

ENGR - ENGINEERING

ENGR 1201 Introduction to Engineering 2 Credit Hours (2 Lec)

An introduction to the engineering profession with emphasis on technical communication and team-based engineering design. NOTE: Some mechanical engineering programs will accept the course ENGR 1201 for transfer credit and as applicable to the engineering major, while others will accept the course for transfer credit only. The student is advised to check with the school to which he or she wants to transfer for specific applicability of this course to the engineering major. Prerequisite: Concurrent enrollment or credit in ENGL 1301 and MATH 1314.

Course Type: Life Physical Sci - A CAPP

ENGR 1304 Engineering Graphics I 3 Credit Hours (2 Lec, 2 Lab)

Introduction to computer-aided drafting using CAD software and sketching to generate two and three-dimensional drawings based on the conventions of engineering graphical communication; topics include spatial relationships, multi-view projections and sectioning, dimensioning, graphical presentation of data, and fundamentals of computer graphics. Prerequisite: Concurrent enrollment or credit in ENGL 1301 and MATH 1314.

ENGR 2301 Engineering Mechanics I Statics 3 Credit Hours (3 Lec)

Basic theory of engineering mechanics, using calculus, involving the description of forces, moments, and couples acting on stationary engineering structures; equilibrium in two and three dimensions; free-body diagrams; friction; centroids; centers of gravity; and moments of inertia. Prerequisite: PHYS 2325 and PHYS 2125, or PHYS 2425 and credit for or concurrent enrollment in MATH 2414.

ENGR 2302 Engineering Mechanics II Dynamics 3 Credit Hours (3 Lec)

Basic theory of engineering mechanics, using calculus, involving the motion of particles, rigid bodies, and systems of particles; Newton's Laws; work and energy relationships; principles of impulse and momentum; application of kinetics and kinematics to the solution of engineering problems. Prerequisite: ENGR 2301.

ENGR 2332 Mechanics of Materials 3 Credit Hours (3 Lec)

Stresses, deformations, stress-strain relationships, torsions, beams, shafts, columns, elastic deflections in beams, combined loading, and combined stresses. Prerequisite: ENGR 2301.