

EGR 203 - DYNAMICS

Course Description

This course introduces the principles of engineering dynamics, including kinematics and kinetics of particles, rigid bodies in translation, rotation, and plane motion. Principles of work and energy, impulse and momentum, and introductory vibrations will be covered. Group 2 course.

Credit Hours

4

Contact Hours

4

Lecture Hours

4

Required Prerequisites

EGR 201

Recommended Prerequisites or Skills Competencies

ENG 111, MTH 241

General Education Outcomes supported by this course

Critical Thinking - Direct

Course Learning Outcomes

Knowledge:

- Explain the concepts of dynamics through in-class discussion and completion of problem-based homework assignments.

Application:

- Identify the relationships between how structures, machines and objects around them work in relation to engineering dynamics.
- Demonstrate engineering dynamics skills associated with kinematics and kinetics to solve problems.

Integration:

- Utilize skills learned in statics (EGR 201) as well as math and physics coursework to solve dynamics problems.

Human Dimension:

- Develop an understanding of how dynamics affects real-world systems around them.

Caring - Civic Learning:

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

Learning How to Learn:

- Develop an engineer's point of view by utilizing a formulaic approach to solving problems.