# REQUIREMENTS FOR THE BACHELOR OF SCIENCE
## GALLOGLY COLLEGE OF ENGINEERING
## THE UNIVERSITY OF OKLAHOMA

### GENERAL EDUCATION AND COLLEGE REQUIREMENTS

Courses designated as Core I, II, III, IV, or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list, including at least one upper-division Gen. Ed. course outside of the student’s major. Courses graded P/NP will not apply.

A grade of C or better is required in each course in the curriculum, including all prerequisite courses.

### UNIVERSITY-WIDE GENERAL EDUCATION (MINIMUM 40 HOURS) AND COLLEGE REQUIREMENTS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>ENGL 1113</td>
<td>Principles of English Composition</td>
<td>3</td>
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<tr>
<td>ENGL 1213</td>
<td>Principles of English Composition or ENPL 1213</td>
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<tr>
<td>Language (0-10 hours in the same language)</td>
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<tr>
<td>Core Area I: Symbolic and Oral Communication</td>
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<tr>
<td>ENGR 1914</td>
<td>Differential and Integral Calculus I (Core I) 1,2</td>
<td>4</td>
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<tr>
<td>Core Area II: Natural Science (including one laboratory)</td>
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<tr>
<td>PHYS 2514</td>
<td>General Physics for Engineering and Science Majors (Core II) 3</td>
<td>4</td>
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<tr>
<td>CHEM 1315</td>
<td>General Chemistry (Core II-Lab) 2</td>
<td>5</td>
</tr>
<tr>
<td>or CHEM 1335</td>
<td>General Chemistry I: Signature Course</td>
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</tr>
<tr>
<td>Core Area III: Social Science</td>
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<td></td>
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<tr>
<td>PSC 1113</td>
<td>American Federal Government</td>
<td>3</td>
</tr>
<tr>
<td>Choose one course 3</td>
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<tr>
<td>Core Area IV: Arts &amp; Humanities</td>
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<tr>
<td>Artistic Forms</td>
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<td>Choose one course 3</td>
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</tr>
<tr>
<td>Western Culture</td>
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</tr>
<tr>
<td>HIST 1483</td>
<td>United States to 1865</td>
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</tr>
<tr>
<td>or HIST 1493</td>
<td>United States, 1865 to the Present</td>
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<tr>
<td>HSTM 3333</td>
<td>Technology and Society in World History (or approved substitute Core IV-Western Culture) 3</td>
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<tr>
<td>World Culture</td>
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<td>ANTH 4623</td>
<td>Approaches to Cross-Cultural Human Problems (or approved substitute Core IV-World Culture) 3</td>
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<td>Core Area V: First-Year Experience</td>
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<td>Total Credit Hours</td>
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1. MATH 1823, MATH 2423, MATH 2433, and MATH 2443 can be substituted for MATH 1914, MATH 2924, and MATH 2934.
2. Major support requirements that also satisfy University General Education requirements.
3. To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.

### FREE ELECTIVES

Electives to bring total applicable hours to the minimum total required for the degree including a minimum of 40 upper-division hours.

### MAJOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEES 1000</td>
<td>CEES Seminar (a minimum of four semesters required)</td>
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<tr>
<td>CEES 1111</td>
<td>Exploring CEES</td>
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<tr>
<td>CEES 2113</td>
<td>Statics</td>
<td>3</td>
</tr>
<tr>
<td>CEES 2153</td>
<td>Mechanics of Materials</td>
<td>3</td>
</tr>
<tr>
<td>CEES 2213</td>
<td>CADD Fundamentals</td>
<td>3</td>
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<tr>
<td>CEES 2223</td>
<td>Fluid Mechanics</td>
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<td>CEES 3213</td>
<td>Water Resources Engineering</td>
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<td>CEES 3243</td>
<td>Water and Wastewater Treatment Design</td>
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<td>CEES 3263</td>
<td>Introduction to Dynamics for Architectural and Civil Engineers</td>
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<tr>
<td>CEES 3361</td>
<td>Soil Mechanics Laboratory</td>
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<td>CEES 3363</td>
<td>Soil Mechanics</td>
<td>3</td>
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<tr>
<td>CEES 3403</td>
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<tr>
<td>CEES 3413</td>
<td>Structural Analysis I</td>
<td>3</td>
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<tr>
<td>CEES 3663</td>
<td>Structural Design - Steel I (OR Professional Elective) 1,2</td>
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<td>Structural Design - Concrete I (OR Professional Elective) 1,2</td>
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<td>Transportation Engineering</td>
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<td>Statistics and Probability</td>
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<td>Geomatics Engineering</td>
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<tr>
<td>CEES 4901</td>
<td>Introduction to CE Capstone</td>
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<tr>
<td>CEES 4903</td>
<td>Civil Engineering Capstone</td>
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<td>CEES 4951</td>
<td>Contemporary Topics in Professional Practice</td>
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### MAJOR SUPPORT REQUIREMENTS

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<td>MATH 2934</td>
<td>Differential and Integral Calculus III</td>
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<td>MATH 3113</td>
<td>Introduction to Ordinary Differential Equations</td>
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<tr>
<td>CHEM 1415</td>
<td>General Chemistry (Continued)</td>
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<td>or CHEM 1435</td>
<td>General Chemistry II: Signature Course</td>
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<td>GEOL 1114</td>
<td>Physical Geology for Science and Engineering Majors (or Basic Science, Core II-Lab)</td>
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<tr>
<td>PHYS 2524</td>
<td>General Physics for Engineering and Science Majors</td>
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### Professional Electives

Choose any two 3000-level or higher course in CEES (one three-hour professional elective can be taken outside CEES with advisor approval).

### Additional College Requirements

<table>
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<tr>
<th>Code</th>
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<th>Credit Hours</th>
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<tr>
<td>ENGR 1410</td>
<td>Freshman Engineering Orientation 1</td>
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<td>ENGR 1411</td>
<td>Pathways to Engineering Thinking 1</td>
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<td>ENGR 2002</td>
<td>Professional Development</td>
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<tr>
<td>ENGR 3401</td>
<td>Engineering Economics</td>
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<tr>
<td>Total Credit Hours</td>
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1. Engineering transfer students may take ENGR 3410 in place of ENGR 1410 and ENGR 3511 in place of ENGR 1411.
More information in the catalog: (http://ou-public.coursera.org/gallop-engineering/
civil-engineering-environmental-science/civil-engineering-bachelor-science/).

Requirements for the Bachelor of Science
Bachelor of Science in Civil Engineering accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Civil and Similarly Named Program Criteria.

In order to progress in your curriculum in the Gallogly College of Engineering, and as a specific graduation requirement, a grade of C or better is required in each course in the curriculum, including all prerequisite courses.

Two college-level courses in a single world language are required; this may be satisfied by successful completion of 2 years in a single world language in high school. Students who must take language at the University will have an additional 6-10 hours of coursework.

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**SUGGESTED SEMESTER PLAN OF STUDY**

**Bachelor of Science in Civil Engineering**

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.

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**Table: Suggested Semester Plan of Study**

<table>
<thead>
<tr>
<th>Year</th>
<th>FIRST SEMESTER</th>
<th>Hours</th>
<th>SECOND SEMESTER</th>
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<td>Principles of English Composition (Core I)</td>
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<td>General Chemistry (Core II-Lab) ^1</td>
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<td>MATH 1914</td>
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<td>MATH 2924</td>
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<td>Differential and Integral Calculus I (Core I) ^2</td>
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<td>Approved Elective: First-Year Experience (Core V) ^7</td>
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**FRESHMAN**

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<td>CEES Seminar ^1</td>
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<td>Professional Development</td>
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<td>Approved Elective</td>
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<td>United States to 1865 (Core IV ) or United States, 1865 to the Present</td>
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**SOPHOMORE**

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<td>CEES Seminar ^4</td>
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<td>CEES 3663</td>
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<td>Technology and Society in World History (Core IV, Western Culture) (or approved substitute)</td>
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<td>CEES 3883</td>
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<td>Statistics and Probability</td>
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<td>CEES 3673</td>
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<td>Structural Design - Concrete ^1 ^5</td>
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<td>American Federal Government (Core III)</td>
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<td>CEES 4453</td>
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<td>Engineering Economics</td>
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</table>

**CREDIT HOURS**

|            | 15     | 15     |

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1. CHEM 1315 and CHEM 1415 can be substituted with CHEM 1335 (Fall only) and CHEM 1435 (Spring only), respectively.
2. MATH 1823, MATH 2423, MATH 2433, and MATH 2443 sequence can be substituted for MATH 1914, MATH 2924, and MATH 2934.
3. Engineering transfer students may take ENGR 3410 in place of ENGR 1410 and ENGR 3511 in place of ENGR 1411.
4. Students must complete a minimum of four semesters of CEES 1000.
5. Students must take at least CEES 3663 or CEES 3673. Students may take both courses if desired. Students interested in pursuing a graduate degree are encouraged to complete both courses.
6. Professional electives can be chosen from any 3000-level or higher course in CEES. One three-hour professional elective can be taken outside CEES with advisor approval.
7. To be chosen from the University-Wide General Education Approved Course List. Three of these hours must be upper-division (3000-4000). See list in the Class Schedule.

Courses designated as Core I, II, III, IV or V are part of the General Education curriculum. Students must complete a minimum of 40 hours of General Education courses, chosen from the approved list.