



Electrical Engineering Degree 2018-2019

To schedule an appointment with an academic advisor, please visit us at ECE.utah.edu/advising.
ALL MAJOR CLASSES MUST BE LETTER GRADED | CR/NC IS **NOT** AN OPTION

Pre-Electrical Core: 16 credits

ECE 1240 (4.0) – Introduction to ECE Design
ECE 1245 (0.5) – Introduction to ECE Design Lab
ECE 1050 (0.5) – MATLAB
PHYS 2210 (4.0) – Physics for Engineers I
Must be completed with a “C-” or higher
MATH 1210/1310 (4.0) – Calculus I
MATH 1220/1320 (4.0) – Calculus II
Must be completed with a “C” or higher

ADMISSION: Students should apply for admission to the B.S. Electrical Engineering program when they are taking their final pre-Electrical course(s) by submitting an online application at ece.utah.edu/admissions
Pre-major GPA: 2.8 or higher
Cumulative GPA: 2.8 or higher

TRANSFER CREDIT: Students who have transfer credit that may fulfill a B.S. Electrical Engineering requirement may petition for equivalency at ECE.utah.edu/transfer

Writing Core: 6 credits

WRTG 2010 (3.0) – Intermediate Writing
Will accept Honor 2211
ECE 3030 (3.0) – Technical Communications
Will accept Honor 3200

Math/Science Core: 19-20 credits

If students take MATH 1310/1320, then:
Math 3140 (4.0) – PDEs and Vector Calculus

If students take MATH 1210/1220, then:
Math 2210 (3.0) – Calculus III
Math 3150 (2.0) – Partial Differential Equations

All students must complete:
MATH 2250 (4.0) – Differential Equations/Linear Algebra
MATH 3160 (2.0) – Applied Complex Variables
PHYS 2220 (4.0) Physics for Engineers II

Then choose one additional science lecture and lab component:
CHEM 1210 (4.0) – General Chemistry
or
BIOL 1210 (4.0) – General Biology

and

CHEM 1215 (1.0) – General Chemistry Lab
or
PHYS 2215 (1.0) – Physics for Engineers I Lab
or
PHYS 2225 (1.0) – Physics for Engineers II Lab

Labs will count for 1.0 c/h of non-ECE technical elective credit

Major Requirements: 38 credits

LEAP 1500 (3.0) – LEAP Seminar in Humanities
LEAP 1501 (3.0) – Ethics in Engineering
CS 1410-040 (4.0) – Object-oriented Programming
ECE 1900 (1.0) – Freshman Seminar
ECE 2240 (4.0) – Circuits
ECE 2280 (4.0) – Electronics Fundamentals
ECE 3200 (4.0) – Semiconductor Devices
ECE 3300 (4.0) – EM & Transmission Lines
ECE 3500 (4.0) – Signals & Systems
ECE 3530 (3.0) – Engineering Probability & Statistics
ECE 3700 (4.0) – Digital System Design

Capstone Experience: 6 credits

ECE 3900 (1.0) – Junior Seminar
ECE 4900 (2.0) – Senior Thesis I
ECE 4910 (3.0) – Senior Thesis II

Advanced Technical Electives: 27 credits

Pick 3 Breadth Electives

Electronics & Semiconductor Dev.

ECE 3110

Microwaves & Optics

ECE 5320, 5324, 5325, 5330, 5340, 5410

Signals & Systems

CE 3510, 5510, 5530

Computer & Digital Design

ECE 3810

Power, Energy, & Control

ECE 3600

Then pick additional classes to total 27 credits:

ECE 3xxx or higher, not already required

General Education: 15-18 credits

American Institutions

ECON 1740, HIST 1700 or POLS 1100

Fine Arts 1 (FF)

Fine Arts 2 (FF)

Humanities 1 (HF)

Satisfied by LEAP 1500 (3.0)

Humanities 2 (HF)

Behavioral Science 1 (BF)

Satisfied by LEAP 1501 (3.0)

Behavioral Science 2 (BF)

Diversity (DV)

Satisfied by LEAP 1500 (3.0)

International Requirement (IR)

Departmental Requirements

2.5 Cumulative GPA (all U of U courses)
2.5 Technical GPA (all U of U ECE and CS courses)
Total degree hours: 126-130