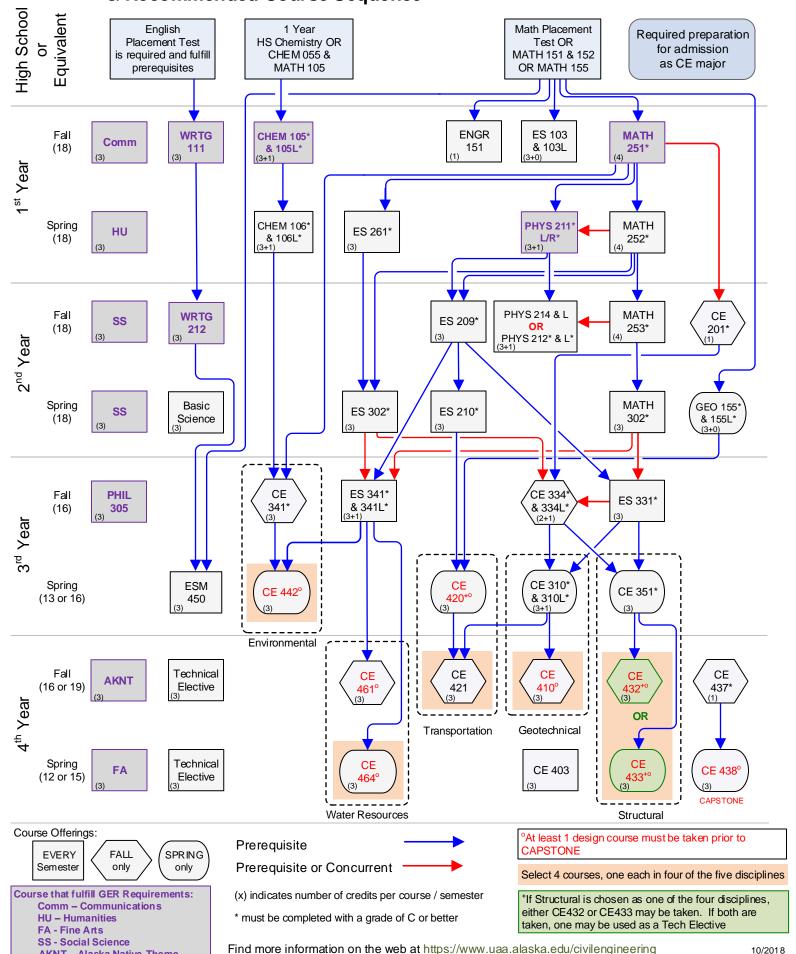
UAA Civil Engineering Program Outline & Recommended Course Sequence

Catalog Year: 2018/2019



Bachelor of Science in Civil Engineering Recommended Course Sequence

Required Courses

CE A201*	Intro to Civil Engineering	1	ES A331*	Mechanics of Materials	3
CE A310/L*	Intro to Geotechnical Engr/lab	4	ES A341*	Fluid Mechanics	3
CE A334*	Properties of Materials	3	ES A341L*	Fluid Mechanics lab	0
CE A334L*	Properties of Materials lab	0	ESM A450	Econ Analysis & Operation	3
CE A341*	Environmental Engrineering	3	GEO A155*	Fundamentals of Surveying	3
CE A351*	Structural Analysis	3	GEO A155L*	Fundamentals of Surveying lab	0
CE A403	Arctic Engineering	3	MATH A251*	Calculus I	4
CE A410 ³	Foundation Engineering	3	MATH A252*	Calculus II	4
CE A420*	Fund. of Transportation Engr I	3	MATH A253*	Calculus III	4
CE A421 ³	Design of Highways	3	MATH A302*	Differential Equations	3
CE A432 ³	Steel Design ³	3	PHIL A305	Professional Ethics	3
CE A433 ³	Reinforced Concrete Design ³	3	PHYS A211*	General Physics I	3
CE A437*	Project Planning	1	PHYS A211L*	General Physics I lab	1
CE A438	Design of Civil Engr Systems	3	PHYS A212*	General Physics II	3
CE A442 ³	Environmental Engr Design	3	PHYS A212L*	General Physics II lab	1
CE A461	Hydraulic Analysis & Design	3	WRTG A212	Writing & the Professions	3
CE A464 ³	Hydrologic Analysis & Design	3			
CHEM A105*	General Chemistry I	3			
CHEM A105L*	General Chemistry I lab	1			
CHEM A106*	General Chemistry II	3	Other Requirements		
CHEM A106L*	General Chemistry II lab	1	CE Technical Elective ⁴		6
ENGR A151	Engineering Practices I	1	Basic Science Elective ²		3
ES A103	Engineering Graphics	3	Alaska Native-Theme ⁵		3
ES A103L	Engineering Graphics lab	0	Fine Arts		3
ES A209*	Statics	3	Humanities		6
ES A210*	Dynamics	3	Oral Communications		3
ES A261*	Engineering Graphics II	3	Social Science		3
ES A302*	Engineering Data Analysis	3	Written Commu	ınication¹	3

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

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¹Students who do not meet the prerequisite requirements for WRTG A212 must take WRTG A111

²The Civil Engineering Program requires a Basic Science Elective (min. 3 credits) is taken from the following list: BIOL A115/L Fundamentals of Biology I with Lab (4), BIOL/GEOL A178 Fundamentals of Oceanography (3), BIOL A271/L Principles of Ecology with Lab (4), GEOL A111 Physical Geology (4), GEOL A115 Environmental Geology (3).

³A 2nd course is required in four of the five disciplines. If all five are taken, one will count as a technical elective. If the structural discipline is chosen as one of the four, the 2nd course may be fulfilled by taking either CE A432 Steel Design or CE A433 Reinforced Concrete Design. If both courses are taken, the second course will count as a technical elective.

⁴Graduate level courses (600 or above) that may be used as technical electives are listed in the Civil Engineering section of the catalog. A petition must be filed with the department to apply these courses as undergraduate credit.

⁵Alaska Native-Theme - Some courses satisfy both this GER and Humanities, Art, or Social Sciences GER. See the catalog or your advisor for courses.