



Computer Engineering Degree 2021-2022

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-Computer Engineering Core: 27 credits

ECE 1240 (3) – *Introduction to Circuit Design*
ECE 1245 (.5) – *Introduction to Circuit Design Lab*
ECE 1050 (.5) – *MATLAB for ECE Design*
PHYS 2210 (4) – *Physics for Engineers I*
CS 1420 (4) – *Object-Oriented Programming*
CS 2420 (4) – *Algorithms & Data Structures*
WRTG 2010 (3) – *Intermediate Writing*
Must be completed with a “C-” or higher

MATH 1210/1310 (4) – *Calculus I*
MATH 1220/1320 (4) – *Calculus II*
Must be completed with a “C” or higher

ADMISSION: Students should apply for admission to the B.S. Computer Engineering program when they are taking their final pre-CE course(s) by submitting an online application at ece.utah.edu/admissions
Pre-Major GPA: 3.0 or higher
Cumulative GPA: 2.5 or higher

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

Writing Core: 3 credits

ECE 3030 (3) – *Technical Communications & Writing for Engineers*
Will accept HONOR 3200

Math & Science Core: 17-18 credits

If students take MATH 1310/1320, then choose one:

Math 3140 (4) – *PDEs and Vector Calculus*
Math 5600 (4) – *Survey of Numerical Analysis*
CS 3200 (3) – *Scientific Computing*
ECE 3740 (3) – *Quantum Theory & Relativity*
CHEM 1210 (4) – *General Chemistry I*
BIOL 1610 (4) – *Fundamental Principles of Biology I*

If students take MATH 1210/1220, then:

Math 2210 (3.0) – *Calculus III*

All students must complete:

MATH 2250 (4) – *Differential Equations/Linear Algebra*
PHYS 2220 (4) – *Physics for Engineers II*
CS 2100 (3) – *Discrete Structures*
ECE 3530 (3) – *Engineering Probability & Statistics*

Major Requirements: 39 credits

LEAP 1501 (3) – *Ethics in Engineering*
CS 1420 (4) – *Object-Oriented Programming*
ECE 1900 (1) – *Freshman Seminar (Intro to ECE)*
ECE 2240 (3) – *Intro to Electric Circuits*
ECE 2245 (1) – *Intro to Electric Circuits Lab*
ECE 2280 (3) – *Fundamentals of Engineering Electronics*
ECE 2285 (1) – *Fundamentals of Engineering Electronics Lab*
CS 3500 (3) – *Software Practice*
CS 4400 (4) – *Computer Systems*
CS/ECE 3700 (4) – *Digital System Design*
CS/ECE 3710 (4) – *Computer Design Lab*
CS/ECE 5780 (4) – *Embedded System Design*
CS/ECE 3810 (4) – *Computer Organization*

Capstone Experience: 7-9 credits

CS/ECE 3991 (1) – *Junior Seminar*
CS/ECE 3992 (3) – *Pre-Thesis/Clinic*

CS/ECE 4710 (3) – *Senior Project*
or
CS/ECE 4991 (2) – *Senior Thesis I*
CS/ECE 4992 (3) – *Senior Thesis II*
or
ECE 4900 (2) – *Senior Clinic I*
ECE 4910 (3) – *Senior Clinic II*

Advanced Technical Electives: 18 credits

Select CS/ECE 3xxx or higher courses totaling 18 credits
EAE classes are **not** permitted

General Education: 18-24 credits

American Institutions (AI)

ECON 1740 *US Economic History*
HIST 1700 *American History*
or
POLS 1100 *U.S. National Government*

Fine Arts 1 (FF)

Fine Arts 2 (FF)

Humanities 1 (HF)

Humanities 2 (HF)

Behavioral Science 1 (BF) Satisfied by LEAP 1501

Behavioral Science 2 (BF)

Diversity Requirement (DV)

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: 127-136