
SECTION HEADING

ENGR 2215: Dynamics

Description

Dynamics includes vector kinematics and kinetics, absolute and relative motion, force-mass acceleration relations, potential and kinetic energy, work, power, impulse, momentum, conservation of energy and momentum. Applications to particles, particle systems, and rigid bodies will be studied.

Credits

3

Prerequisite

ENGR 2214

Corequisite

None

Topics to be Covered

1. Kinematics of particles
2. Systems of particles
3. Kinematics of Rigid Bodies
4. Plane Motion of Rigid Bodies
5. Mechanical Vibrations

Learning Outcomes

1. Apply concepts of kinematics to solve problems involving rigid bodies in motion
2. Determine forces acting on rigid bodies in motion
3. Apply concepts of kinetics such as work and energy, and impulse and momentum to dynamic systems
4. Design simple dynamic mechanical systems
5. Determine velocities and accelerations of rigid bodies in motion

Credit Details

Lecture: 3

Lab: 0

OJT: 0