MECHANICAL ENGINEERING CURRICULUM (4-Year Plan) F Sp = Semester usually taught CSCI1320-4 Sp F MCEN 1024-4 Sp F APPM 1350-4 Sp Sp H&SS-3 Chemistry of Introduction to Calculus 1 Lower Division **Energy and Materials Engineering Computing** For Engineers Sp F GEEN 1400-3 Sp Sp F_APPM 1360-4 Sp PHYS 1110-4 FREE-3 H&SS-3 First-Year Calculus 2 Elective General Physics 1 **Lower Division Engineering Projects** For Engineers APPM 2350-4 Sp F MCEN 1025-4 Sp PHYS 1140-1 PHYS 1120-4 MCEN 2000-1 3 Calculus 3 Computer-Aided **Experimental Physics** General Physics 2 Professionalism Seminar For Engineers Design & Fabrication MCEN 2024-3 Sp APPM 2360-4 Sp MCEN 2023-3 Sp PHYS 2130-3 H&SS-3 Linear Algebra & Materials Science Statics & Structures General Physics 3 Lower Division Differential Equations MCEN 3012-3 Sp ECEN 3010-3 Sp MCEN 2063-3 Sp MCEN 3021-3¹ MCEN 2043-3 5 **Thermodynamics** Fluid Mechanics Circuits & Electronics **Dynamics** Mechanics of Solids MCEN 4043-3 Sp MCEN 3030-3 Sp MCEN 3037-2 Sp MCEN 3022-3L MCEN 3025-3¹ Writing-3 6 System Dynamics Computational Methods Component Design Writing on Science **Heat Transfer** Data Analysis F MCEN 4026-3 ME Tech-3 MCEN 4045-3 MCEN 4037-2 **GEN TECH-3** H&SS-3 Manufacturing Processes Elective ME Design Project 1 Elective **Upper Division** Measurements Lab & Systems GEN TECH-3 Sp MCEN 4085-3 Sp MCEN 4047-2 Sp H&SS-3 ME TECH-3 MCEN 3032-3 8 **Upper Division** Elective ME Design Project 2 Elective Thermodynamics 2 Measurements 2 First course, if not Second course, if not Co-requisite ←→ Yellow Version - Effective Fall 2015 Prerequisite --taken as co-requisites taken as co-requisites

Standard Course Substitutions

CSCI1320 – ECEN1310, or CSCI 1300 (Note: COEN1300 and GEEN1300 are also accepted, if completed prior to Fall 2015)

GEEN1400 - ASEN1400, COEN1400, COEN1410, ECEN1400, GEEN2400, or GEEN3400

MCEN1024 - CHEM1113&1114 or CHEN1211&CHEM1221

PHYS2130 - PHYS2170, CHEM3311&3321, APPM3310, or CSCI2270

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/node/288/.

General Technical Electives

3000 and 4000 level courses in the following subjects are considered to be General Technical Electives: APPM, AREN, ASEN, ASTR, ATOC, CHEM, CHEN, CSCI, CVEN, EBIO, ECEN, EVEN, EMEN, GEOL, IPHY, MATH, MCDB, MCEN, and PHYS. In addition, GEEN3400 and 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. BS/MS students have the same course options, but should complete the classes at the 5000 level.

Tech Elective Exceptions

You may use one of the following courses as an ME Tech Elective, provided your second ME Tech Elective is completed within Mechanical Engineering: APPM4350, ASEN4123, GEEN3400, EMEN4030, EMEN4050, EMEN4100, EMEN4200, EMEN4800, EMEN4825, EMEN4830

Grade Requirements

Beginning with the incoming class of Fall 2015, the minimum passing grade for prerequisite and corequisite 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.