Instructor:

- Faryar Jabbari (fjabbari `at' uci.edu)
- Engineering Gateway 3221,
- Open Office hours: Mondays 9:00-10:30 and Wednesday 5:00-6:30 pm via Google Hangout + Canvas Discussions
- (Skype handle: faryar.jabbari.office)

Teaching Assistants:

- TBA

Exams: The two midterms and the final can be taken on-line (through Proctor-U) or in person on campus.

- midterm 1: Tuesday August 16, 6 p.m.
- midterm 2: Tuesday August 30, p.m.
- Final: Tuesday September 6, p.m.

Text:

Reference Text

Course Overview
Introduction to kinetics and dynamics of particles and rigid bodies. The Newton-Euler, Work-energy and impulse-momentum methods are explored for studying the dynamics of particles and rigid bodies. An engineering design problem using these fundamental principles is also undertaken. Prerequisites: MAE30 or CEE 30.
Objectives

- To understand particle and rigid body motion, based on elementary laws of physics.
- To explore force and momentum concepts, conservation of energy, as well angular momentum and rotation for more complicated systems and simple models of real life mechanism (cranes, robots, etc).
- The relationships between force/moment applied and the desired motion and rotation, for use in design and analysis of engineering systems.

Grading Criteria:

HW (8%)

On-line quizzes (9%)

Survey participation (3%)

Midterms (45%)

Final (35%)