### 2019/2020 Four-Year Academic Plan

#### Freshman

- **Fall**
  - CS 120 Computer Science I
    - MATH 143, CS 112 or sufficient test scores
    - Credits: 4
  - EN 102 College Writing and Rhetoric
    - English 101 or sufficient test scores
    - Credits: 3
  - MATH 170 Calculus I
    - C or better in MATH 143 and 144 or sufficient test scores
    - Credits: 4
  - ISEM 101 Integrated Seminar
    - Credits: 3
  - ECE 101 Foundations of Electrical and Computer Engineering
    - MATH 143 or MATH 170
    - Credits: 2
  - Total Credits: 15

- **Spring**
  - MATH 175 Calculus II
    - MATH 170
    - Credits: 4
  - ENGR 220 Engineering Dynamics
    - ENGR 210
    - Credits: 3
  - MATH 275 Calculus III
    - MATH 175
    - Credits: 3
  - Total Credits: 17

#### Sophomore

- **Fall**
  - ECE 210/211 Electrical Circuits I with Lab
    - MATH 175, MATH 310, PHYS 212
    - Credits: 4
  - MATH 310 Ordinary Differential Equations
    - MATH 175 (MATH 275 recommended)
    - Credits: 3
  - PHYS 212/212L Engineering Physics II with Lab
    - PHYS 211, MATH 175
    - Credits: 4
  - ENGR 210 Engineering Statistics
    - MATH 170
    - Credits: 3
  - AMST 301 or PHIL 103 American Studies OR Philosophy Elective
    - Credits: 3
  - Total Credits: 17

- **Spring**
  - ECE 212/213 Electrical Circuits II with Lab
    - ECE 210/211, MATH 310, PHYS 212/212L
    - Credits: 4
  - ENGR 220 Engineering Dynamics
    - ENGR 210
    - Credits: 3
  - MATH 275 Calculus III
    - MATH 175
    - Credits: 3
  - Total Credits: 17

#### Junior

- **Fall**
  - ECE 310/311 Microelectronics I with Lab
    - ECE 212/213
    - Credits: 4
  - ECE 320,321 Energy Systems I with Lab
    - ECE 212/213, PHYS 212/212L, MATH 310
    - Credits: 4
  - ECE 330,331 Electromagnetic Theory with Lab
    - MATH 275, MATH 310 PHYS 212/212L
    - Credits: 4
  - ENGR 360 Engineering Economy
    - Junior standing
    - Credits: 2
  - ISEM 301 Integrated Seminar
    - ENGL 102, Sophomore standing
    - Credits: 1
  - Total Credits: 15

- **Spring**
  - ECE 340/341 Microcontrollers with Lab
    - ECE 212/213, ECE 240/241, and CS 112 or CS 120
    - Credits: 4
  - ECE 350/351 Signals and Systems I with Lab
    - ECE 212, MATH 310
    - Credits: 4
  - STAT 301 Probability & Statistics
    - MATH 175
    - Credits: 3
  - MATH 330 Linear Algebra
    - MATH 160 or MATH 170 (MATH 175 recommended)
    - Credits: 3
  - ENGR 320, 335, 350 or 428
    - Credits: 3
  - Total Credits: 16

#### Senior

- **Fall**
  - ECE 480 Electrical Engineering Senior Design I
    - ECE 240/241, ECE 310/311, ECE 320/321, ECE 330/331, ECE 340/341, ENGL 350/351 or permission, STAT 301
    - Credits: 3
  - ENGR 491 Senior Seminar (fall only)
    - P/F
    - Credits: 3
  - ENGL 317 Technical Writing
    - ENGL 102, Junior standing or permission
    - Credits: 3
  - ECE 481 Electrical Engineering Senior Design II
    - ECE 480, STAT 301 or permission
    - Credits: 3
  - Total Credits: 15

- **Spring**
  - † ELECTIVE Technical Elective
    - Credits: 3
  - † ELECTIVE Technical Elective
    - Credits: 3
  - † ELECTIVE Technical Elective
    - Credits: 3
  - † ELECTIVE Technical Elective
    - Credits: 3
  - † ELECTIVE Technical Elective
    - Credits: 3
  - Total Credits: 15

**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](http://uidaho.edu/registrar/classes/catalogs). Last updated 11/15/19

**Technical Electives**: Eighteen credits required and satisfy three conditions: (1) Nine credits (minimum) from the following ECE courses: 410 (S) or 416 (F), 420 (S), 430 (every third semester), 440 (S) or 443 (F), 450 (F) & 460 (F). (2) Three credits (minimum) from upper-division ECE courses. (3) The remaining six credits from upper-division ECE, and approved engineering, math, physics, and computer science courses.

**Humanities/Social Science Electives**: Must include AMST 301 or PHIL 103 and ECON 201, 202 or 272.
Design and evaluate circuits and systems for computers, robots, cell phones and large-scale communication systems, including renewable energy, complex power distribution and satellites.

ABOUT YOUR DEGREE PATH

Electrical Engineering majors are prepared with a broad knowledge in at least three of the following areas: microelectronics, power, electromagnetic, digital systems and signals and systems.

Design new products and learn how to solve problems waiting to be discovered. Teamwork is important, but you will also be able to confidently take on individual challenges and develop individual interests through a selection of technical electives.

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

MATCH YOUR INTERESTS

- Computers
- Renewable Energy
- Aerospace
- Computers and Hardware
- Satellites, Radar and Sonar
- Microchips and Microcircuits
- Power Systems
- Electromagnetics
- Automation and Control

YOUR DEGREE IS ACCREDITED

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