CIVIL ENGINEERING

2019/2020
Four-Year Academic Plan

University of Idaho
College of Engineering

Courses in italics are prerequisites **Courses in bold are co-requisites**

*A grade C or better is required in all math, science and engineering courses used to fulfill degree requirements. Students may accumulate no more than 14 credit hours of D or F in math, science or engineering courses. Included in this number are multiple repeats of a single class or single repeats of multiple classes, as well as courses transferred from other institutions. Students who exceed 14 credits of D or F will be permanently disqualified.

See course catalog for complete degree requirements and additional information at uidaho.edu/registrar/classes/catalogs. Last updated 8/9/19

FRESHMAN

FALL			SPRING		
CE 115	Introduction to Civil Engineering (fall only)	1	ENGR 210	Engineering Statics *MATH 170*	3
ENGR 105	Engineering Graphics	2	MATH 175	Calculus II *MATH 170*	4
PHYS 211/ 211L	Engineering Physics I with Lab **MATH 170**	4	ISEM 101	Integrated Seminar	3
MATH 170	Calculus I *C or better in MATH 143 and 144 or sufficient test scores*	4	GEOL 111/ 111L	Physical Geology for Science Majors with Lab	4
ENGL 102	College Writing and Rhetoric *English 101 or sufficient test scores*	3		**Total Credits**	**14**
	Total Credits	**14**			

SOPHOMORE

FALL			SPRING		
CE 211	Engineering Surveying (fall only) *MATH 143 or 170 or 175, and ENGR 105*	3	CE 215	Civil Engineering Analysis and Design *CE 115, ENGR 105, and MATH 170*	3
ENGR 220	Engineering Dynamics *ENGR 210*	3	ENGR 335	Engineering Fluid Mechanics *MATH 275, ENGR 210*	3
CHEM 111/ 111L	General Chemistry I with Lab *Grade C in MATH 170 or sufficient test scores*	4	ENGR 350	Engineering Mechanics of Materials *ENGR 210, MATH 175,* **MATH 310**	3
MATH 275	Calculus III *MATH 175*	3	MATH 310	Ordinary Differential Equations *MATH 175 (MATH 275 recommended)*	3
ELECTIVE	Humanities/Social Science Elective	3	STAT 301	Probability and Statistics *MATH 175*	3
	Total Credits	**16**	ISEM 301	Integrated Seminar *ENGL 102, Sophomore standing*	1
				Total Credits	**16**

JUNIOR

FALL			SPRING		
CE 322	Hydraulics *CE 215, MATH 310, PHYS 211, ENGR 220 and 335*	4	CE 325	Fundamentals of Hydrologic Engineering (spring only) *MATH 310, STAT 301, and ENGR 335*	3
CE 330	Fundamentals of Environmental Engineering (fall only) *CHEM 111, CE 215 and MATH 310*	3	CE 360	Fundamentals of Geotechnical Engineering (spring only) *CE 215, ENGR 335, ENGR 350, and MATH 310*	4
CE 342	Theory of Structures (fall only) *ENGR 350, MATH 275 and 310, and PHYS 211/211L*	3	CE 372	Fundamentals of Transportation Engineering (spring only) *STAT 301 and CE 211*	3
CE 357	Properties of Construction Materials *CE 215, ENGR 350, MATH 310,* **STAT 301**	4	ELECTIVE	ECON 201 or 202	3
ENGL 317	Technical Writing *ENGL 102, Junior standing or permission*	3	ELECTIVE	Civil Engineering Elective	3
	Total Credits	**17**		**Total Credits**	**16**

SENIOR

FALL			SPRING		
CE 491	CE Professional Seminar (fall only) *Senior standing*	1	CE 494	Senior Design Project *Senior standing and permission*	3
ENGR 360	Engineering Economy *Junior standing*	2	ELECTIVE	Civil Engineering Elective	3
PHIL 103	Introduction to Ethics	3	ELECTIVE	Civil Engineering Elective	3
ELECTIVE	Civil Engineering Elective	3	ELECTIVE	Civil Engineering Elective	3
ELECTIVE	Civil Engineering Elective	3	ELECTIVE	Humanities/Social Science Elective	3
ELECTIVE	Science/Math Elective	3		**Total Credits**	**15**
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CIVIL ENGINEERING

Create sustainable connections between natural and built environments and make life safer for all by improving society's infrastructure.

ABOUT YOUR DEGREE PATH

Civil engineering majors are exposed early and often to design concepts as well as to the practical side of tackling society's infrastructure challenges.

Beginning courses include basic sciences, mathematics and engineering. Junior level courses introduce the subject matter of the civil engineering sub-disciplines, while senior-level courses add depth in elective areas. Your senior year study will conclude with a team-based senior design project sponsored by a real client.

Our graduates can be found in virtually all of the major organizations hiring civil engineers in the Pacific and Inland Northwest and in many other locations throughout the U.S. and the world. Many of these graduates are partners or officers of their organizations. They work for consulting engineering firms, state and federal agencies, and construction contractors. They design and build highways, bridges, water and wastewater conveyance systems, water and wastewater treatment plants, dams, airports, structures and foundations for buildings, and other constructed facilities. They develop plans for managing traffic, preventing landslides on mountain roadways, and managing the quantity and quality of water in streams, lakes and reservoirs.

MATCH YOUR INTERESTS

- Safe and Sustainable Water Resources
- Environmental Engineering
- Mass Transit Systems
- Structures, Bridges and Highways
- Wastewater Treatment and Water Reuse
- Hydrology and Ecohydraulics
- Pavement and Construction Materials

YOUR DEGREE IS ACCREDITED

Our undergraduate Civil Engineering program is accredited by the Engineering Accreditation Commission of ABET,www.abet.org.

DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING
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