

**BACHELOR OF SCIENCE IN CIVIL ENGINEERING  
CURRICULUM OUTLINE - CLASS OF 2023**

*Sample Only – Actual Curriculum Sequence May Deviate from Sample*

	FALL	SPRING	SUMMER 1	SUMMER 2
Year 1	MATH1342 Calculus 2 for Engrs. * 4	MATH2321 Calculus 3 for Engrs. 4	Elective General Elective 4	Vacation
	CHEM1151 General Chem. for Engrs. 4	PHYS1151 Physics 1 for Engrs. 3	CIVE2221 Statics and Solid Mechanics 4	
	CHEM1153 Recitation for CHEM1151 0	PHYS1152 Physics 1 Lab 1	CIVE2222 Recitation for CIVE2221 0	
	GE 1501 Cornerstone Eng'g. 1 4	PHYS1153 ILS for PHYS1151 1		
	GE 1000 Intro. to Eng. 1	GE 1502 Cornerstone of Eng'g. 2 4		
	ENGW1111 First Year Writing 4	Elective General Elective 4		
Year 2 (MC)	MATH2341 Diff. Eq./Lin. Alg. 4	ENCP2000 Intro. to Eng'g. Co-op 1	CIVE2324 Concrete Str. Design** 4	Co-op
	ECON1115 Macro or Micro Economics 4	CIVE2320 Structural Analysis 4	Elective General Elective 4	
	or 1116	CIVE2321 Recitation for CIVE2320 0		
	CIVE2260 Materials for the Built Environ. 4	GE 3300 Energy Systems: Science, Tech., & Sustainability 4		
	CIVE2261 Lab for 2260 1	Elective General Elective 4		
	CIVE2334 Environmental Engineering: Principles, Technology, and Sustainability 4	CIVE2331 Fluid Mechanics and Hydraulics 4		
	CIVE2340 Geotechnical Engineering 4			
	CIVE2341 Lab for CIVE 2340 1			
	<i>(prioritize Project Elective prerequisite)</i>			
Year 2 (MD)	MATH2341 Diff. Eq./Lin. Alg. 4			Elective General Elective 4
	ENCP2000 Intro. to Eng'g. Co-op 1			Elective General Elective 4
	CIVE2320 Struct. Analysis 4			
	CIVE2321 Recitation for CIVE2320 0	Co-op		
	CIVE2260 Materials for the Built Environ. 4		Co-op	
	CIVE2261 Lab for 2260 1			
CIVE2334 Environmental Engineering: Principles, Technology, and Sustainability 4				
Year 3 (MC)	ENGW3302 Adv. Writing for Prof.*** 4	Elective Technical Elective 4	Elective General Elective 4	Co-op
	Co-op	Elective Project Elective 4	Elective General Elective 4	
		CIVE3464 Prob./Eng'g. Econ. 4		
		CIVE2331 Fluid Mechanics and Hydraulics 4		
		OR		
		CIVE2340 Geotechnical Engineering 4		
	CIVE2341 Lab for CIVE 2340 1			
	<i>(whichever was not taken in Spring of Year 2)</i>			
Year 3 (MD)	GE 3300 Energy Systems: Science, Tech., & Sustainability 4	ENGW3302 Adv. Writing for Prof.*** 4		CIVE2340 Geotechnical Engineering 4
	CIVE2324 Concrete Str. Design** 4			CIVE2341 Lab for CIVE 2340 1
	CIVE2331 Fluid Mechanics and Hydraulics 4	Co-op		Elective General Elective 4
	ECON1115 Macro- or Microeconomics 4			
	or 1116			
Year 4 (MC)	Co-op	ENCP3000 Prof. Issues in Eng'g. 1		
		Elective Technical Elective 3		
		Elective Technical Elective 4		
		Elective Science Elective 4		
		CIVE 476x Sr. Design Project 5		
Year 4 (MD)	CIVE3464 Prob./Eng'g. Econ. 4	CIVE 476x Sr. Design Project 5		
	ENCP3000 Prof. Issues in Eng'g. 1	Elective Technical Elective 4		
	Elective Technical Elective 4	Elective General Elective 4		
	Elective Project Elective 4	Elective Technical Elective 3		
	Elective Science Elective 4			

\* Students will need to have Advanced Standing Credit (such as Advanced Placement, International Baccalaureate or college credit) for Math 1341 Calculus 1. - see academic advisor

\*\*CIVE3425 Steel Design may be substituted for CIVE2324 Concrete Design.

\*\* Students will need to take Advanced Writing in the Professions online during this co-op. ENGW3315 Interdisciplinary Advanced Writing is an acceptable substitution for engineering majors.

**BS in Civil Engineering - Requirements:**

**General Electives:** Six (6) courses are required.

General electives are academic, non-remedial, non-repetitive courses.

**Nupath requirements:** Interpreting Culture (IC) and Differences and Diversity (DD) are not explicitly satisfied by required engineering courses. Students are responsible for satisfying these requirements, and if these are not fulfilled in engineering courses, should use general electives to do so.

**Science Elective:** One (1) course is required.

See the undergraduate catalog for the list of approved Science Electives.

**Technical Electives:** Three (3) courses are required.

See the undergraduate catalog for the list of Technical Electives.

**Project Elective:** One (1) course required.

See the undergraduate catalog for the list of Project Electives.

**Senior Design Project (Capstone elective):** One (1) course required, either CIVE 4765 (Environmental), CIVE 4767 (Structural), or CIVE 4768 (Transportation)

Course sequence may be changed, subject to prerequisite requirements.

[Please consult with your Academic Advisor, found here.](#)

The registrar's website provides a listing of degree requirements and the DARS system provides a degree audit utility for students.