Computer 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(4.0)- Calculus I
Math 1220(4.0)- Calculus II
Math 2210 (3.0)- Calculus III
Math 2270 (4.0)- Linear Algebra and **2280** (4.0)- Differential Equations
(OR Math 2250 (4.0)- Differential Equations & Linear Algebra)

Engineering Math: with a "C" or higher:

Math 1310 (4.0)- Calculus I
Math 1320 (4.0)- Calculus II
Math 2270 (4.0)- Linear Algebra and **2280** (4.00)- Differential Equations
(OR Math 2250 (4.00)- Differential Equations & Linear Algebra)

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 (4.0)- Physics for Engineers I
- **PHYS 2215 (1.0)**-Physics for Engineers I LAB

PHYS 2220 (4.0)- Physics for Engineers II
PHYS 2225 (1.0)- Physics for Engineers II LAB

ECE 3530 OR **CS 3130** (3.0)- Probability & Statistics
CS 2100 (Discrete Structures, 3.0) OR **MATH 2200** (Discrete Math, 3.0)

Writing Core: 3 - 6 credits

ECE 3030/3031 (3.0) – Technical Communications for Engineers
OR
HONOR 3200 (3.0)- Research University
OR
WRTG 3015 (3.0)-Professional Writing **& COMM 1020** (3.00)-Public Speaking

Computer Science Core Courses: 15-19

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

CS 1400 (4.0) – Object-oriented Programming (Java)
AND
CS 1410 (4.0) – Object-oriented Programming (Python)
[OR CS 1420 (4)- Object-oriented Programming (Java & Python)]
CS 2420 (4.0) – Algorithms & Data Structures
CS 3500 (4.0) – Software Practice
CS 4400 (3.0) –Computer Systems

Electrical Engineering Core Courses: 24 credits

ECE 1220 (3.0) – Introduction to ECE/ Circuits & Systems
ECE 1230 (2.0) – Circuits & Systems I Lecture
ECE 1235 (1.0)– Circuits & Systems I Lab
ECE 2280 (3.0) – Circuits & Systems II Lecture
ECE 2285 (1.0)- Circuits & Systems II Lab
CS/ECE 3700 (4.0) – Digital Design
CS/ECE 3710 (3.0) – Digital System Design Lab
CS/ECE 5780 (4.0) – Embedded System Design
CS/ECE 3810 (3.0) – Computer Organization
ETHICS- 1 course (3.0)

Capstone Experience: 7-9 credits

CS/ECE 3991 (1.0) – Junior Seminar

Computer Engineering Traditional Pathway:
CS/ECE 3992 (3.0) – Pre-Thesis/Clinic
CS/ECE 4710 (3.0) – Senior Project

CE Research Pathway:
CS/ECE 3992 (3.0) – Pre-Thesis/Clinic
CS/ECE 4991 (2.0)- Research Part I
CS/ECE 4992 (2.0) – Research Part II

HONORS Pathway:
CS/ECE 4998 (4.0) – Senior Thesis I, Honors
CS/ECE 4999 (4.0) – Senior Thesis II, Honors

CLINIC Pathway:
ECE 4900 (4.0) – Senior Clinic I
ECE 4910 (4.0) – Senior Clinic II

Technical Electives: 9 credits

Select CS OR ECE 3*** level or higher courses
NOT used in your major requirements or core courses
NOT on the exclusion list
At least 3.00 credit hours each

Totaling 9 credit hours minimum- need 120.00 total

Additional T.E. Credit:
Complete courses to meet the 120 hour requirement additional technical electives (D- minimum):

- EX.) CS 1400, BIOL 1010, etc.
- Any ECE, CS, Engineering, 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/ECE 3031)

Diversity (DV)- 1 course

International Requirement (IR)- 1 course (Recommended w/ ECE 1030)

***Methods Requirement (QI)-** 1 course (Completed w/ ECE 3530)

Some requirements are fulfilled through major required courses

Departmental Requirements for Graduation

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