- Course Number and Title:

  ENGR 234. Engineering Mechanics II (a.k.a., Dynamics)

- Catalog Description:

  Engineering mechanics using vector methods. Force systems, resultants, equilibrium, distributed forces, area moments, and friction.

- Credit Hours:

  3 Credits (3)

- Prerequisite(s) / Corequisite(s)

  Prerequisite(s): ENGR 190 or MATH 1440 or MATH 1521G.

  Pre/Corequisite(s): PHYS 1310G or PHYS 1230G

- Required:

  Required for BSME and BSAE Degrees

- Course Availability:

  Fall and Spring Semesters + Summer

- Instructor (Usual):

  Dr. Ahmed Kanaan (See https://et.nmsu.edu/people/people-directory.html)

- Textbook:

  Hibbeler, R.C., *Engineering Mechanics: Dynamics*, 15th Ed., Pearson Education, 2021 (ISBN-10: 0-13-478095-7, ISBN-13: 978-0-13-478095-5).

- Course Learning Objectives:

  After completing this course, a student should be able to:

  1) Have a good understanding of the kinetics of particles, kinematics and kinetics rigid bodies, energy and momentum principles, and kinetics of rigid bodies.
  2) Be able to apply the acquired knowledge to formulate, solve and interpret solutions of engineering mechanics problems.

- Topics Covered:

  - Kinematics of a Particle
  - Kinetics of a Particle: Force and Acceleration, Work and Energy, Impulse and Momentum
  - Planar Kinematics of a Rigid Body
  - Planar Kinetics of a Rigid Body: Force and Acceleration, Work and Energy