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Standard Course Substitutions

- MCEN1024 –CHEN 1211 & CHEM 1221 (CHEM1113&1114 approved for transfer students)
- CSCI 1320 – ECEN1310, or CSCI 1300
- GEEN 1400 – ASEN 1400, ECEN 1400, GEEN 2400, or GEEN 3400 (COEN 1400 approved for transfer students)

Writing Requirement

The Writing Requirement can be fulfilled by HUEN1010 (freshmen only), HUEN3100, WRTG3035, or WRTG3030.

Humanities & Social Science Electives

Please see <http://www.colorado.edu/engineering-advising/get-your-degree/degree-requirements/humanities-social-sciences-and-writing-requirements>.

Math/Science Foundation Options

APPM3310, ASTR3720, ATOC4720, CSCI2270, CHEM3311&3321, CVEN4424, PHYS2130, PHYS2170, ECEN2260&2270 (ECEN Minors Only), or MATH2001 (MATH Minors Only).

General Technical Electives

3000 and 4000 level courses in the following subjects are considered to be General Technical Electives: APPM, AREN, ASEN, ASTR, ATLS, ATOC, CHEM, CHEN, CSCI, CVEN, EBIO, ECEN, EVEN, EMEN, GEOL, IPHY, MATH, MCDB, MCEN, and PHYS. In addition, BUSM3020/3021, BUSM3030, GEEN3400, NAVR3030 have been approved to fulfill the requirement.

ME Technical Electives

4000 level MCEN courses not otherwise required for the major are considered to be ME Technical Electives. Students may also apply one of the following courses as an ME Tech: APPM4350, ASEN4123, CSCI3302, any EMEN class, ENEN 4600, GEEN3400.

Grade Requirements

Beginning with the incoming class of Fall 2015, the minimum passing grade for pre-requisite and co-requisite classes in our curriculum is a C. This includes courses completed outside the department (APPM, PHYS, etc.). The minimum passing grade for standalone classes is a D-. In addition, students need to have a cumulative and major GPA of at least 2.25 in order to graduate from the College of Engineering.

Updated 9.10.18

Course Number	Course Name	Credit Hours	Notes/Pre & Co-Req Details
Math and Science			
PHYS 1110	Physics 1	4	Co-Req: APPM 1350
PHYS 1120	Physics 2	4	Pre-Req: PHYS 1110
PHYS 1140	Experimental Physics	1	Co-Req: PHYS 1120
MCEN 1024	Chemistry of Energy & Materials	4	
APPM 1350	Calculus 1	4	
APPM 1360	Calculus 2	4	Pre-Req: APPM 1350
APPM 2350	Calculus 3	4	Pre-Req: APPM 1360
APPM 2360	Linear Algebra & Differential Equations	4	Pre-Req: APPM 1360
General Engineering			
CSCI 1320	Computer Science	4	Co-Req: APPM 1350
GEEN 1400	1st. Yr. Engineering Projects	3	
Mechanical Engineering Core			
MCEN 1025	Computer-Aided Design & Fabrication	4	
MCEN 2000	Professionalism Seminar	1	Only offered in the Fall
MCEN 2023	Statics & Structures	3	Pre-Req: APPM 1360, PHYS 1110
MCEN 2024	Materials Science	3	Pre-Reqs: MCEN 1024, PHYS 1110
MCEN 2043	Dynamics	3	Pre-Req: MCEN 2023, APPM 1360
MCEN 2063	Mechanics of Solids	3	Pre-Req: MCEN 2023, APPM 1360
MCEN 3012	Thermodynamics 1	3	Pre-Req: APPM 2350
MCEN 3021	Fluid Mechanics	3	Pre-Req: MCEN 2023, APPM 2350
MCEN 3022	Heat Transfer	3	Pre-Reqs: MCEN 3012, MCEN 3021, APPM 2360
MCEN 3025	Component Design	3	Pre-Reqs: MCEN 1025, 2024, 2063
MCEN 3030	Computational Methods	3	Pre-Reqs: CSCI 1320, APPM 2360
MCEN 3032	Thermodynamics 2	3	Pre-Reqs: MCEN 3012, 3021, APPM 2360
MCEN 3047	Data/Measurements	4	Pre-Reqs: MCEN 2063, APPM 2360, PHYS 1140; Co-Reqs: Writing, MCEN 3030, ECEN 3010
MCEN 4026	Manufacturing Processes & Systems	3	Pre-Req: MCEN 2024
MCEN 4043	System Dynamics	3	Pre-Reqs: MCEN 2043, ECEN 3010, APPM 2360; Co-Req: MCEN 3030
MCEN 4045	Senior Design Project 1	3	Pre-Reqs: GEEN 1400; APPM 1350, 1360, 2350, 2360; PHYS 1110, 1120, 1140; CSCI 1320; MCEN 1024, 1025, 2000, 2023, 2024, 2043, 2063, 3012, 3021, 3025, 3030; ECEN 3010; (MCEN 3022 or 3047 or 4043 or 4026); Co-Reqs: MCEN 3022, 3047, 4043, 4026; Only offered in the Fall
MCEN 4085	Senior Design Project 2	3	Pre-Req: MCEN 4045; Only offered in the Spring
ECEN 3010	Circuits & Electronics	3	Pre-Req: PHYS 1120; Co-Req: APPM 2360