### B.S. CIVIL ENGINEERING - ENGINEERING MATH 2018

<table>
<thead>
<tr>
<th>FRESHMAN</th>
<th>SOPHOMORE</th>
<th>JUNIOR</th>
<th>SENIOR</th>
</tr>
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<tbody>
<tr>
<td><strong>Fall (17 hrs)</strong></td>
<td><strong>Spring (16 hrs)</strong></td>
<td><strong>Fall (15.5 hrs)</strong></td>
<td><strong>Spring (15 hrs)</strong></td>
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<tr>
<td>CVEEN 1000</td>
<td>CVEEN 1400</td>
<td>CVEEN 2010</td>
<td>CVEEN 4900 &amp; 2 Design Technical Electives</td>
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<tr>
<td>Intro to Civil &amp; Environmental Engineering</td>
<td>Computer-Aided Design</td>
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<tr>
<td>MATH 1050 or MATH 1060 or MATH 1310</td>
<td>MATH 1310</td>
<td>MATH 1310 &amp; PHYS 2210</td>
<td>MATH 3130</td>
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<tr>
<td>MATH 1310</td>
<td>Engineering Calculus I (QR)</td>
<td>MATH 2140</td>
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<td>F/SP</td>
<td>F/SP</td>
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<tr>
<td>PHYS 2210</td>
<td>Physics for Sci &amp; Engineers I</td>
<td>CHEM 2300</td>
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<tr>
<td></td>
<td>General Ed. Requirement</td>
<td>Engineering Economics</td>
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<tr>
<td>WRTG 1010</td>
<td>Intermediate Writing</td>
<td>ME EN 2030</td>
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<td></td>
<td>Dynamics</td>
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<td>F/SP</td>
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<td>F/SP</td>
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<tr>
<td>CHEM 1220</td>
<td>Gen Chemistry II</td>
<td>CVEEN 2310</td>
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<tr>
<td>or PHYS 2220</td>
<td>Probability &amp; Statistics</td>
<td>General Ed. Requirement/DV</td>
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<td></td>
<td>Physics for Sci &amp; Engineers I</td>
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<tr>
<td>CHEM 1210</td>
<td>Gen Chemistry I</td>
<td>MATH 2250</td>
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<td>Lab</td>
<td>Additional Science Requirement</td>
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<tr>
<td>MG EN 2400</td>
<td>Surveying</td>
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<td><strong>Total Required Credit Hours: 126.5</strong></td>
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**Have you completed 3 of the 4 shaded courses?**  Is your EGPA ≥2.50?  If yes, apply for Full Major Status!

### Recommended General Education Courses
- LEAP 1501 Social & Ethical Engineering (BF) - Fall only
- LEAP 1500 Humanities for Engineers (HFDV) - Spring only

- The Additional Science Requirement includes courses from the following departments: Biology, Geology & Geophysics, and Atmospheric Sciences.

- **KEY**
  - Full Major Status Required
  - Prerequisite
  - Corequisite

*Updated February 7, 2018*
Congratulations on reaching the Technical Electives! These delve deeper into the various areas covered in the 3000-level courses. A total of 6 Technical Electives, with the exception of Fastrax students, are required. While you are able to take courses in your areas of interest, further specialization is achieved by pursuing Graduate School.

### Primary Technical Electives

**To graduate with a Bachelor of Science Degree in Civil & Environmental Engineering you must:**

1. Take at least one course from 3 of the 5 emphasis areas in the Primary section. Three different checkboxes must be marked to fulfill this requirement.
2. Complete at least two Design courses from different emphasis areas. These are designated by a shaded box. Example: CVEEN 4221 and CVEEN 5420

As long as these requirements are satisfied, you may take the remaining 3 technical electives in either section.

#### Environmental
- CVEEN 3610 & 3615
- CVEEN 3610 & 3615
- CVEEN 3610 & 3615
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- CVEEN 3610 & 3615
- CVEEN 3610 & 3615

#### Structures
- CVEEN 3210
- CVEEN 3210
- CVEEN 3210
- CVEEN 3210
- CVEEN 3210
- CVEEN 3210

#### Geotech & Materials
- CVEEN 3510 & 3515
- CVEEN 3510 & 3515
- CVEEN 3510 & 3515
- CVEEN 3510 & 3515
- CVEEN 3510 & 3515
- CVEEN 3510 & 3515

#### Transportation
- CVEEN 5510
- CVEEN 5510
- CVEEN 5510
- CVEEN 5510
- CVEEN 5510
- CVEEN 5510

#### Water Resources
- CVEEN 5410
- CVEEN 5410
- CVEEN 5410
- CVEEN 5410
- CVEEN 5410
- CVEEN 5410

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### Secondary Technical Electives

With the exception of Construction, where only one course may be taken, you may take multiple courses in a single emphasis area — up to a total of 3 courses.

#### Environmental
- CVEEN 3610 & 3615
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- CVEEN 3610 & 3615
- CVEEN 3610 & 3615
- CVEEN 3610 & 3615
- CVEEN 3610 & 3615

#### Structures
- CVEEN 3210
- CVEEN 3210
- CVEEN 3210
- CVEEN 3210
- CVEEN 3210
- CVEEN 3210

#### Construction Management (Max 1)
- CVEEN 3100
- CVEEN 3100
- CVEEN 3100
- CVEEN 3100
- CVEEN 3100
- CVEEN 3100

#### Nuclear Engineering
- CHEM 1220, PHYS 2220, MATH 1220
- CHEM 1220, PHYS 2220, MATH 1220
- CHEM 1220, PHYS 2220, MATH 1220
- CHEM 1220, PHYS 2220, MATH 1220
- CHEM 1220, PHYS 2220, MATH 1220
- CHEM 1220, PHYS 2220, MATH 1220

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Caveat: Semester availability is subject to change at the discretion of the department and does not create a binding contractual nexus or obligation between the student and the University of Utah.