



Electrical Engineering Degree Requirements 2025-2026

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

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 (3.0)- Calculus III

Math 2270 (4.00)- Linear Algebra and **2280** (4.00)- Differential Equations

(**OR Math 2250** (4.00)- Differential Equations & Linear Algebra)

Math 3150 (2)- Partial Differential Equations

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 3140 (4)- Vector Calculus & Partial Differential Equations

Additional Math/Sci Elective (3-4 credits):

Math/Phys/Chem/Biol 1210 or higher level, CS 3200, or LS course

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

PHYS 2210 (4.00)- Physics for Engineers I

- **PHYS 2215 (1.00)**-Physics for Engineers I LAB

PHYS 2220 (4.00)- Physics for Engineers II

PHYS 2225 (1.00)- Physics for Engineers II LAB

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

Writing Core: 3 - 6 credits

ECE 3030/3031 (3.00) – Technical Communications for Engineers

OR

HONOR 3200 (3.00)- Research University

OR

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

Core Course Requirements: 3 - 6 credits

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

ECE 1220 (3.00) – Introduction to ECE/ Circuits & Systems

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

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)- Object-oriented Programming (Java & Python)]

ETHICS- 1 course (3.00)

Capstone Experience: 7-9 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:

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 (3.00/21.00)
- 3 ECE courses 3*** level and above (12.00/21.00)
- 1 "unrestricted" ECE course 3*** level and above (15.00/21.00)
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 (21.00/21.00)

- 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: 39-40 credits

American Institutions- 1 course

Writing 1 (WR1)- 1 course

WRTG 1010 or WRTG 1009, international students

Writing 2 (WR2)- 1 course

WRTG 2010, ENGL 2010, ENGL 2211, or HONOR2211

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

Humanities (HF)- 1 course

Fine Arts (FF)- 1 course

***Life Science (LS)-** 1 course (Completed with required Addt. 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 (Recommended w/ ECE 1030)

***Methods Requirement (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