# B.S. CIVIL ENGINEERING - ENGINEERING MATH 2022

<table>
<thead>
<tr>
<th>FRESHMAN</th>
<th>SOPHOMORE</th>
<th>JUNIOR</th>
<th>SENIOR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong> (17 hrs)</td>
<td><strong>Spring</strong> (16 hrs)</td>
<td><strong>Fall</strong> (15.5 hrs)</td>
<td><strong>Spring</strong> (17 hrs)</td>
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<tr>
<td>CVEEN 1000 Intro to Civil &amp; Environmental Engineering</td>
<td>CHEM 1210 Gen Chemistry I or PHYS 2220 Physics for Sci &amp; Engineers</td>
<td>CVEEN 2140 Structural Loads &amp; Analysis (QI)</td>
<td>CVEEN 4900 Professional Practice &amp; Design I</td>
</tr>
<tr>
<td>CVEEN 1400 Computer-Aided Design</td>
<td>CVEEN 2000 Seminar</td>
<td>CVEEN 3210 Geotech I (QI)</td>
<td>CVEEN 4910 Professional Practice &amp; Design II</td>
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<tr>
<td>MATH 1310 Engineering Calculus I (QR)</td>
<td>CVEEN 2140 Strength of Materials</td>
<td>CVEEN 3310 Transportation</td>
<td>CVEEN 4940 &amp; 2 Design Technical Electives</td>
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<tr>
<td>MATH 1320 Engineering Calculus II</td>
<td>CVEEN 2010 Statics</td>
<td>CVEEN 3410 Hydraulics (QI)</td>
<td>CVEEN Elective</td>
</tr>
<tr>
<td>General Ed. Requirement</td>
<td>CVEEN 2750 Computer Tools</td>
<td>CVEEN 3415 Lab</td>
<td>WRTG Elective</td>
</tr>
<tr>
<td>PHYS 2210 Physics for Sci &amp; Engineers I</td>
<td>CVEEN 2320 Engineering Economics</td>
<td>CVEEN 3510 Materials</td>
<td>CVEEN 4940 &amp; 2 Design Technical Electives</td>
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<tr>
<td><strong>Fall</strong> (15.5 hrs)</td>
<td><strong>Spring</strong> (14 hrs)</td>
<td><strong>Fall</strong> (17 hrs)</td>
<td><strong>Spring</strong> (17 hrs)</td>
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<tr>
<td>MATH 1210 or MATH 1060</td>
<td>CHEM 1220 Gen Chemistry II or PHYS 2220 Physics for Sci &amp; Engineers</td>
<td>CVEEN 3610 Environmental</td>
<td><strong>Fall</strong> (15 hrs)</td>
</tr>
<tr>
<td>CHEM 1215 Gen Chemistry I Lab</td>
<td>CHEM 1225 Gen Chemistry II Lab</td>
<td>CVEEN 4910 Professional Practice &amp; Design II</td>
<td>CVEEN Elective</td>
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<td></td>
<td>PHYS 2215 Physics for Sci &amp; Engineers I Lab</td>
<td>CVEEN Elective</td>
<td>WRTG Elective</td>
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<td>MATH 1060</td>
<td>CVEEN Elective</td>
<td>CVEEN Elective</td>
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<tr>
<td>MG EN 2400 Surveying</td>
<td>MATH 2250 Diff Equations &amp; Linear Algebra</td>
<td>CVEEN Elective</td>
<td>CVEEN Elective</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!

- **Additional Science Requirement** is satisfied by taking any 1000+ course in the following departments: Biology, Geology & Geophysics, and Atmospheric Sciences.

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

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### Key
- Full Major Status Required
- Prerequisite
- Corequisite

**Updated February 17, 2022**

**Total Required Credit Hours: 126.5**
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 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.

### 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.

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### Environmental

- CVEEN 3610, 3615 & 2140
- CVEEN 3620
- CVEEN 3622
- CVEEN 3640
- CVEEN 3650

### Structures

- CVEEN 4221
- CVEEN 4222
- CVEEN 4321
- CVEEN 4322
- CVEEN 4323

### Geotech & Materials

- CVEEN 5305
- CVEEN 5500
- CVEEN 5510
- CVEEN 5520
- CVEEN 5590

### Transportation

- CVEEN 5510
- CVEEN 5550
- CVEEN 5610
- CVEEN 5650
- CVEEN 5710

### Water Resources

- CVEEN 5410
- CVEEN 5450
- CVEEN 5490
- CVEEN 5510
- CVEEN 5590

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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.