

Bachelor of Science in Civil Engineering Recommended Course Sequence

All courses with an asterisk (*) must be completed with a minimum grade of “C” or better.

First year

Fall Semester (17 credits)			Spring Semester (18 credits)		
CHEM A105*	General Chemistry I	3	CHEM A106*	General Chemistry II	3
CHEM A105L*	General Chemistry I Lab	1	CHEM A106L*	General Chemistry II Lab	1
ENGL A111*	Methods of Written Comm.	3	COMM A111; 235;237 or 241		3
ENGR A151	Engineering Practices I	3	ES A103/L	Engineering Graphics	3
ENGR A161*	Engineering Practices II	3	MATH 201*	Calculus II	4
MATH A200*	Calculus I	4	PHYS 211*	General Physics I	3
			PHYS 211L*	General Physics I Lab	1

Second year

Fall Semester (17 credits)			Spring Semester (15 credits)		
ENGL A212	Technical Writing	3	ES A210	Engineering Dynamics	3
ES A209*	Engineering Statics	3	ES A302*	Engr. Data Analysis	3
MATH A202*	Calculus III	4	GEO A155	Fundamentals of Surveying	3
PHYS A212*	General Physics II	3	MATH A302*	Ordinary Differential Equations	3
PHYS A212L*	General Physics II Lab	1	Social Science/Humanities/Fine Arts ¹		3
Social Science/Humanities/Fine Arts ¹		3			

Third year

Fall Semester (16 credits)			Spring Semester (16 credits)		
CE A334/L*	Properties of Materials w/lab	3	CE A344	Water Resources Engr.	3
ES A309	Elem. Electrical Engr.	3	CE A431*	Structural Analysis	4
ES A331*	Mechanics of Materials	3	CE 435/L*	Soil Mechanics w/lab	3
ES A341*	Fluid Mechanics	3	ES 346	Basic Thermodynamics	3
ES A341L*	Fluid Mechanics Lab	1	Social Science/Humanities/Fine Arts ¹		3
Social Science/Humanities/Fine Arts ¹		3			

Fourth year

Fall Semester (15-18 credits)			Spring Semester (15-18 credits)		
CE A402	Transportation Engr.	3	CE A403	Arctic Engineering ⁴	3
CE A422	Foundation Engineering	3	CE A438	Design of Engr. Systems	3
CE A441	Intro Enviro. Engineering	3	ESM A450	Econ. Analysis & Operation	3
Social Science/Humanities/Fine Arts ¹		3	Additional Natural Science Elective ³		3
CE A432	Steel Design ²	<u>OR</u> 3	CE A433	Reinforced Concrete Design ²	3
Technical Elective ²		3	Technical Elective ²		3

¹ At least six (6) of the fifteen (15) semester credit hours that are required for Social Science, Humanities and Fine Arts, must be completed at an advance level (200) or above. For Humanities, three (3) credits of the advanced level course requirement may be met by taking sequence courses at the 100 level or above. For example: If History A101 is followed by History A102, then History A102 would count as an advanced level course. See the University Catalog for specific courses to meet requirements.

²Either CE A432 Steel Design or CE A433 Reinforced Concrete Design are required. If both courses are taken, an academic petition may be submitted to count one of the courses as a technical elective.

³An additional CE Natural Science elective (min. 3 credits) must be taken in addition to the 7 credits UAA Natural Science General Education Requirement. GEOL A111 is recommended. However, students may choose from the list of approved Natural Science elective courses in the University Catalog.

⁴CE A403 Arctic Engineering may be taken in either the Fall or Spring semester.