

School of Engineering and Engineering Technology

**ENGINEERING, B.S.
CIVIL CONCENTRATION (CVE)**

2020-21

SUGGESTED COURSE SEQUENCE

First Semester - Fall				
17 Hours				
___	CHEM	1111	3	General Chemistry I Lab
___	CHEM	1113	1	General Chemistry I
___	ENGL	1013	3	English Composition I
___	ENGR	1513	3	Intro to Engineering Practice I (Fall only)
___	LETU	1101	1	Cornerstones of Life & Learning
___	MATH	1903	3	Calculus I ⁽¹⁾
___	BIBL	1033	3	Biblical Literature

Second Semester - Spring				
17 Hours				
___	COMM	1113	3	Intro to Speech Communication
___	CVGR	1523	3	Intro to Civil Engineering (Spring only)
___	ENGL	1023	3	English Composition II
___	ENGR	1311	1	Manufacturing Processes Lab
___	MATH	2013	3	Calculus II ⁽¹⁾
___	PHYS	2011	1	University Physics I Lab (Spring only)
___	PHYS	2013	3	University Physics I (Spring only)

Third Semester - Fall				
17 Hours				
___	CVGR	2023	3	Civil Engineering Materials (Fall only)
___	MATH	2023	3	Calculus III
___	MATH	2301	1	Linear Algebra Lab
___	MATH	2303	3	Linear Algebra
___	MEGR	2013	3	Statics ⁽¹⁾
___		4		Science Elective ⁽²⁾

Fourth Semester - Spring				
17 Hours				
___	THEO	2043	3	Biblical Theology for the Christian Life
___	CVGR	2113	3	Introduction to Surveying (Spring only)
___	ENGR	2400	0	Sophomore Design Seminar (Spring only)
___	ENGR	2704	4	Project Mgmt, Design & Entrepreneurship
___	MEGR	3323	3	Mechanics of Materials ⁽¹⁾ (Spring only)
___		4		Science Elective ^(2,3)

Fifth Semester - Fall				
15 Hours				
___	CVGR	3133	3	Principles of Hydraulic Engineering (Fall only)
___	CVGR	3313	3	Structural Analysis (Fall only)
___	CVGR	3403	3	Environmental Engineering (Fall only)
___	MATH	2203	3	Differential Equations
___		3		Civic Engagement Elective

Sixth Semester - Spring				
14 Hours				
___	BIBL		3	Biblical Engagement Elective
___	CVGR	3414	4	Geotechnical Engineering (Spring only)
___	CVGR		4	Civil Emphasis Area Elective ⁽⁴⁾
___			3	Civic Engagement Elective

Seventh Semester - Fall				
16 Hours				
___	CVGR	3713	3	Construction Engineering (Fall only)
___	CVGR		4	Civil Emphasis Area Elective ⁽⁴⁾
___	ENGR	4813	3	Senior Design I (Fall only)
___			3	Ingenuity Elective
___			3	Approved Elective ^(5,6)

Eighth Semester - Spring				
14 Hours				
___	CVGR	4121	1	Prof. Practice of Civil Engineering (Spring only)
___	CVGR		4	Civil Emphasis Area Elective ⁽⁴⁾
___	ENGR	4823	3	Senior Design II (Spring only)
___	THEO		3	Theological Engagement Elective
___			3	Approved Elective ^(5,6)

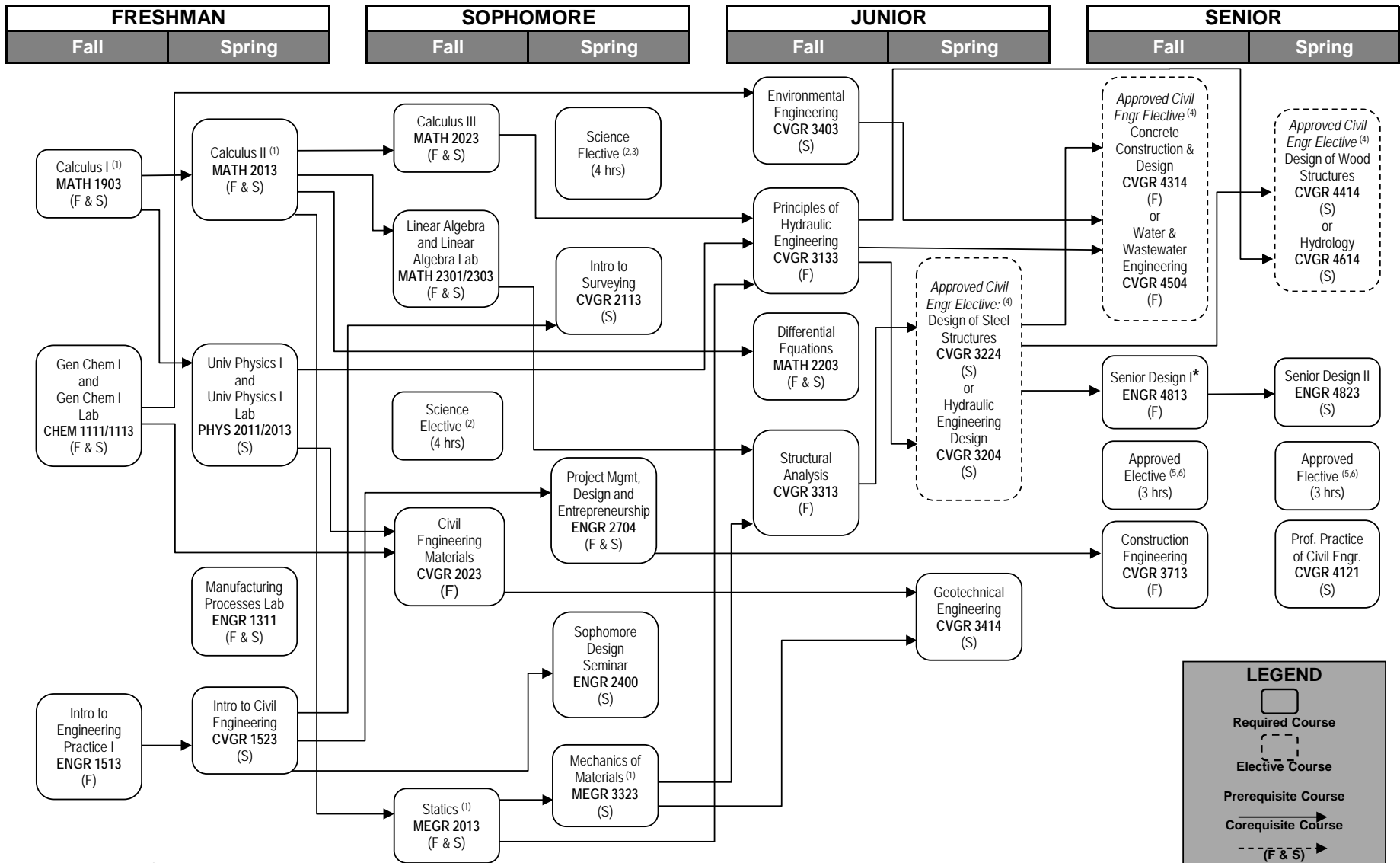
TOTAL HOURS 127

- 1: Minimum grade of 'C' required.
- 2: Science Electives may be chosen from BIOL 1111/1113, BIOL 3204, CHEM 1121/1123, ENVT 1111/1113, GEOL 1114, PHYS 2021/2023.
- 3: May be replaced by MATH 3403 plus MATH 4521.
- 4: See Civil Emphasis Elective groupings below. Student must select and complete all of the courses listed for one of the emphasis areas.
- 5: Approved 3000+ Science, Math, Engineering course or EEGR 2053. Requires advisor approval.
- 6: Approved Electives may include 3 hours of approved 2000+ ACCT, BUSI, ECON, or MGMT credit. Requires advisor approval.

CIVIL EMPHASIS AREA ELECTIVES

STRUCTURAL ENGINEERING EMPHASIS				
CVGR	3224	4		Design of Steel Structures
CVGR	4314	4		Concrete Construction & Design
CVGR	4414	4		Design of Wood Structures
12 TOTAL STRUCTURAL ENGR EMPHASIS				

WATER RESOURCES ENGINEERING EMPHASIS				
CVGR	3204	4		Hydraulic Engineering Design
CVGR	4504	4		Water and Wastewater Engineering
CVGR	4614	4		Hydrology
12 TOTAL WATER RESOURCES EMPHASIS				



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CIVIL EMPHASIS AREA ELECTIVES

STRUCTURAL ENGINEERING EMPHASIS		
CVGR 3224	4	Design of Steel Structures
CVGR 4314	4	Concrete Construction & Design
CVGR 4414	4	Design of Wood Structures
12 TOTAL STRUCTURAL ENGR EMPHASIS		

WATER RESOURCES ENGINEERING EMPHASIS		
CVGR 3204	4	Hydraulic Engineering Design
CVGR 4504	4	Water and Wastewater Engineering
CVGR 4614	4	Hydrology
12 TOTAL WATER RESOURCES EMPHASIS		

*Senior standing, completion of junior courses in concentration, and consent of instructor required.

LEGEND

Required Course

Elective Course

→ Prerequisite Course

→ Corequisite Course

--- (F & S) ---> Course Offered in Fall and Spring

(F) Course Offered in Fall Only

(S) Course Offered in Spring Only

Odd = Course Offered in Odd Years Only

Even = Course Offered in Even Years Only