CE 270 : Applied Mechanics I

This course is a study of equilibrium of rigid bodies under the action of forces and the application of the principles of mechanics to solve static problems in engineering.

Credits 3

Lecture Hours 3

Designation

DP

Prerequisites

Physics 170; credit for or registration in MATH 243 (formerly MATH 231) or consent of instructor

Course Outcomes

- Solve problems involving forces, resultant and static equilibrium and their application to rigid bodies.
- Analyze equilibrium of rigid bodies in two and three dimensions.
- Solve problems involving center of gravity, centroids, couples, and moments of inertia.
- Analyze engineering structures subjected to concentrated loads, distributed loads, and frictional forces.
- Utilize abstract thinking and analytical reasoning in the analysis of word problems dealing with mechanical structures.
- Apply calculation techniques to dynamic problems in engineering.