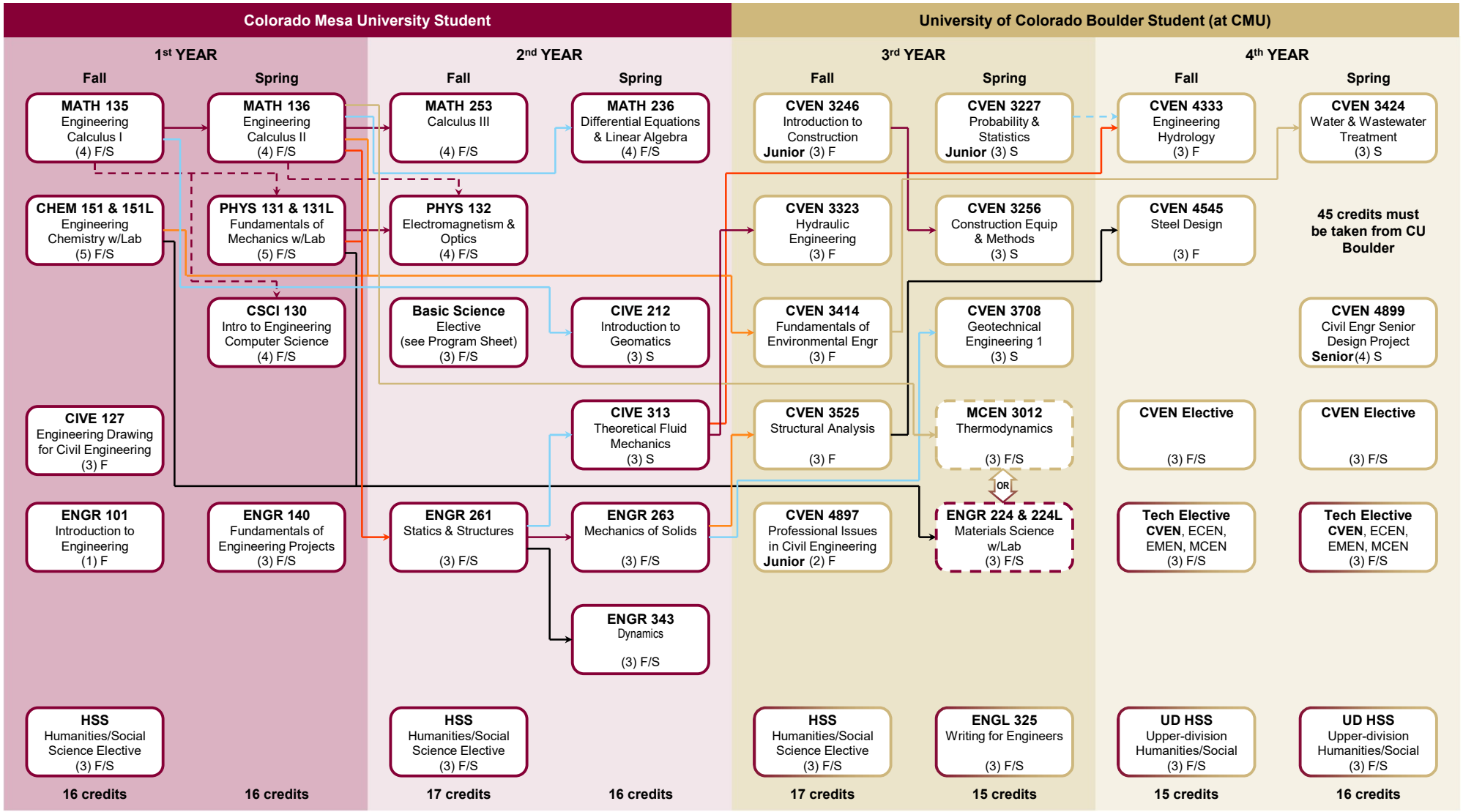
CIVIL ENGINEERING (BS)

Partnership Program

2026 – 2027

Colorado Mesa University

University of Colorado Boulder



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

CIVIL ENGINEERING (BS) Partnership Program

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, CIVE 212 Co: PHYS 131, CSCI 130
CHEM 151	Engineering Chemistry (sub: CHEM 131)	4	Fall/Spring	MATH 113 or higher or concurrently enrolled in MATH 119, MATH 119B, MATH 135, or MATH 151; CHEM 111 or chem placement exam	CVEN 3414, ENGR 224, 224L
CHEM 151L	Engineering Chemistry Lab (sub: CHEM 131L)	1	Fall/Spring		
CIVE 127	Engineering Drawing for Civil Engineering	3	Fall		
ENGR 101	Introduction to Engineering	1	Fall		
	Humanities/Social Science Elective	3	Fall/Spring	approved elective	
	TOTAL	16			

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, 253, ENGR 261, CVEN 3414, MCEN 3012, Co: PHYS 132
PHYS 131	Fundamentals of Mechanics	4	Fall/Spring	MATH 151 or MATH 135 (either may be taken concurrently)	PHYS 132, ENGR 224, 261
PHYS 131L	Fundamentals of Mechanics Lab	1	Fall/Spring		
CSCI 130	Intro to Engineering Computer Science	4	Fall/Spring	MATH 135 or MATH 151 (either may be taken concurrently)	
ENGR 140	Fundamentals of Engineering Projects	3	Fall/Spring	MATH 119; or MATH 119A and MATH 119B; or MATH 135 or MATH 151 (taken concurrently)	
	TOTAL	16			

Semester 3 (Fall)

Courses		Credits	Semester	Pre-requisites, co-requisites, or notes	Post-requisites
MATH 253	Calculus III	4	Fall/Spring	MATH 136 or MATH 152	
PHYS 132	Electromagnetism & Optics	4	Fall/Spring	PHYS 131/PHYS 131L, and MATH 152 or MATH 136 (either may be taken concurrently). PHYS 132L is not required.	ENGR 224
	Basic Science Elective	3	Fall/Spring	see Program Sheet	
ENGR 261	Statics & Structures	3	Fall/Spring	MATH 136 or MATH 152, and PHYS 131/PHYS 131L	CIVE 313, ENGR 263, 343
	Humanities/Social Science Elective	3	Fall/Spring	approved elective	
	TOTAL	17			

Semester 4 (Spring)

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	
CIVE 212	Introduction to Geomatics	3	Spring	MATH 151 or MATH 135	
CIVE 313	Theoretical Fluid Mechanics (Sub: MCEN 3021)	3	Spring	ENGR 261	CVEN 3323, 4333
ENGR 263	Mechanics of Solids	3	Fall/Spring	ENGR 261	CVEN 3525, 3708
ENGR 343	Dynamics	3	Fall/Spring	ENGR 261	
	TOTAL	16			

CIVIL ENGINEERING (BS) Partnership Program

Semester 5 (Fall)

Courses		Credits	Semester	Pre-requisites, co-requisites, or notes	Post-requisites
CVEN 3246	Introduction to Construction	3	Fall	Restricted to junior or senior Civil Engineering majors	CVEN 3256
CVEN 3323	Hydraulic Engineering	3	Fall	CIVE 313 or MCEN 3021	
CVEN 3414	Fundamentals of Environmental Engineering	3	Fall	CHEM 151/151L or 131/131L	CVEN 3424
CVEN 3525	Structural Analysis	3	Fall	ENGR 263	CVEN 4545
CVEN 4897	Professional Issues in Civil Engineering	2	Fall	Restricted to students with 87-180 credits (Seniors)	
	Humanities/Social Science Elective	3	Fall/Spring	approved elective	
	TOTAL	17			

Semester 6 (Spring)

Courses		Credits	Semester	Pre-requisites, co-requisites, or notes	Post-requisites
CVEN 3227	Probability & Statistics	3	Spring	Restricted to students with 57-180 credits (Junior or Senior)	Co: CVEN 4333
CVEN 3256	Construction Equip & Methods	3	Spring	CVEN 3246	
CVEN 3708	Geotechnical Engineering 1	3	Spring	ENGR 263	
MCEN 3012	Thermodynamics	3	Fall/Spring	MATH 136 or MATH 152	
or					
ENGR 224	Materials Science	2	Fall/Spring	CHEM 151/CHEM 151L or CHEM 131/CHEM 131L;	
ENGR 224L	Materials Science	1	Fall/Spring	and PHYS 131/PHYS 131L	
ENGL 325	Writing for Engineers	3	Fall/Spring	or equivalent CU Boulder course such as ENES 2010, 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
CVEN 4333	Engineering Hydrology	3	Fall	CIVE 313 or MCEN 3021, Co: CVEN 3227	
CVEN 4545	Steel Design	3	Fall	CVEN 3525	
CVEN	Elective	3	Fall/Spring	Most CVEN electives have 3000-level pre-requisites	
	Technical Elective	3	Fall/Spring	Can be CVEN, ECEN, EMEN, or MCEN 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
CVEN 3424	Water & Wastewater Treatment	3	Spring	CVEN 3414	
CVEN 4899	Civil Engineering Senior Design Project	4	Spring	Restricted to students with 87-180 credits (Senior)	
CVEN	Elective	3	Fall/Spring	Most CVEN electives have 3000-level pre-requisites	
	Technical Elective	3	Fall/Spring	Can be CVEN, ECEN, EMEN, or MCEN 3000- or 4000-level	
	Upper-division Humanities/Social Science Elect	3	Fall/Spring	3000- or 4000-level approved elective	
	TOTAL	16			