



# Electrical Engineering Degree Requirements 2025-2026

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

## Math/Science Core: 30 credits (min.)

Complete ONE of the following MATH Pathways:

Traditional Math: with a "C" or higher:

**MATH 1210** (4.00) - Calculus I

**MATH 1220** (4.00) - Calculus II

**MATH 2210** (3.00) - Calculus III

**MATH 2270** (4.00) - Linear Algebra AND **2280** (4.00)- Differential Equations  
(OR Math 2250 (4.00) - Differential Equations & Linear Algebra)

Engineering Math: with a "C" or higher:

**MATH 1310** (4.00) - Calculus I

**MATH 1320** (4.00) - Calculus II

**MATH 2270** (4.00) - Linear Algebra AND **2280** (4.00)- Differential Equations  
(OR MATH 2250 (4.00) - Differential Equations & Linear Algebra)

**MATH 2310** (1.00) - Vector Calculus for Engineers

(OR MATH 3140 (4.00) - PDEs and Vector Calculus)

Complete the following with a "C-" or higher:

**PHYS 2210** (4.00) - Physics for Engineers I

**PHYS 2220** (4.00) - Physics for Engineers II

**ECE 3530 OR CS 3130** (3.00) - Engineering Probability & Statistics

Complete Additional Math/Sci Elective (0-7 credits): BIOL/CHEM/MATH/PHYS

1210 or higher level, CS 3200, or LS course

## Writing Core: 3 - 6 credits

**ECE 3030/3031** (3.00) - Technical Communication and Writing for Engineers

OR HONOR 3200 (3.00) - Research University

OR WRTG 3015 (3.00) - Professional Writing AND **COMM 1020** (3.00) - Public Speaking

## Core Course Requirements: 14 - 17 credits

Complete the following with a "C-" or higher:

**ECE 1220** (3.00) - Introduction to Circuits

**ECE 1230** (2.00) - Circuits & Systems I Lecture

**ECE 1235** (1.00) - Circuits & Systems I Lab

**ECE 2280** (3.00) - Circuits & Systems II Lecture

**ECE 2285** (1.00) - Circuits & Systems: Active- Lab

**ECE 3500** (3.00) - Signals & Systems Lecture

**ECE 3505** (1.00) - Signals & Systems Lab

**Ethics (3.00):** *recommend QUEST 1120 or 1130*

## Programming Requirements: 4 - 8 credits

Complete the following with a "C-" or higher:

**CS 1400** (4.00) - Object-oriented Programming (Java)

**AND**

**CS 1410** (4.00) - Object-oriented Programming (Python)

(OR CS 1420 (4.00) - Accelerated Object-oriented Programming (Java & Python))

## Capstone Experience: 9 credits

**ECE 3900** (1.00) - Junior Seminar

**ECE 4900** (4.00) - Senior Clinic I

**ECE 4910** (4.00) - Senior Clinic II

**OR**

**ECE 4998** (4.00) - Senior Thesis I, Honors

**ECE 4999** (4.00) - Senior Thesis II, Honors

### **Breadth Electives: 2 courses (6-8 credits)**

Complete at least 2 courses from 2 different sub-areas from the list below with a "C-" or higher:

Circuits & Systems/Solid State/MEMS:  
ECE 3110 **OR** ECE 3200

Electromagnetics & Optics:  
ECE 3300 (Lecture) **AND** ECE 3305 (Lab)

Power/Control/Robotics:  
ECE 3600 **OR** ECE 3610 **OR** ECE 5615

Digital Design/Computer Engineering:  
ECE/CS 3700 **OR** ECE/CS 3810

### **Technical Electives: 21 credits (min)**

15.00 credit hours completed with a "C-" or higher:

- 1 ECE course 5\*\*\* level DEPTH (3.00-4.00)
- 3 ECE courses 3\*\*\* level and above (9.00-12.00)
- 1 "unrestricted" ECE course 3\*\*\* level and above (3.00)  
Ex. ECE 3970/3980/3990 Any ECE class 3000 level or above including courses that are a minimum of 1 credit hour.

Remaining T.E. Credit: 6.00

- Complete a minimum of 2 classes and meet the 120 hour requirement additional technical electives (D- minimum):
  - Ex. CS 1400, BIOL 1010, etc.
  - Any ECE, Engineering, Computer Science, Math, or Science class taken to count for a minor or certificate such as the Engineering Entrepreneurship courses, CS minor, Robotics minor, Systems Engineering certificate, PreMed track, etc.
  - Any Engineering, Math, or Science, or HNKLY internship

### **General Education: 39-42 credits**

**First Experience (FE)** - 1 course (completed in one of the first two semesters, recommend QUEST 1120 or 1130)

**American Institutions** - 1 course

**Writing 1 (WR1)** - 1 course (WRTG 1010 or WRTG 1009- international students)

**Writing 2 (WR2)** - 1 course

**\*Quantitative Literacy (QL)** - 1 course (Completed with required MATH course)

**Humanities (HF)** - 1 course

**Fine Arts (FF)** - 1 course

**\*Life Science (LS)** - 1 course (Contributes to Add'l. Math/Sci Elective)

**\*Physical Science (PS)** - 1 course (Completed with required PHYS courses)

**Social Science (BF)** - 1 course

**\*Upper-Division Writing (CW)** - 1 course (Completed w/ ECE 3030 or WRTG 3015)

**Diversity (DV)** - 1 course

**International Requirement (IR)** - 1 course (Recommend ECE 1030)

**\*Quantitative Intensive (QI)** - 1 course (Completed w/ ECE 3700 or ECE 3530)

*\*Some requirements are fulfilled through major required courses*

### **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: 120 minimum – Total Upper-Division hours: 40 minimum