

B.S. CONSTRUCTION ENGINEERING – ENGINEERING MATH 2024


FRESHMAN		SOPHOMORE		JUNIOR		SENIOR	
<i>Fall (14 hrs)</i>	<i>Spring (15 hrs)</i>	<i>Fall (17 hrs)</i>	<i>Spring (15 hrs)</i>	<i>Fall (16 hrs)</i>	<i>Spring (16 hrs)</i>	<i>Fall (15 hrs)</i>	<i>Spring (15 hrs)</i>
CVEEN 1000 Intro to Civil & Environmental Engineering F 3	CVEEN 1400 Computer-Aided Design SP 3	CVEEN 2000 Seminar F 1	CVEEN 2140 Strength of Materials F/SP 3 CVEEN 2010 ↓ See catalog for individual prerequisites ↓	CVEEN 3210 Structural Loads & Analysis (QI) F/SP 3 CVEEN 2140 ↓	CVEEN 3100 Technical Communication (CW) F/SP 3 WR TG 2010 ↓	CVEEN 4221 Concrete I F 3 CVEEN 3210 ↓	CVEEN 4920 Design Capstone SP 3 CVEEN 3100, 3700, 4221, 5720, & 1 Design Tech Ele ↓
MATH (1050 & 1060) or MATH 1080 ↓	MATH 1310 ↓	MATH 1310 & PHYS 2210 ↓	See catalog for individual prerequisites ↓	CVEEN 2140 & 2310 ↓	CVEEN 2140 & 2310 ↓	CVEEN 3100 ↓	CVEEN 3310 & 3315 ↓
MATH 1310 Engineering Calculus I (QL) F/SP 4	MATH 1320 Engineering Calculus II F/SP/SU 4	CVEEN 2010 Statics F/SP 3	CVEEN 2410 Geomatics or MG EN 2400 Surveying F/SP 3	CVEEN 3310 Geotech (QI) F/SP 3 CVEEN 3315 Lab 1	CVEEN 3510 Materials (QI) F/SP 3 CVEEN 3515 Lab 1	CVEEN 5720 Project Scheduling F 3	CVEEN 5740 Horizontal Construction SP 3
MATH 1050 or 1080 ↓	MATH 1310 ↓		MATH 1310 ↓	CVEEN 2310 & 2140 ↓		CVEEN 3210 ↓	CVEEN 3210 ↓
CHEM 1210 Gen Chemistry I (PS) F/SP/SU 4	PHYS 2210 Physics for Sci & Engineers I F/SP/SU 4	CVEEN 2310 Probability & Statistics F/SP 3	CVEEN 2750 Computer Tools F/SP 3	CVEEN 3520 Transportation F/SP 3	CVEEN 3710 Contract Specifications SP 3	CVEEN 5790 Vertical Construction F 3	CVEEN 5780 Facade I SP 3
WR TG 1010 ↓	See catalog for individual prerequisites ↓			CVEEN 2750 ↓			
ENGL 2010 or WR TG 2010 Intermediate Writing (WR2) F/SP/SU 3	Science Exploration F/SP/SU 3+	CVEEN 2320 Economics & Management F/SP 3	General Ed. Requirement + DV (HF + DV) F/SP/SU 3	CVEEN 3700 Principles of Construction F 3	Design Technical Elective F/SP 3	Technical Elective F/SP 3	Technical Elective F/SP 3
	See catalog for individual prerequisites ↓	MATH 1320 & PHYS 2210 ↓	* Additional Science				
	CHEM 1215 Gen Chemistry I Lab or PHYS 2215 Physics for Sci & Eng. I Lab F/SP/SU 1	MATH 2250 Diff Equations & Linear Algebra F/SP/SU 4	CVEEN 1060 Life Science in Eng. or BIOL 1010 Bio in 21st Century (DV) or BIOL 1030 Human Biology or BIOL 1610 Fund. Of Biology I F/SP/SU (LS) 3+	General Ed. Requirement (BF) F/SP/SU 3	American Institutions (AI) F/SP/SU 3	Technical Elective F/SP 3	International Requirement (IR) F/SP/SU 3
<input type="checkbox"/> Science Exploration is satisfied by taking CHEM 1220 or PHYS 2220 or any 1000+ course in the following departments: Biology, Geology & Geophysics, and Atmospheric Sciences.							
		General Ed. Requirement (FF) F/SP/SU 3					


Have you completed 3 of the 4 shaded courses? Is your cumulative GPA ≥ 2.50? If yes, apply for Major Status!

* The course used to satisfy the Science Exploration cannot be double counted to satisfy the Additional Science and vice versa.

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

KEY

Full Major Status Required 

Prerequisite 

Corequisite

TECHNICAL ELECTIVES

Students must fulfill 4 technical elective requirements, ensuring they meet the following sub-criteria:

1. Complete at least **one** course from the primary technical elective section.
2. Complete at least **one** course from the design technical elective section. These are designated by a **shaded box**.

As long as these requirements are met, students have the flexibility to choose the remaining **two** technical electives from any section.

PRIMARY TECHNICAL ELECTIVES

CVEEN 3100 ↓

CVEEN 5710

Cost Estimation
& Proposal Writing

F 3

CVEEN 3100 ↓

CVEEN 5730

Project Management
& Contract Admin

SP 3

CVEEN 3100 ↓

CVEEN 5750

Engineering Law
& Contracts

SU 24/26 3

DESIGN TECHNICAL ELECTIVES

CVEEN 3310 & 3315 ↓

CVEEN 5305

Introduction to
Foundations

F 3

CVEEN 3520 & 2140 ↓

CVEEN 5510

Highway Design

SP 3

ADDITIONAL TECHNICAL ELECTIVES

Course #	Course Title	Pre-reqs	Semester	Course #	Course Title	Pre-reqs	Semester
CVEEN 3410/15	Hydraulics	CVEEN 2140 & 2310	F/SP	CVEEN 5610	Water Chemistry	CVEEN 2140, 3610/15	F
CVEEN 3610/15	Environmental Engineering	CHEM 1210 & CVEEN <u>2140</u>	F/SP	CVEEN 5920	Special Topics	Dept. Consent	Varies
CVEEN 4222	Steel I	CVEEN 3210	SP	NUCL 3000	Nuclear Principles	CHEM 1220, MATH 1220, CVEEN 2010	SP (online)
CVEEN 4999	Honors Thesis	Dept. Consent	F/SP	NUCL 3100	Radiation Interactions	CHEM 1220, MATH 1220, CVEEN 2010	SP
CVEEN 5210	Structural Analysis II	CVEEN 3210	SP	NUCL 3200	Radiochemistry	CHEM 1220, MATH 1220, CVEEN 2010	F (online)
CVEEN 5220	Concrete II	CVEEN 4221	SP (even)	CVEEN 6XXX	CVEEN Graduate Courses	3.20 GPA & Instructor Consent	F/SP
CVEEN 5230	Steel II	CVEEN 4222	F (even)		Any 3+ credit, 3000+ level course from the College of Engineering or an ABET accredited program	Varies	F/SP
CVEEN 5240	Reinforced Timber/Masonry	CVEEN 3210	F				
CVEEN 5410	Engineering Hydrology	CVEEN 3410/15	SP				
CVEEN 5420	Open Channel Flow	CVEEN 3410/15	F				
CVEEN 5500	Sustainable Materials (IR)	CVEEN 3510/15	SP				
CVEEN 5570	Pavement Design	CVEEN 3510/15	F				
CVEEN 5605	Water & Wastewater Treat.	CVEEN 3610/15	SP				

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