

ENGINEERING (ENGR)

ENGR 100 - Introduction to Engineering Design (3)

Prerequisites: ENGL 70 or ENGL 75 or (ESOL 72 and ESOL 73) or ESOL 100 AND (MATH 165 or MA 111)
(formerly EG 100)

Develops basic concepts of engineering approaches to problem solving and the skills for the design and timely fabrication of the designed product.

ENGR 110 - Engineering Statics (3)

Prerequisites: (ENGR 100 or EG 100) and (MATH 185 or MA 210)
(formerly EG 110)

Introduces static equilibrium of rigid bodies. Topics include scalars and vectors, forces, free-body diagrams, structural analysis, friction, center of gravity, and moment of inertia.

This course is only offered in the Fall.

ENGR 210 - Mechanics of Materials (3)

Prerequisites: (MATH 195 or MA 211) and (PHYS 151 or PY 203)
(formerly EG 210)

Presents the analysis of systems of forces on a deformable body. Topics include tension, stress, and shear applied to beams, columns, shafts, and other machine and structural parts.

This course is only offered in the Spring.

ENGR 212 - Engineering Dynamics (3)

Prerequisite or Co-requisite: MATH 285 or MA 212
(formerly EG 211)

Examines the motion of bodies relative to each other in two and three dimensions. Topics include force-acceleration, work-energy, and impulse-momentum relationships.

This course is only offered in the Spring.

ENGR 214 - Engineering Thermodynamics (3)

Prerequisites: (CHEM 102 or CH 102) and (ENGR 212 or EG 211) and (MATH 285 or MA 212) and (PHYS 252 or PY 204)
(formerly EG 214)

Introduces engineering thermodynamics. Topics include the laws of thermodynamics, thermodynamic properties of materials, energy transfer, thermodynamic cycles, and mixtures.