

ELECTRICAL ENGINEERING

PROMOTING CREATIVE DISCOVERY, ADVANCING MODERN TECHNOLOGY

Academic Plan 2016/17

What can you do as an Electrical Engineer?

Electrical engineers play a key role in shaping technology. They design a wide range of everyday technology from computers and smartphones, to complex power distribution systems. You can say an electrical engineer tinkers with a purpose. He or she might design more efficient bullet trains, measure winds on the planet Jupiter, or design the electrical system in a car.

Electrical engineering is perfect for individuals with a strong work ethic, natural curiosity, and solid background in math and basic science.

Our graduates go on to successful at companies like Schweitzer Engineering Laboratories, Micron Technologies, Avista, ON Semiconductor, Hewlett Packard, and POWER Engineers.

In other words, there is no limit to what you can do with an electrical engineering degree from the University of Idaho.



Undergraduate Program

By the end of your four years at Idaho you will be proficient in the use of modern theory, techniques, and tools used to solve problems in electrical engineering. You will have designed new products and learned how to solve problems that are waiting to be discovered. Teamwork is important to Idaho engineers, but you will also be able to confidently take on individual challenges.

Each electrical engineering graduate is prepared with a broad knowledge in at least three of the following areas of electrical engineering: microelectronics, power, electromagnetic, digital systems and signals and systems.



University of Idaho
College of Engineering

Department of Electrical & Computer Engineering
208.885.6554 or 88-88-UIDAHO ext. 6554
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FRESHMAN - FALL			FRESHMAN - SPRING		
ENGL 102	College Writing and Rhetoric <i>Engl 101 or sufficient test scores</i>	3	PHYS 211*	Engineering Physics I (with Lab) <i>Math 170</i>	4
MATH 170*	Analytic Geometry & Calculus I <i>Math 143 & 144 or sufficient test scores</i>	4	CHEM 111*	Principles of Chemistry I <i>Chem 050 or permission</i>	4
CS 120*	Computer Science I <i>Math 143 or CS 112</i>	4	MATH 175*	Analytic Geometry & Calculus II <i>Math 170</i>	4
ISEM 101	Integrated Seminar	3	ECE 101	Foundations of Electrical and Comp. Engr. (Spring Only) <i>Math 143</i>	2
ELECTIVE	Free Elective	1	ELECTIVE	Humanities/Social Science/Int'l. Elective	3
		Total Credits	15		
				Total Credits	17
SOPHOMORE - FALL			SOPHOMORE- SPRING		
ECE 210*	Circuits I <i>Math 175, ECE 211 Math 310, Phys 212</i>	3	ENGR 220*	Engineering Dynamics <i>Engr 210</i>	3
ECE 211*	Circuits I with Lab <i>ECE 210, Phys 212</i>	1	MATH 275*	Analytics Geometry & Calculus III <i>Math 175</i>	3
MATH 310*	Ordinary Differential Equations <i>Math 175 (recommended Math 275)</i>	3	ECE 212/213*	Electrical Circuits II with Lab <i>ECE 210, Math 310, Phys 212</i>	4
PHYS 212*	Engineering Physics II (With Lab) <i>Phys 211 Math 175</i>	4	ECE 240/241*	Digital Logic with Lab <i>Phys 212</i>	4
ENGR 210*	Engineering Statics <i>Math 170</i>	3	ECE 292**	Sophomore Seminar (Spring Only)	0
ELECTIVE	Humanities (AmSt 301 or Phil 103)	3	ECON	Economics Elective (201, 202, or 272)	3 or 4
		Total Credits	17		
				Total Credits	17/18
*A grade of C or better is required in these courses before registration is permitted in upper division electrical engineering courses. **A passing grade in ECE 292 is also required.					
JUNIOR - FALL			JUNIOR - SPRING		
ECE 310	Microelectronics I <i>ECE 212/213, ECE 311</i>	3	ECE 340/341	Microcontrollers with Lab <i>ECE 212/213 & 240/241, CS 112 or 120</i>	4
ECE 311	Microelectronics I Lab <i>ECE 310</i>	1	ECE 350/351	Signals & Systems with Lab <i>ECE 212, Math 310</i>	4
ECE 320/321	Energy Systems with Lab (Fall Only) <i>ECE 212, Phys 212</i>	4	ENGR 360	Engineering Economy <i>Jr. Standing</i>	2
ECE 330/331	Electromagnetic Theory with Lab <i>Math 275 & 310, Phys 212</i>	4	STAT 301	Probability & Statistics <i>Math 175</i>	3
MATH 330	Linear Algebra <i>Math 170</i>	3	ISEM 301	Great Issues Seminar	1
			ELECTIVE	Engineering Science (Engr 320, 335, 350, or 428)	3
		Total Credits	15		
				Total Credits	17
SENIOR - FALL			SENIOR- SPRING		
ECE 480	Electrical Engineering Senior Design I	3	ECE 481	Electrical Engineering/Senior Design II (Capstone Core)	3
ECE 491	Senior Seminar (Fall Only)	0	ELECTIVE	Technical Elective	3
ENGL 317	Technical Writing <i>Engl 102 and Jr. Standing</i>	3	ELECTIVE	Technical Elective	3
ELECTIVE	Technical Elective	3	ELECTIVE	Technical Elective	3
ELECTIVE	Technical Elective	3	ELECTIVE	Technical Elective	3
ELECTIVE	Upper Division Humanities, Int'l. or Social Science Elective	3			
		Total Credits	15		
				Total Credits	15

Courses in gold are prerequisites
Courses in italics are co-requisites

Updated 09/16