

To: The Engineering Faculty  
 From: Division of Construction Engineering and Management  
 Re: CEM BSCNE Plan of Study

The Division of Construction Engineering and Management has approved the following changes in the plan of study for the B.S. CNE curriculum. The revised plan of study reduces the total number of credit hours required from 130 to 126. This is accomplished by consolidating some material from other courses into existing courses. It also increases the number of technical electives available to students.


**Reason:** The CEM faculty recognize the need to provide opportunities for students to take more technical electives while requiring a course in temporary structures. Previously, the temporary structures course was a technical elective. Additionally, the capstone course, delivered in one semester, has been divided into a two-semester sequence.

The revised plan of study will become effective fall 2020 for all entering freshmen. New students enrolling in Construction Engineering will have the option to follow the new POS while students currently enrolled in Construction Engineering will utilize a temporary solution which addresses the current POS while incorporating the best features of the revised POS.

**Supplemental Information:**

- 1) Plan of Study comparison attached
- 2) Summary of changes:

Proposed change narrative	Credit hours prior to change	Number of hours per change	Credit hours after change
a. Add CEM 45500 – Temporary Structures as a required course	130	+3	133
b. Remove CEM 30200 – Practical Applications for Construction Engineering, material is incorporated into other CEM required courses	133	-3	130
c. Remove MA 26600 Ordinary Differential Equations and MA 26500 – Linear Algebra; replace with MA 26200 – Linear Algebra and Differential Equations	130	-6+4	128
d. Revised CEM 42500 – Construction Engineering Capstone (EFD 10-18)	128	+1	129
e. Apply MGMT 20000 & MGMT 30400 (Core Engineering Courses) as General Education credit	129	-6	123
f. Replace CEM 32100 and CE 23100 (no longer offered) with CE 33100	123	0	123
g. Include CEM 18000 (EFD 15-18) and CEM 28000 (revised, EFD 17-18)	123	0	123
h. Add a technical elective course (result is 3 total required - Core Engineering Courses)	123	+3	126

  
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 Makarand Hastak, Professor and Head  
 Division of Construction Engineering & Mgmt.

<b>Present</b>	<b>Total Credit Hours</b>	<b>130</b>	<b>Proposed</b>	<b>Total Credit Hours</b>	<b>126</b>
<i>Courses</i>		<i>Credit Hours</i>	<i>Courses</i>		<i>Credit Hours</i>
<b>Mathematics and Basic Sciences</b>			<b>Mathematics and Basic Sciences</b>		
Calculus: MA16500, 16600, 26100, 26500, 26600		<b>18</b>	Calculus: MA16500, 16600, 26100, 26200		<b>16</b>
Chemistry: CMH 11500		<b>4</b>	Chemistry: CHM 11500		<b>4</b>
Physics: PHYS 17200, 24100		<b>7</b>	PHYS 17200, 24100		<b>7</b>
Statistics: STAT 51100		<b>3</b>	Statistics: STAT 51100		<b>3</b>
Science Electives:		<b>3</b>	Science Electives:		<b>3</b>
<b>Engineering Tools and Skills</b>			<b>Engineering Tools and Skills</b>		
ENGR 13100, 13200, CGT 16400		<b>6</b>	ENGR 13100, 13200, CGT 16400		<b>6</b>
<b>Professional Development</b>			<b>Professional Development</b>		
CEM 19100*, 29100*, 39100*, 32400, 48500		<b>6</b>	CEM 19100*, 29100*, 39100*, 32400, 48500		<b>6</b>
<b>General Education</b>			<b>General Education</b>		
Students must satisfy the requirements of the College of Engineering's General Education Program. Selections must be chosen from approved lists in accordance with counsel from an advisor and include courses in oral and written communication and management (CEM 28000 & 38000). The remaining credit hours needed to attain the minimum of 24 should be chosen carefully.		<b>24</b>	Students must satisfy the requirements of the College of Engineering's General Education Program. Selections must be chosen from approved lists in accordance with counsel from an advisor and include courses in oral and written communication and management** (CEM 28000 & 38000). The remaining credit hours needed to attain the minimum of 24 should be chosen carefully.		<b>24**</b>
<b>Core Engineering Courses</b>			<b>Core Engineering Courses</b>		
CE 20300, 23100, 27000, 29700, 29800, 34000/34300, 37100, 38300, 47300; ME 20000; CEM 20100, 30100, 32100, 30200, 42500; and two technical elective courses in CEM; MGMT 20000 & 30400.		<b>59</b>	CE 20300, 33100, 27000, 29700, 29800, 34000/34300, 37100, 38300, 47300; ME 20000, CEM 20100, 30100, 42501 & 42502†, 45500; and three technical elective courses in CEM; MGMT 20000 & 30400.		<b>63**</b>

\* 19100, 29100, 39100 are zero credit hour internships required by the program.

\*\* MGMT 20000 and MGMT 30400 also count as General Education per EFD 42-14.

† 42500 was replaced by 42501 & 42502 the CNE Capstone course, taken across two semesters