202
1	CE 34300	CE 34000	3	Technical Elective II (Breadth)	
3	Technical Elective I (Breadth)		3	Technical Elective III (Design)	
3	General Education Elective III		3	Technical Elective IV	
17			**17**		

Credits	Fall 4th Year	Pre[Co]requisite	Credits	Spring 4th Year	Prerequisite
3	Basic Science Selective		3	CE 49800	CE 39800
3	Technical Elective V (Breadth)		3	Technical Elective VIII (Breadth)	
3	Technical Elective VI (Design)		3	Technical Elective IX (Design)	
3	Technical Elective VII		3	Technical Elective X	
3	General Education Elective IV		3	General Education Elective V	
15			**15**		

130 semester credits required for Bachelor of Science in Civil Engineering degree.
Students must have a graduation index of 2.0 and a CE index (CE courses only) of 2.0.

The student is ultimately responsible for knowing and completing all degree requirements.
MyPurduePlan is a knowledge source for specific requirements and completion.
