ENGINEERING GENERAL (EGN)

EGN 1007 Engineering Concepts and Methodologies
Credit Hours: 1
Lab Fee: Yes
This course introduces students to the use of computer and application software for solving engineering problems by exploring techniques, and modern engineering tools necessary for engineering practice. Students identify, formulate, and solve engineering problems by applying principles of engineering, science, and mathematics.

EGN 2312 Engineering Analysis - Statics
Credit Hours: 3
Prerequisites: MAC 2311 and PHY 2048 - both courses with a grade of "C" or higher
This course covers the fundamental concepts of mechanics, including resultants of force systems, free-body diagrams, equilibrium of rigid bodies, analysis of structures, centroids, moments of area and inertia.

EGN 2322 Engineering Analysis - Dynamics
Credit Hours: 3
Prerequisites: EGN 2312 and MAC 2313- both courses with a grade of "C" or higher
Corequisites: MAP 2302
This course covers calculations involving particles and rigid bodies in motion. Topics covered include mass and acceleration, work and energy, impulse and momentum.

EGN 2440 Probability and Statistics for Engineers
Credit Hours: 3
Prerequisites: MAC 2312 with a grade of "C" or higher or consent of instructor
This course covers axioms of probability, measures of location and dispersion, sampling and sampling distributions, estimations and tests of hypotheses, probability distributions, combinatorial and geometrical probability, and engineering applications of those concepts.