

**Civil Engineering, B.S. (124 Units)**

Valid for Catalog Years: 2018/2019 to Present

\*Official planning guide approved by the Lyles College of Engineering

For assistance or to schedule an advising appointment, please contact the **Department of Civil & Geomatics Engineering** at 559-278-4828, Engineering East 178A  
**Lyle College of Engineering Advising Center:** 559-278-1076, Engineering East 383

|                          | Freshman   |  | Sophomore   |  | Junior  |  | Senior   |   |
|--------------------------|--|--|---|--|---|--|--|---|
|                          | Fall   | Spring   | Fall  | Spring   | Fall  | Spring   | Fall   | Spring  |
| Units                    | 16-17  | 14-15  | 17  | 16   | 17  | 15   | 17-21  | 12  |
| <b>Milestones</b>        |  | Mandatory Freshman Advising;<br>MATH 75 with "C" or better | Mandatory Major Advising;<br>MATH 76 & PHYS 4A both with "C" of better; | Mandatory Major Advising;<br>MATH 77, PHYS 4B, & CE 20, all three with "C" of better | Mandatory Major Advising;<br>MATH 81 with "C" of better, CHEM 3A & GME 15 | Mandatory Major Advising;<br>CE 121, 121L, 128, 142, & 150 | CE 123, 123L, 130, CE Tech with "C" or better, and UDWS with "C" of better;<br>All TAC must average a "C" of better;<br>Major and Cumulative GPA must be 2.00 or above | CE 132, 180A, & CE Tech;<br>All TAC must average a "C" or better;<br>Major and Cumulative GPA must be 2.00 or above |
| <b>General Education</b> | <b>A1 (3 Units)</b><br>Oral Communication<br>*Must pass with a C or better                         | <b>D1 (3 Units)</b><br>American History                    | <b>D2 (3 Units)</b><br>American Government                              |  |   | <b>D3 (3 Units)</b><br>Social Science                      |  |   |
|                          | <b>A2 (3 Units)</b><br>Written Communication<br>*Must pass with a C or better; ENGL 10 recommended |  |   |  |   |  |  |   |
|                          | <b>B2 (3-4 Units)</b><br>Life Sciences<br>*BIOL 10 recommended                                     |  |   |  |   |  |  |   |

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|       | Fall  | Spring  | Fall   | Spring   | Fall  | Spring  | Fall  | Spring  |
| Units | 16-17   | 14-15   | 17   | 16   | 17  | 15  | 17-21   | 12  |
| Major | <p><b>GE Area B4</b><br/><b>MATH 75</b><br/><b>(4 Units)</b><br/>Quantitative Reasoning<br/>[Pre-Req: Elementary geometry, intermediate algebra, &amp; trigonometry OR precalculus. Passing score on department's Calculus Readiness Test; ELM]</p> | <p><b>GME 66, ME 26, or CM 4</b><br/><b>(3 Units)</b><br/>*See course catalog for prerequisite requirements</p> | <p><b>GE Area B1</b><br/><b>CHEM 3A</b><br/><b>(4 Units)</b><br/>Physical Sciences<br/>[Pre-Req: GE B4 (may be taken concurrently)]<br/>*No credit for CHEM 3A after CHEM 1A</p> | <p><b>GE Area C2</b><br/><b>PHIL 1 or 10</b><br/><b>(3 Units)</b><br/>Humanities<br/>*See course catalog for prerequisite requirements</p> | <p><b>GE Area IB</b><br/><b>CE 121</b><br/><b>(3 Units)</b><br/>Physical Universe &amp; Its Life Forms<br/>[Pre-Req: CE 20]</p> | <p><b>CE 123</b><br/><b>(3 Units)</b><br/>[Pre-Req: CE 121; Co-Req: CE 123L]</p>                                  | <p><b>CE 132</b><br/><b>(3 Units)</b><br/>[Pre-Req: CE 130]</p> | <p><b>MI</b><br/><b>PLSI 120</b><br/><b>(3 Units)</b><br/>Multicultural/International<br/>[Pre-Req: GE Foundation &amp; Breadth Area D]</p> |
|       | <p><b>CE 85</b><br/><b>(3 Units)</b></p>  | <p><b>MATH 76</b><br/><b>(4 Units)</b><br/>[Pre-Req: MATH 75 or MATH 75A &amp; B]</p>                           | <p><b>CE 20</b><br/><b>(3 Units)</b><br/>[Pre-Req: MATH 76; PHYS 4A]</p>   | <p><b>CE 110</b><br/><b>(3 Units)</b><br/>[Pre-Req: MATH 76 (may be taken concurrently)]</p>   | <p><b>CE 121L</b><br/><b>(1 Unit)</b><br/>[Pre-Req: CE 121 (may be taken concurrently)]</p>                                     | <p><b>CE 123L</b><br/><b>(1 Unit)</b><br/>[Pre-Req: CE 121L (may be taken concurrently); Corequisite: CE 123]</p> | <p><b>CE 133</b><br/><b>(3 Units)</b><br/>[Pre-Req: CE 130]</p> | <p><b>CE 161</b><br/><b>(2 Units)</b><br/>[Pre-Req: CE 130; instructor permission]</p>  |

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|-------|---------------|--|---|---|--|--|--|---|
|       | Fall<br>16-17 | Spring<br>14-15  | Fall<br>17  | Spring<br>16  | Fall<br>17   | Spring<br>15   | Fall<br>17-21  | Spring<br>12  |
| Major |               | <b>PHYS 4A<br/>(3 Units)</b><br>[Pre-Req: GE B4;<br>MATH 76 (may be taken concurrently)] | <b>MATH 77<br/>(4 Units)</b><br>[Pre-Req: MATH 76]                                      | <b>EES 1<br/>(4 Units)</b><br>[Pre-Req: MATH 4R or second-year high school algebra recommended] | <b>CE 128<br/>(3 Units)</b><br>[Pre-Req: CE 20 (may be taken concurrently)]                | <b>CE 124<br/>(1 Unit)</b><br>[Pre-Req: CE 121L]                             | <b>CE 180A<br/>(2 Units)</b><br>*See course catalog for prerequisite requirements  | <b>CE 180B<br/>(2 Units)</b><br>[Pre-Req: CE 180A, 123/L, 124, 129, 132, 142/L, 150, 161; Technical Area Courses (9 units); approved project proposal; instructor permission; Corequisites: CE 185; Technical Area Courses (12 units including 9 units Design Courses)] |
|       |               | <b>PHYS 4AL<br/>(1 Unit)</b><br>[Pre-Req: Corequisite: PHYS 4A]                          | <b>PHYS 4B<br/>(3 Units)</b><br>[Pre-Req: PHYS 4A; MATH 77 (may be taken concurrently)] | <b>GME 15<br/>(2 Units)</b><br>[Pre-Req: MATH 5]  | <b>CE 129<br/>(1 Unit)</b><br>[Pre-Req: CE 128 (may be taken concurrently)]                | <b>CE 130<br/>(3 Units)</b><br>[Pre-Req: CE 121]                             | <b>CE Technical Area<br/>(3 Units)</b><br>*See footnotes   |   |
|       |               |  |   | <b>GME 15L<br/>(1 Unit)</b><br>[Pre-Req: GME 15 (may be taken concurrently)]                    | <b>CE 142<br/>(3 Units)</b><br>[Pre-Req: May be taken concurrently: CHEM 1A or 3A; CE 128] | <b>CE 142L<br/>(1 Unit)</b><br>[Pre-Req: CE 142 (may be taken concurrently)] | <b>CE Technical Area<br/>(3 Units)</b><br>*See footnotes   | <b>CE 185<br/>(2 Units)</b><br>[Pre-Req: Senior standing or instructor permission]  |
|       |               |  |   | <b>MATH 81<br/>(3 Units)</b><br>[Pre-Req: MATH 77]  | <b>CE 150<br/>(3 Units)</b><br>[Pre-Req: GME 15; upper division standing]                  | <b>CE Technical Area<br/>(3 Units)</b><br>*See footnotes                     | <b>ECE 91 or<br/>CE Technical Area<br/>(3 Units)</b><br>*See course catalog for prerequisite requirements; see footnotes | <b>CE Technical Area<br/>(3 Units)</b><br>*See footnotes  |
|       |               |  |   |   | <b>ME 112<br/>(3 Units)</b><br>[Pre-Req: CE 20; MATH 81 or ENGR 101]                       |  |  |   |



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|------------------------------------|---------------|-----------------|------------|--------------|------------|--------------|---|--------------|
|                                    | Fall<br>16-17 | Spring<br>14-15 | Fall<br>17 | Spring<br>16 | Fall<br>17 | Spring<br>15 | Fall<br>17-21   | Spring<br>12 |
| Additional Graduation Requirements |               |                 |            |              |            |              | UDWS<br>(0-4 Units)<br>*Upper Division Writing Exam<br>OR "W" Course (must pass with a C or better) |              |

**FOOTNOTES:**

**Prerequisites/Corequisites:** Other restrictions may apply. Please see your course catalog for detailed prerequisite/corequisite requirements.

**Grade Requirements:** Courses in mathematics, physical sciences, or engineering taken CR/NC are not counted toward fulfillment of degree requirements in Civil Engineering. 12 units of Technical Area Courses should be completed with an average grade of at least a C.

**CE Technical Area (12 units):** Select 12 units from (Environmental and Water Resources: CE 140, 141, 144, 146); (General Professional: CE 190, 191T); (Geotechnical: CE 125, 134); (Structures: CE 131, 136, 137); (Geomatics: GME 151, 173); and/or (Transportation: CE 151, 152, 153). At least 9 units must be selected from (Design Courses: CE 125, 134, 136, 141, 144, 146, 151).

**Upper Division Writing Skills requirement (UDWS):** All undergraduate students must demonstrate competency in writing skills by passing the Upper Division Writing Exam (UDWE) or by obtaining a C or better in an approved upper division writing course, identified by the letter "W."

**Substitutions:** If substitutions/exceptions/waivers are made for any major courses that also meet GE and/or the Multicultural/International graduation requirement, the student is responsible for completing additional courses to satisfy the respective areas (GE and/or MI). This also includes the upperdivision writing requirement.