

# B.S. CONSTRUCTION ENGINEERING – ENGINEERING MATH 2021

<u>FRESHMAN</u>		<u>SOPHOMORE</u>		<u>JUNIOR</u>		<u>SENIOR</u>	
Fall (17 hrs)	Spring (16 hrs)	Fall (16.5 hrs)	Spring (16 hrs)	Fall (14 hrs)	Spring (15 hrs)	Fall (15 hrs)	Spring (15 hrs)
<b>CVEEN 1000</b> Intro to Civil & Environmental Engineering F 2	<b>CVEEN 1400</b> Computer-Aided Design SP 3	<b>CVEEN 2000</b> Seminar F 0.5	CVEEN 2010 ↓ <b>CVEEN 2140</b> Strength of Materials F/SP 3	CVEEN 2140 ↓ <b>CVEEN 3210</b> Structural Loads & Analysis (QI) F/SP 3	WRTG 2010 ↓ <b>CVEEN 3100</b> Technical Communication (CW) F/SP 3	CVEEN 3210 ↓ <b>CVEEN 4221</b> Concrete I F 3	CVEEN 3100, 3700, 4221, 5720, & 1 Design Tech Ele ↓ <b>CVEEN 4920</b> Design Capstone SP 3
MATH (1050 & 1060) or MATH 1080 ↓	MATH 1310 ↓	MATH 1310 & PHYS 2210 ↓		CVEEN 2140 & 2310 ↓	CVEEN 2310 & 2140 ↓	CVEEN 3100 ↓	CVEEN 3310 & 3315 ↓
<b>MATH 1310</b> Engineering Calculus I (QR) F/SP 4	<b>MATH 1320</b> Engineering Calculus II F/SP/SU 4	<b>CVEEN 2010</b> Statics F/SP 3	<b>CVEEN 2300</b> Engineering Economics F/SP 2	<b>CVEEN 3310</b> Geotech I (QI) 3 <b>CVEEN 3315</b> Lab 1	<b>CVEEN 3520</b> Transportation F/SP 3	<b>CVEEN 5720</b> Project Scheduling F 3	<b>CVEEN 5740</b> Horizontal Construction SP 3
	MATH 1310 ↓	MATH 1310 ↓	MATH 1310 ↓	CVEEN 2140 & 2310 ↓		CVEEN 3210 ↓	CVEEN 3210 ↓
<b>General Ed. Requirement</b> F/SP/SU 3	<b>PHYS 2210</b> Physics for Sci & Engineers I F/SP/SU 4	<b>CVEEN 2310</b> Probability & Statistics F/SP 3	<b>CVEEN 2750</b> Computer Tools SP 2	<b>CVEEN 3510</b> Materials 3 <b>CVEEN 3515</b> Lab 1	<b>CVEEN 3710</b> Contract Specifications SP 3	<b>CVEEN 5790</b> Vertical Construction F 3	<b>CVEEN 5780</b> Facade I SP 3
WRTG 1010 ↓	See catalog for individual prerequisites ↓	MATH 1060 ↓		CVEEN 2750 ↓			
<b>WRTG 2010</b> Intermediate Writing F/SP/SU 3	<b>CHEM 1220</b> Gen Chemistry II or <b>PHYS 2220</b> Physics for Sci & Engineers II F/SP/SU 4	<b>MG EN 2400</b> Surveying F/SU 3	<b>General Ed. Requirement/DV</b> F/SP/SU 3	<b>CVEEN 3700</b> Principles of Construction Eng. F 3	<b>Design Technical Elective</b> F/SP 3	<b>Technical Elective</b> F/SP 3	<b>Technical Elective</b> F/SP 3
MATH 1050 ↓	See catalog for individual prerequisites ↓	MATH 1320 & PHYS 2210 ↓					
<b>CHEM 1210</b> Gen Chemistry I 4 <b>CHEM 1215</b> Lab 1	<b>CHEM 1225</b> Gen Chemistry II Lab or <b>PHYS 2215</b> Physics for Sci & Engineers I Lab or <b>PHYS 2225</b> Physics for Sci & Engineers II Lab F/SP/SU 1	<b>MATH 2250</b> Diff Equations & Linear Algebra F/SP/SU 4	<b>ARCH 1615</b> Intro to Architecture (FF) F/SP 3		<b>General Ed. Requirement</b> F/SP/SU 3	<b>American Institutions</b> F/SP/SU 3	<b>General Ed. Requirement/IR</b> F/SP/SU 3
		<b>ECON 2010</b> Microeconomics (BF) F/SP/SU 3	<b>^ GEO 1100</b> Evolving Earth F/SP 3	<b>Recommended General Education Courses</b> LEAP 1501 Social & Ethical Engineering (BF) - Fall only LEAP 1500 Humanities for Engineers (HFDV) - Spring only  ^ GEO 1100 can be substituted with GEO 1110 & 1115—Earth Systems & Lab (4)			

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

# TECHNICAL ELECTIVE COURSES

Students must complete **three** technical elective courses.

**To graduate with a Bachelor of Science Degree in Construction Engineering you must:**

1. Complete at least **one** course from the Primary section.
  2. Complete at least **one** Design course from the Secondary Section. These are designated by a **shaded box**. *Example: CVEEN 5510*
- As long as these requirements are satisfied, you may take the remaining **one** technical elective from either section.

## PRIMARY TECHNICAL ELECTIVES

CVEEN 3100 ↓

**CVEEN 5710**  
Cost Estimation &  
Proposal Writing  
F 22/24 3

CVEEN 3100 ↓

**CVEEN 5730**  
Project Management  
& Contract Admin.  
SP 3

CVEEN 3100 ↓

**CVEEN 5750**  
Engineering Law &  
Contracts  
SU 22/24 3

## SECONDARY TECHNICAL ELECTIVES

### Structures

CVEEN 3210 ↓

**CVEEN 4222**  
Steel I  
SP 3

CVEEN 3210 ↓

**CVEEN 5240**  
Reinforced  
Timber/Masonry  
F 4

### Transportation

CVEEN 3520 & 2140 ↓

**CVEEN 5510**  
Highway Design  
SP 3

### Geotech & Materials

CVEEN 3310 & 3315 ↓

**CVEEN 5305**  
Introduction to  
Foundations  
F 3

CVEEN 3510 & 3515 ↓

**CVEEN 5500**  
Sustainable  
Materials  
SP 3

### Architecture

**ARCH 6371**  
Intensive Materials  
& Construction  
F 3

### Other (Max 1)

Any 3000+ level  
course from the  
College of  
Engineering or an  
ABET accredited  
program  
3+