



Electrical Engineering Degree (Fall 2022 and later)

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-major requirements: 4 credits

MATH 1210/1310 (4.0) – Calculus I
Cumulative GPA: 2.8 or higher

ADMISSION: Students should apply for admission to the B.S. Electrical Engineering program. Students will be Pre-Electrical Engineering Status until they have completed the pre-major requirements. When they are taking their final pre-Electrical course(s), they can apply for full major status 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: 25 credits

All students must complete:
MATH 1220/1320 (4.0) – Calculus II

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
ECE 3530 (3.0) – Engineering Probability & Statistics
PHYS 2210 (4.0) – Physics for Engineers I
PHYS 2220 (4.0) Physics for Engineers II

Then choose one additional math/science elective.
Valid electives include MATH, PHYS, CHEM, BIO classes (>1210 level) or CS 2100.
Must have minimum of 29 credit hours of math and science.

Core Requirements: 27-31 credits

ECE 1900 (1.0) – Freshman Seminar
ECE 1240 (4.0) – Circuits & Systems I
ECE 1245 (0.5) – Circuits & Systems I Lab
ECE 1050 (0.5) – MATLAB
LEAP 1500 (3.0) – LEAP Seminar in Humanities
LEAP 1501 (3.0) – Ethics in Engineering
CS 1400 (4.0) & CS 1410 (4.0) –Intro to Computer Programming OR **CS 1420** (4.0) – Accelerated Object-oriented Programming
ECE 2240 (3.0) – Circuits & Systems II
ECE 2245 (1.0) – Circuits & Systems II Lab
ECE 2280 (3.0) – Circuits & Systems III
ECE 2285 (1.0) – Circuits & Systems III Lab
ECE 3530 (3.0) – Engineering Probability & Statistics

Capstone Experience: 9 credits

ECE 3900 (1.0) – Junior Seminar
ECE 4900 (4.0) – Senior Thesis I
ECE 4910 (4.0) – Senior Thesis II

Breadth Electives: 15-16 credits

Pick 4 Breadth Electives

ECE 3110 (4.0) Engineering Electronics II
ECE 3200 (3.0) Semiconductor Devices
ECE 3300/3305 (4.0) Electromagnetics*
ECE 3500 (4.0) Signals and Systems*
ECE 3510 (4.0) Intro Feedback Systems
ECE 3600 (4.0) Intro Electric Power Engineering
ECE 3700 (4.0) Digital System Design*
ECE 3810 (4.0) Computer Architecture*

* take 1 starred class to fulfill QI

Breadth credit hours are included in technical electives below.

Technical Electives: 33 credits

Pick additional ECE 3000 level or higher classes to total 33 credits:

- Need 3 credit hours ECE 5000 level or higher
- Includes breadth electives taken above
- Up to 9 credit hours of approved non-ECE TE
- Up to 8 credit hours of research and other special topics

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)

* certain classes fulfill both IR and HF, FF or BF

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: 122