

**Construction Engineering Major Courses**

**Required CEM Courses (80 credits)**

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|---|--|
| _____ (3) COM 11400 <i>Fundamentals of Speech Communication</i>                               | (3) CE 29700 <i>Basic Mechanics I (Statics)</i>              |
| _____ (4) CE 20300 <i>Principles and Practices Of Geomatics</i>                               | (4) MA 26100 <i>Multivariate Calculus</i>                    |
| _____ (3) CEM 20100 <i>Life Cycle Engineering and Management of Constructed Facilities</i>    |  |
| _____ (2) CGT 16400 <i>Graphics for Civil Engineering and Construction</i>                    | (3) MA 26500 <i>Linear Algebra</i>                           |
| _____ (4) CE 27000 <i>Introductory Structural Mechanics</i>                                   | (3) MGMT 20000 <i>Introductory Accounting</i>                |
| _____ (3) CE 23100 <i>Engineering Materials I</i>   | (1) CEM 321 <i>CEM Materials Lab</i>                         |
| _____ (3) PHYS 24100 <i>Electricity and Optics</i>  | (3) CE 29800 <i>Basic Mechanics II (Dynamics)</i>            |
| _____ (3) MA 26600 <i>Ordinary Differential Equations</i>                                     | (3) CEM 30200 <i>Practical Applications for Constr. Eng.</i> |
| _____ (3) STAT 51100 <i>Statistical Methods</i>   | (3) CEM 32400 <i>Human Resource Mgmt in Constr.</i>          |
| _____ (3) CEM 30100 <i>Project Control and Life Cycle Execution of Constructed Facilities</i> |  |
| _____ (3) ME 20000 <i>Thermodynamics I</i>  | (3) CE 38300 <i>Geotechnical Engineering I</i>               |
| _____ (3) CE 34000 <i>Hydraulics</i>  | (1) CE 34300 <i>Elementary Hydraulics Lab</i>                |
| _____ (3) CE 37100 <i>Structural Analysis I</i>   | (4) CE 47300 <i>Reinforced Concrete Design</i>               |
| _____ (3) CEM 48500 <i>Legal Aspects Construction Engineering</i>                             | (0) CEM 19100 <i>Construction Internship I</i>               |
| _____ (3) CEM 42500 <i>Construction Practice Project</i>                                      | (0) CEM 29100 <i>Construction Internship I</i>               |
| _____ (3) CE 52100 <i>Construction Business Management</i>                                    | (0) CEM 39100 <i>Construction Internship I</i>               |

**CEM technical Electives - (6 credits)**

- \_\_\_\_\_ (3) Technical Elective I  
 \_\_\_\_\_ (3) Technical Elective II

**Other Departmental /Program Course Requirements (26-28 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) ENGL 10800 *First-Year Composition* (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) Science Selective (satisfies FYE requirement)

**General Education Electives (18 credits)**

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|--|---|
| _____ (3) General Education Elective I   | _____ (3) General Education Elective IV                         |
| _____ (3) General Education Elective II  | _____ (3) General Education Elective V                          |
| _____ (3) General Education Elective III | _____ (3) General Education Elective VI (CEM 28000 & CEM 38000) |

**University Foundational Core Requirements (<http://www.purdue.edu/provost/initiatives/curriculum/course.html>)**

Human Cultures – Humanities (H)	<u>Gen Ed I</u>	Science, Technology & Society (STS)	<u>Gen Ed III</u>
Human Cultures – Behavioral/Social Science (BSS)	<u>Gen Ed II</u>	Written Communication (WC)	<u>ENGL 10800</u>
Information Literacy (IL)	<u>ENGL 10800</u>	Oral Communication (OC)	<u>COM 11400</u>
Science (S)	<u>CHM 11500</u>	Quantitative Reasoning (QR)	<u>MA 16500</u>

## Construction Engineering

<https://engineering.purdue.edu/CEM/Academics>

### Suggested Arrangement of Courses

Credits	Fall 1 <sup>st</sup> Year	Prerequisite	Credits	Spring 1 <sup>st</sup> Year	Prerequisite
4	MA 16500		4	MA 16600	MA 16500
4	CHM 11500		4	PHYS 17200	MA 16500
3	ENGL 10800		3	Science Selective	
2	ENGR 13100		2	ENGR 13200	ENGR 13100
			3	COM 11400	
				Summer: CEM 19100 – Summer Internship I	
<b>13</b>			<b>16</b>		
Credits	Fall 2 <sup>nd</sup> Year	Prerequisite	Credits	Spring 2 <sup>nd</sup> Year	Prerequisite
4	MA 26100	MA 16600	3	MA 26600	MA 26100
3	CEM 20100		3	CE 23100	CE 29700, CE 27000
3	CE 29700	MA 26100, PHYS 17200	4	CE 27000	CE 29700, CE 23100
4	CE 20300	CGT 16400	2	CEM 28000	CEM 19100
2	CGT 16400		3	MGMT 20000	
			3	PHYS 24100	PHYS 17200
			(+3)	Summer: CEM 29100 – Summer Internship II & (3) General Education Elective I	
<b>16</b>			<b>18 (+3)</b>		
Credits	Fall 3 <sup>rd</sup> Year	Prerequisite	Credits	Spring 3 <sup>rd</sup> Year	Prerequisite
3	MA 26500	MA 16600	3	Technical Elective I	
3	CE 29800	CE 29700	3	CE 34000	CE 29800
1	CE 38000	CEM 28000	1	CE 34300	CE 34000
3	CEM 30100	CEM 20100	3	CE 37100	CE 27000
3	STAT 51100	MA 16600	3	CE 38300	CE 34000
1	CEM 32100 CEM Materials Lab	CE 23100	3	CEM 30200	CEM 30100
			(+3)	Summer: CEM 39100 – Summer Internship III & (3) General Education Elective II	
<b>14</b>			<b>16 (+3)</b>		
Credits	Fall 4 <sup>th</sup> Year	Prerequisite	Credits	Spring 4 <sup>th</sup> Year	Prerequisite
3	Technical Elective II		3	CE 52100 or MGMT 30400	MGMT 20000/STAT 51100
4	CE 47300	CE 37100	3	ME 20000	MA 26100
3	CEM 42500	CEM 30200/CEM 29100	3	CEM 48500	
3	CEM 32400	CEM 29100/CEM 30100	3	General Education Elective IV	
3	General Education Elective III		3	General Education Elective V	
<b>16</b>			<b>15</b>		

**130 semester credits required for Bachelor of Science in Construction Engineering degree.  
Students must have a graduation index 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.**