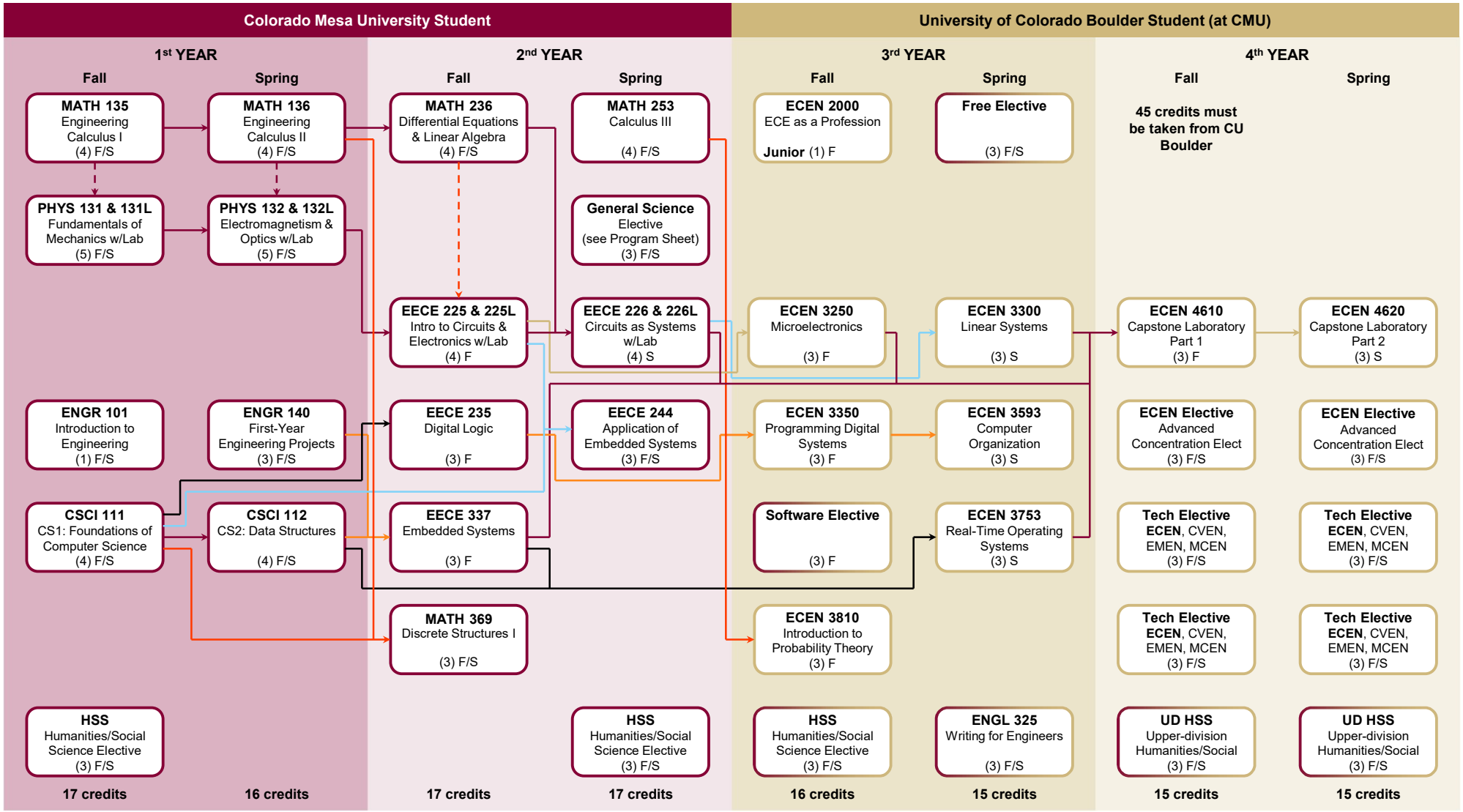
ELECTRICAL & COMPUTER ENGINEERING (BS)

Partnership Program

2025 – 2026

Colorado Mesa University

University of Colorado Boulder



An accessible version of this flow chart is available on the following pages.

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Semester 1 (Fall)					
Courses		**Credits**	**Semester**	**Pre-requisites, co-requisites, or notes**	**Post-requisites**
MATH 135	Engineering Calculus I (sub: MATH 151)	4	Fall/Spring	MATH 119, or MATH 119A and MATH 119B, or math placement score	MATH 136, Co: PHYS 131, [CSCI 130]
PHYS 131 PHYS 131L	Fundamentals of Mechanics Fundamentals of Mechanics Lab	4 1	Fall/Spring Fall/Spring	MATH 151 or MATH 135 (either may be taken concurrently)	PHYS 132, 132L
ENGR 101	Introduction to Engineering	1	Fall		
CSCI 111	CS1: Foundations of Computer Science (Sub: CSCI 130)	3	Fall/Spring	CSCI 110 or MATH 113 or MATH 119A	CSCI 112, EECE 235, 244, MATH 369
	Humanities/Social Science Elective	3	Fall/Spring	approved elective	
	TOTAL	17			

Semester 2 (Spring)					
Courses		**Credits**	**Semester**	**Pre-requisites, co-requisites, or notes**	**Post-requisites**
MATH 136	Engineering Calculus II (sub: MATH 152)	4	Fall/Spring	MATH 135 or MATH 151	MATH 236, 369, Co: PHYS 132
PHYS 132 PHYS 132L	Electromagnetism & Optics Electromagnetism & Optics Lab	4 1	Fall/Spring Fall/Spring	PHYS 131/PHYS 131L, and MATH 152 or MATH 136 (either may be taken concurrently)	EECE 225/225L
ENGR 140	First-Year Engineering Projects	3	Fall/Spring	MATH 119; or MATH 119A and MATH 119B	EECE 337
CSCI 112	CS2: Data Structures	4	Fall/Spring	CSCI 111 or CSCI 130	EECE 337, ECEN 3753
	TOTAL	16			

Semester 3 (Fall)					
Courses		**Credits**	**Semester**	**Pre-requisites, co-requisites, or notes**	**Post-requisites**
MATH 236	Differential Equations & Linear Algebra	4	Fall/Spring	MATH 152 or MATH 136	EECE 226/226L Co: EECE 225/225L
EECE 225 EECE 225L	Intro to Circuits & Electronics Intro to Circuits & Electronics Lab	3 1	Fall Fall	PHYS 132/PHYS 132L; and MATH 236 (can be taken concurrently)	EECE 226/226L, 244 ECEN 3250
EECE 235	Digital Logic	3	Fall	CSCI 111 or CSCI 130	ECEN 3350
EECE 337	Embedded Systems	3	Fall	CSCI 112 and ENGR 140	ECEN 3753, 4610
MATH 369	Discrete Structures I	3	Fall/Spring	MATH 152 or MATH 136; and CSCI 111 or CSCI 130	
	TOTAL	17			

Semester 4 (Spring)					
Courses		**Credits**	**Semester**	**Pre-requisites, co-requisites, or notes**	**Post-requisites**
MATH 253	Calculus III	4	Fall/Spring	MATH 136 or MATH 152	ECEN 3810
EECE 226 EECE 226L	Circuits as Systems Circuits as Systems Lab	3 1	Spring Spring	EECE 225 and MATH 236	ECEN 3300, 4610
EECE 244	Application of Embedded Systems	3	Spring	CSCI 111 or CSCI 130; and EECE 225/EECE 225L	
	General Science Elective	3	Fall/Spring	see Program Sheet	
	Humanities/Social Science Elective	3	Fall/Spring	approved elective	
	TOTAL	17			

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Semester 5 (Fall)					
Courses		**Credits**	**Semester**	**Pre-requisites, co-requisites, or notes**	**Post-requisites**
ECEN 2000	Electrical & Computer Engineering as a Prof	1	Fall	Restricted to students with at least 27 credits (Sophomores, Juniors or Seniors)	
ECEN 3250	Microelectronics	3	Fall	EECE 225	ECEN 4610
ECEN 3350	Programming Digital Systems	3	Fall	EECE 235	ECEN 3593
ECEN 3810	Introduction to Probability Theory	3	Fall	MATH 253	
	Software Elective	3	Fall/Spring	see Program Sheet	
	Humanities/Social Science Elective	3	Fall/Spring	approved elective	
	TOTAL	16			

Semester 6 (Spring)					
Courses		**Credits**	**Semester**	**Pre-requisites, co-requisites, or notes**	**Post-requisites**
ECEN 3300	Linear Systems	3	Spring	EECE 226	ECEN 4610
ECEN 3593	Computer Organization	3	Spring	EECE 226 or ECEN 3350	
ECEN 3753	Real-Time Operating Systems	3	Spring	EECE 337, CSCI 112	ECEN 4610
	Free Elective	3	Fall/Spring	MATH 236 Co: ENGL 325, MCEN 3017, 3030	
ENGL 325	Writing for Engineers	3	Fall/Spring	or equivalent CU Boulder course such as ENES 3100, ENLP 3100, WRTG 3030, WRTG 3035, or PHYS 3050	
	TOTAL	15			

Semester 7 (Fall)					
Courses		**Credits**	**Semester**	**Pre-requisites, co-requisites, or notes**	**Post-requisites**
ECEN 4610	Capstone Laboratory Part 1	3	Fall	EECE 226, 237, (ECEN 3250 3300) or (ECEN 3753 3250) or (ECEN 3753 3300)	ECEN 4610
ECEN	Advanced Concentration Elective	3	Fall/Spring	Most ECEN electives have 3000-level pre-requisites	
	Technical Elective	3	Fall/Spring	Can be ECEN, CVEN, ECEN, EMEN 3000- or 4000-level	
	Technical Elective	3	Fall/Spring	Can be ECEN, CVEN, ECEN, EMEN 3000- or 4000-level	
	Upper-division Humanities/Social Science Elect	3	Fall/Spring	3000- or 4000-level approved elective	
	TOTAL	15			

Semester 8 (Spring)					
Courses		**Credits**	**Semester**	**Pre-requisites, co-requisites, or notes**	**Post-requisites**
ECEN 4620	Capstone Laboratory Part 2	3	Spring	ECEN 4620	
ECEN	Advanced Concentration Elective	3	Fall/Spring	Most ECEN electives have 3000-level pre-requisites	
	Technical Elective	3	Fall/Spring	Can be ECEN, CVEN, ECEN, EMEN 3000- or 4000-level	
	Technical Elective	3	Fall/Spring	Can be ECEN, CVEN, ECEN, EMEN 3000- or 4000-level	
	Upper-division Humanities/Social Science Elect	3	Fall/Spring	3000- or 4000-level approved elective	
	TOTAL	15			