### B.S. CIVIL ENGINEERING + B.S. CONSTRUCTION ENGINEERING – ENGINEERING MATH 2019

#### FRESHMAN

**Fall (17 hrs)**
- CVEEN 1000 Intro to Civil & Environmental Engineering
- CVEEN 1400 Computer-Aided Design
- MATH 1050 or MATH 1060
- CHEM 1210 Engineering Calculus I (QR)
- CHEM 1215 Gen Chemistry I Lab
- WRTG 1010 Intermediate Writing
- PHYS 2210 Physics for Sci & Engrs I
- PHYS 2225 Physics for Sci & Engrs II Lab
- COMP 1150 Intro to Architecture (FF)

**Spring (16 hrs)**
- CVEEN 2000 Seminar
- CVEEN 2140 Strength of Materials
- CHEM 1210 & CVEEN 2140
- CHEM 1215 Lab
- MG EN 2400 Surveying
- ARCH 1615 Intro to Architecture (FF)
- GEO 1110 Intro to Earth Systems

#### SOPHOMORE

**Fall (16.5 hrs)**
- MATH 1310 & PHYS 2210
- MATH 1330 \[ \frac{1}{F/SP} \]
- CHEM 1215 Lab
- CHEM 2100, PHYS 2230 & MAT 2250
- MAT 1130 \[ \frac{1}{F/SP} \]
- CHEM 2300 Engineering Calculus II
- CHEM 2570 Dynamics
- MATH 2250 Differential Equations & Linear Algebra

**Spring (17 hrs)**
- CVEEN 2310 Computer Tools
- CVEEN 2350 Transportation
- MATH 1330 \[ \frac{1}{F/SP} \]
- CHEM 2310 & CVEEN 2140
- ME EN 2030 Dynamics
- COMP 1150 Intro to Architecture (FF)
- GEO 1115 Lab

#### JUNIOR

**Fall (17 hrs)**
- MATH 1330 \[ \frac{1}{F/SP} \]
- CHEM 2140 \\
CHEM 2310 &CVEEN 2140 & 2310
- CHEM 2140 & 2310 Lab
- CHEM 2310 & CVEEN 2140
- CHEM 2315 Lab
- ME EN 2030, PHYS 2230 & MAT 2250
- MAT 1130 \[ \frac{1}{F/SP} \]
- CHEM 2300 Engineering Economics
- GEARTH 1100 \[ \frac{1}{SP} \]

**Spring (14 hrs)**
- MATH 2250 Differential Equations & Linear Algebra
- CHEM 2140 & 2310
- CHEM 2140 & 2310 Lab
- CHEM 2310 & CVEEN 2140
- CHEM 2315 Lab
- MATH 2250 Differential Equations & Linear Algebra
- CHEM 2300 Engineering Economics
- GEARTH 1100 \[ \frac{1}{SP} \]

#### SENIOR

**Fall (15 hrs)**
- MATH 1330 \[ \frac{1}{F/SP} \]
- CHEM 2140 & 2310
- CHEM 2140 & 2310 Lab
- CHEM 2310 & CVEEN 2140
- CHEM 2315 Lab
- MATH 2250 Differential Equations & Linear Algebra
- CHEM 2300 Engineering Economics
- GEARTH 1100 \[ \frac{1}{SP} \]

- **Total Required Credit Hours: 142.5**

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**Recommended General Education Courses**

- LEAP 1501 Social & Ethical Engineering (BF) - Fall only
- LEAP 1500 Humanities for Engineers (HFDV) - Spring only

- *GEO 1110 & 1115 can be substituted with GEO 1100 - Evolving Earth (3)*

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**KEY**

- Full Major Status Required
- Prerequisite
- Corequisite

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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!
## Technical Electives

(choose 3)

### Water Resources
- CVEEN 5410: Engineering Hydrology
- CVEEN 5420: Open-Channel

### Environmental
- CVEEN 5605: Water & Wastewater Treatment
- CVEEN 5610: Water Chemistry
- CVEEN 5305: Intro to Foundations
- CVEEN 5500: Sustainable Materials

### Geotech & Materials
- CVEEN 5570: Pavement Design
- CVEEN 5500: Sustainable Materials
- CVEEN 5510, 5515, 5520

### Structures
- CVEEN 5222: Steel I
- CVEEN 5210: Structural Analysis II

### Transportation
- CVEEN 5560: Transportation Planning

### Nuclear Engineering
- CHEM 1220, MATH 1220, & PHYS 2220
- NUCL 3000: Nuclear Principals in Engineering & Science
- NUCL 3100: Neutron Based Engineering

### Other (Max 1)
- CVEEN 5240: Reinforced Timber/Masonry

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

### 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.