ENGR2220 - Engineering Mechanics II

Credits:	3 (3/0/0)
Description:	This course introduces the theory and application of dynamics of particles and rigid bodies. Topics include the kinematics and kinetics of particles and rigid bodies (translational and rotational), principles of work and energy, and principles of impulse and momentum.
Prerequisites:	• ENGR2210 • MATH1135
Corequisites:	
Pre/Corequisites*:	
Competencies:	1. Understand and be able to apply calculus to solve for the kinematics of a particle. 2. Determine the kinetics of particles using Newton's second law. 3. Determine the kinetics of particles using the principles of work-energy and impulse-momentum. 4. Understand the concepts of conservative forces and be able to solve kinetics problems using the conservation of energy. 5. Understand the concept of conservation of momentum and be able to solve impact problems using the principle of impulse and momentum. 6. Apply the concepts of kinematics of a plane rigid body. 7. Determine the kinetics of a plane rigid body using Newton's second law. 8. Apply the principles of work-energy and impulse-momentum to determine the kinetics of plane rigid bodies.
MnTC goal areas:	None

Can be taking as a Prerequisite or Corequisite.

© 2026 Minnesota State Community and Technical College.
We reserve the right to periodically update information without notice.
The information in this publication should not be regarded as contractual in nature.