EGR 201 - STATICS

Course Description

This course addresses force systems in two and three dimensions and includes composition and resolution of forces and force systems, principles of equilibrium applied to various bodies, simple structures, friction, centroids, and moments of inertia. Vector algebra and first semester calculus is used throughout the course. Group 2 course.

Credit Hours

3

Contact Hours

3

Lecture Hours

3

Required Prerequisites

MTH 141

Recommended Prerequisites or Skills Competencies

ENG 111, MTH 142

General Education Outcomes supported by this course

Critical Thinking - Direct

Course Learning Outcomes

Knowledge:

- Demonstrate knowledge of subject material through in-class discussion and problem-based homework assignments.

Application:

- Demonstrate vector mechanics skills associated with static mechanics to solve problems.
- Categorize problems by a method associated with its solution.
- Identify the relationships between how structures, machines, and objects around them work in relation to statics.

Integration:

- Construct the appropriate solution and present the solution in the optimal format.

Human Dimension:

- Develop an understanding of how statics affects real-world systems.

Caring - Civic Learning:

- Develop an understanding of why statics is important for solving real-world problems in the community.

Learning How to Learn:

- Develop an engineer's point of view by reflecting course concepts through class participation.