

# ENGR2110 : Engineering Dynamics

Kinematics and kinetics of three-dimensional motion of particles, systems of particles, and rigid bodies; translating and rotating reference frames, space mechanics; work-energy, impulse-momentum, and impact problems; introduction to vibrations MATLAB applications and dynamic system modeling and design. Motion converters, mobility equations; Geometric synthesis of linkages; gear teeth; analysis and synthesis of gear trains and planetary gear differentials; computer-aided design.

**Credits** 3

**Prerequisites**

[MATH3540](#), [ENGR2100](#)