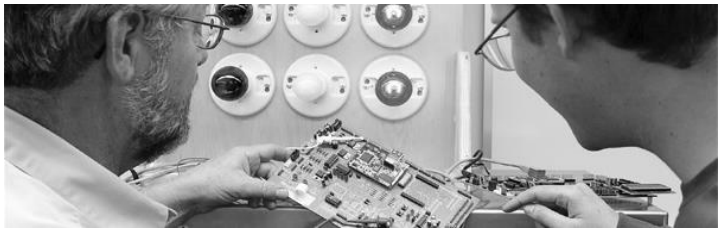
COMPUTER ENGINEERING

AN EDUCATION THAT PREPARES YOU FOR SUCCESS

What can you do as a Computer Engineer?

Computers are all around us. We are aware of a few of them, like laptops and video games, but most of them are invisible, embedded in the products we use. A modern car uses up to 50 microcomputers which control everything from engine operation to the stereo. Computers run the Internet, control the power grid, and operate our cell phones and MP3 players. All these computer-based products are conceived, designed, programmed and tested by computer engineers.

The computer engineer's education is part computer science and part electrical engineering. In order to design the computing hardware and make it sense and control things, the computer engineer must understand electronic circuits, communications, and control. To program the system, the computer engineer needs to know about algorithms, how to express a problem in a computable form, as well as information coding, programming, and operating systems. This is all backed up with a solid grounding in math and science.



Undergraduate Program

In a world increasingly dependent on a technology that is constantly changing, it is important that you are prepared to change with it. With a degree in computer engineering you will be able to apply your knowledge of science and mathematics to the solution of technological problems and design new products and solve new problems in computer engineering. You will develop the confidence to work independently, as well as on a team, and will enhance your technical skills through lifelong learning. By the time you graduate, you will cultivate an understanding of the social ramifications of technological solutions and apply your engineering skills for the overall benefit of society.

University of Idaho
A LEGACY OF LEADING

College of Engineering
Department of Electrical & Computer Engineering
208.885.6554 or 88-88-UIDAHO ext. 6554
info@ece.uidaho.edu

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FRESHMAN - FALL			FRESHMAN - SPRING		
CS 120*	Computer Science I	4	ECE 101	Foundations of Electrical and Computer Engineering (Spring only)	2
ENGL 102	College Writing & Rhetoric	3	MATH 175*	Analytic Geometry & Calculus II	4
MATH 170*	Analytic Geometry & Calculus I	4	MATH 176*	Discrete Mathematics	3
ISEM 101	Integrated Seminar	3	PHYS 211*	Engineering Physics I with Lab	4
SE	Science Elective	4	CS 121*	Computer Science II	4
	Total Credits	**18**		**Total Credits**	**17**
SOPHOMORE – FALL			**SOPHOMORE - SPRING**		
ECE 210/211*	Electrical Circuits I with Lab	4	CS 150*	Computer Organization & Architecture	3
MATH 310*	Ordinary Differential Equations	3	ECE 212/213*	Electrical Circuits II with Lab	4
PHYS 212*	Engineering Physics II with Lab	4	ECE 240/241*	Digital Logic with Lab	4
COMM 101	Fundamentals of Public Speaking	2	MATH 330	Linear Algebra	3
HS/INT	Humanities/Social Science or Int'l Elective	3	ECE 292**	Sophomore Seminar (Spring Only)	0
			HS/INT	Humanities/Social Science or Int'l. Elective	3
	Total Credits	**16**		**Total Credits**	**17**
***A grade of C or better is required in these courses before registration is permitted in upper division electrical and computer engineering courses. **A passing grade in ECE 292 is also required.**					
JUNIOR – FALL			**JUNIOR - SPRING**		
CS 270	System Software	3	CS 240	Computer Operating Systems	3
CS 210	Programming Languages	3	ECE 350/351	Signals & Systems with Lab	4
ECE 310/311	Fundamentals of Electronics with Lab	4	ECE 440	Digital Systems Engineering (Spring Only)	3
ECE 340/341	Microcontrollers with Lab	4	ENGL 317	Technical Writing	3
STAT 301	Probability & Statistics	3	ISEM 301	Great Issues Seminar	1
	Total Credits	**17**		**Total Credits**	**14**
SENIOR – FALL			**SENIOR - SPRING**		
ECE 482	Computer Engineering Senior Design I	3	ECE 483	Computer Engineering Senior Design II	3
ECE 491	Senior Seminar (Fall Only)	0	ELECTIVE	Humanities/Social Science or Int'l Elective	3
ELECTIVE	Humanities/Social Science or Int'l Elective	3	ELECTIVE	Technical Elective	3
ELECTIVE	Technical Elective	3	ELECTIVE	Technical Elective	3
ELECTIVE	Technical Elective	3	ELECTIVE	Technical Elective	3
ELECTIVE	Free Elective	2			
	Total Credits	**14**		**Total Credits**	**15**

- See course catalog for complete degree requirements and additional information.