### B.S. CIVIL ENGINEERING - TRADITIONAL MATH 2020

#### FRESHMAN
- **Fall (17 hrs)**
  - **CVEEN 1000**: Intro to Civil & Environmental Engineering (F)
  - **MATH 1050** or **MATH 1060**: Calculus I (QR) (SP/SU)
  - **PHYS 2210**: Physics for Sci & Engineers I (F/SP/SU)
- **Spring (16 hrs)**
  - **CHEM 1210**: Gen Chemistry I (QR) (F/SP/SU)
  - **PHYS 2220**: Physics for Sci & Engineers II (F/SP/SU)
  - **MG EN 2400**: Surveying (F/SU)

#### SOPHOMORE
- **Fall (14.5 hrs)**
  - **CVEEN 1400**: Computer-Aided Design (F)
  - **MATH 2210 & PHYS 2210**: Calculus II (F/SP/SU)
  - **CHEM 2010**: Statics (F/SP/SU)
- **Spring (18 hrs)**
  - **CVEEN 2000**: Seminar (F/SP/SU)
  - **MATH 2220**: Diff Equations & Linear Algebra (F/SP/SU)
  - **ME EN 2030**: Dynamics (F/SP/SU)

#### JUNIOR
- **Fall (17 hrs)**
  - **CVEEN 2140**: Strength of Materials (F/SP/SU)
  - **MATH 2250**: Calculus III (F/SP/SU)
  - **CVEEN 2750**: Computer Tools (F/SP/SU)
- **Spring (17 hrs)**
  - **CVEEN 3210**: Structural Loads & Analysis (QI) (F/SP/SU)
  - **MATH 3210**: Probability & Statistics (F/SP/SU)
  - **CVEEN 3410**: Hydraulics (QI) (F/SP/SU)

#### SENIOR
- **Fall (15 hrs)**
  - **CVEEN 3100**: Professional Practice (F/SP/SU)
  - **MATH 3100**: Calculus III (F/SP/SU)
  - **CHEM 3210**: Materials Lab (F/SP/SU)
- **Spring (15 hrs)**
  - **CVEEN 3150**: Environmental Engineering (F/SP/SU)
  - **MATH 3150**: Environmental Engineering (F/SP/SU)
  - **CVEEN 4900**: Design Capstone (F/SP/SU)

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**Final Semester - Senior Fall (15 hrs)**
- **CVEEN 4910**: Design Elective (F/SP/SU)
- **CVEEN 4920**: Technical Elective (F/SP/SU)
- **CVEEN 4930**: Technical Elective (F/SP/SU)
- **CVEEN 4940 & 2 Design Electives**: (F/SP/SU)

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**Total Required Credit Hours: 129.5**

**Have you completed all the shaded courses? Is your EGPA 2.25? If yes, apply for Full Major Status!**

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**Required Courses**
- **Calculus II**
- **Technical Elective**
- **Corequisite**
- **Prerequisite**
- **Additional Science Requirement**
- **Additional Corequisite**

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

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

### Water Resources

- CVEEN 3610 & 3615
- CVEEN 3410 & 3415

### Structures

- CVEEN 3610 & 3615
- CVEEN 4210
- CVEEN 4221
- CVEEN 5305
- CVEEN 5500
- CVEEN 5510
- CVEEN 5560
- CVEEN 5420

### Geotech & Materials

- CVEEN 3610 & 3615
- CVEEN 3310 & 3315
- CVEEN 3510 & 3515
- CVEEN 5305
- CVEEN 5500
- CVEEN 5510
- CVEEN 5560

### Transportation

- CVEEN 3610 & 3615
- CVEEN 3510
- CVEEN 3520

### Environmental

- CVEEN 3610 & 3615
- CVEEN 3210
- CVEEN 4222
- CVEEN 5570

### Nuclear Engineering

- CHEM 1220, PHYS 2220, MATH 1220
- CHEM 1220, PHYS 2220, MATH 1220

### Other (Max 1)

- Any 3000+ level course from the College of Engineering or an ABET accredited program

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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.