COMPUTER ENGINEERING

2021/2022
Four-Year Academic Plan

University of Idaho
College of Engineering

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

*A grade of C or better is required before registration is permitted in upper-division courses. **A passing grade in ECE 292 is also required.
See course catalog for complete degree requirements and additional information at uidaho.edu/registrar/classes/catalogs. Last updated 11/3/2020

FIRST YEAR	FALL	
*CS 120	Computer Science I *MATH 143, CS 112 or sufficient test scores*	4
ENGL 102	College Writing and Rhetoric *English 101 or sufficient test scores*	3
*MATH 170	Calculus I *C or better in MATH 143 and 144 or sufficient test scores*	4
*CHEM 111/ 111L	General Chemistry I *C or better in MATH 170 or sufficient test scores*	4
	Total Credits	**15**

	SPRING	
ECE 101	Foundations of Electrical and Computer Engineering **MATH 143 or MATH 170**, Spring only	2
*MATH 175	Calculus II *MATH 170*	4
*MATH 176	Discrete Math **MATH 170**	3
*CS 121	Computer Science II *CS 120*, **MATH 176**	3
*PHYS 211/ 211L	Engineering Physics with Lab **MATH 170**	4
	Total Credits	**16**

SOPHOMORE	FALL	
*ECE 210/211	Electrical Circuits I with Lab *MATH 175*, **MATH 310, PHYS 212**	4
*MATH 310	Ordinary Differential Equations *MATH 175 (MATH 275 recommended)*	3
*PHYS 212/212L	Engineering Physics II with Lab *PHYS 211*, **MATH 175**	4
COMM 101	Fundamentals of Public Speaking	2
+ ELECTIVE	Humanities/Social Science Elective	3
	Total Credits	**16**

	SPRING	
*CS 150	Computer Organization and Architecture *CS 120*	3
*ECE 212/213	Electrical Circuits II with Lab *ECE 210/211, MATH 310, PHYS 212/212L*	4
*ECE 240/241	Digital Logic with Logic Circuit Lab *PHYS 212/PHYS 212L*	4
**ECE 292	Sophomore Seminar (spring only)	P/F
MATH 330	Linear Algebra *MATH 160 or MATH 170 (MATH 175 recommended)*	3
+ ELECTIVE	Humanities/Social Science Elective	3
	Total Credits	**17**

JUNIOR	FALL	
CS 270	System Software *CS 121*	3
CS 210	Programming Languages *CS 121*	3
ECE 310/311	Microelectronics I with Lab *ECE 212/213*	4
ECE 340/341	Microcontrollers with Lab *ECE 212/213, ECE 240/241, and CS 112 or CS 120*	4
STAT 301	Probability & Statistics *MATH 175*	3
	Total Credits	**17**

	SPRING	
CS 240	Computer Operating Systems *CS 121, CS 150*, **CS 270**	3
ECE 350/351	Signals and Systems I with Lab *ECE 212, MATH 310*	4
ECE 440	Digital Systems Engineering *ECE 240, ECE 241 or permission*	3
ENGL 317	Technical Writing *ENGL 102, Junior standing or permission*	3
+ ELECTIVE	Humanities/Social Science Elective	3
	Total Credits	**16**

SENIOR	FALL	
ECE 482	Computer Engineering Senior Design I *CS 240, CS 270, ECE 240/241, ECE 310/311, ECE 340/341, ECE 350/351 or permission*, **ECE 440, STAT 301**	3
ECE 491	Senior Seminar (fall only)	P/F
† ELECTIVE	Technical Elective	3
† ELECTIVE	Technical Elective	3
+ ELECTIVE	Humanities/Social Science Elective	3
+ ELECTIVE	Humanities/Social Science Elective	3
	Total Credits	**15**

	SPRING	
ECE 483	Computer Engineering Senior Design II *ECE 440, ECE 482, STAT 301 or permission*	3
† ELECTIVE	Technical Elective	3
† ELECTIVE	Technical Elective	3
† ELECTIVE	Technical Elective	3
+ ELECTIVE	Humanities/Social Science Elective	3
	Total Credits	**15**

† **TECHNICAL ELECTIVES:** 15 credits of upper-division ECE or CS courses required.

+ **HUMANITIES/SOCIAL SCIENCE ELECTIVES:** Must include AMST 301 or PHIL 103 and ECON 201, 202 or 272.

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COMPUTER ENGINEERING

Develop innovative components and systems to advance computer technology in everything from medical equipment and automobiles to power grids and mobile devices. Computer engineers focus on the hardware – software interface.

ABOUT YOUR DEGREE PATH

Computer Engineering majors take introductory courses in physics, mathematics and computer science to develop a solid foundation on these fundamentals during their first year.

Sophomore year introduces you to more advanced courses in computer science, computer engineering and electrical circuits. Develop your individual interests through the selection of technical electives.

Junior year provides breadth in electrical and computer engineering and computer science, including electronics, signals and systems, computer architecture, software engineering and operating systems.

Seniors participate in our nationally-recognized Senior Capstone Design Program, where students learn to design, test and build a computer engineering system.

MATCH YOUR INTERESTS

- Computers
- Computing Hardware
- Medical Equipment
- Coding
- Electronic Circuits
- Microchips and Microcircuits
- Automobiles
- Communications Systems
- Power Systems

YOUR DEGREE IS ACCREDITED

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

DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING
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