ELECTRICAL & COMPUTER ENGINEERING (BS)
Colorado Mesa University/University of Colorado Boulder Partnership 2024 – 2025

Semester   **Credits**

Semester 1 — 17 credits
- **F S MATH 135** — 4 — * Engineering Calculus I
- **F S PHYS 131** — 4 — * Fundamentals of Mechanics
- **F S PHYS 131L** — 1 — Fundamentals of Mechanics Laboratory
- **F ENGR 101** — 1 — Introduction to Engineering
- **F S CSCI 111** — 4 — * CS1: Foundations of Computer Science
- **F S H&SS** — 3 — Humanities/Social Science Elective **SOCI120 recommended**

Semester 2 — 16 credits
- **F S MATH 136** — 4 — * Engineering Calculus II
- **F S PHYS 132** — 4 — * Electromagnetism & Optics
- **F S PHYS 132L** — 1 — * Electromagnetism & Optics Laboratory
- **S ENGR 140** — 3 — First-Year Projects (Prerequisite is MATH 119 with "C" or better)
- **F S CSCI 112** — 4 — * CS2: Data Structures

Semester 3 — 17 credits
- **F S MATH 236** — 4 — * Differential Equations & Linear Algebra
- **F EECE 225** — 3 — * Introduction to Circuits and Electronics
- **F EECE 225L** — 1 — * Introduction to Circuits and Electronics Lab
- **F EECE 235** — 3 — * Digital Logic
- **F EECE 337** — 3 — * Embedded Software Engineering
- **F S MATH 369** — 3 — Discrete Structures I

Semester 4 — 17 credits
- **F S MATH 253** — 4 — * Calculus III
- **S EECE 226** — 3 — * Circuits as Systems
- **S EECE 226L** — 1 — * Circuits as Systems Lab
- **S EECE 244** — 3 — Application of Embedded Systems
- **F S Science** — 3 — General Science Elective (see Program Sheet)
- **F S H&SS** — 3 — Humanities/Social Science Elective

Semester 5 — 16 credits
- **F ECEN 3250** — 3 — * Microelectronics
- **F ECEN 2360** — 3 — * Programming Digital Systems
- **F ECEN 2000** — 1 — ECE as a Profession
- **F ECEN 3810** — 3 — Introduction to Probability Theory
- **F S Software** — 3 — Software Elective
- **F S H&SS** — 3 — Humanities/Social Science Elective

Semester 6 — 15 credits
- **S ECEN 3300** — 3 — * Linear Systems
- **S ECEN 3593** — 3 — Computer Organization
- **S ECEN 3753** — 3 — * Real-Time Operating Systems
- **F S Free Elective** — 3
- **F S ENGL 325** — 3 — * Writing for Engineers (or equivalent CU Boulder course)

Semester 7 — 15 credits
- **F ELECTIVE** — 3 — Advanced Concentration Elective (see Program Sheet)
- **F ECEN 4610** — 3 — Capstone Laboratory Part 1
- **F S Tech Elective** — 3 — (CVEN, ECEN, EMEN, or MCEN)
- **F S Tech Elective** — 3 — (CVEN, ECEN, EMEN, or MCEN)
- **F S UD H&SS** — 3 — Upper-Division Humanities/Social Science Elective

Semester 8 — 15 credits
- **S ELECTIVE** — 3 — Advanced Concentration Elective (see Program Sheet)
- **S ECEN 4620** — 3 — Capstone Laboratory Part 2
- **F S Tech Elective** — 3 — (CVEN, ECEN, EMEN, or MCEN)
- **F S Tech Elective** — 3 — (CVEN, ECEN, EMEN, or MCEN)
- **F S UD H&SS** — 3 — Upper-Division Humanities/Social Science Elective

45 credits must be taken from CU Boulder

Prerequisite →   Co-/Pre-requisite ⇢   *Complete before ECEN 4610

CMU Course | CU Course | **F** offered in Fall | **S** offered in Spring | **TOTAL CREDITS = 128**