General Information
http://iel.ucdavis.edu/course/

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Teaching Assistant Nurun Nargis
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Office hours: 2:00 - 4:00 pm Tuesday
12:45 - 2:45 pm Wednesday
2:00 - 4:00 pm Friday

Lecture Hours 10:00-11:50am TR, 202 Wellman

Prerequisites ENG35 and MATH 22B

Textbooks (1)Meriam and Kraige, *Engineering Mechanics-Volume 2 Dynamics,* sixth edition, John Wiley and Sons, 2008
(2) Instructor's lecture notes.

Course Handouts The course handouts are distributed at lecture time.
Some of them are available on the Web of the home page for ENG102 at http://iel.ucdavis.edu/course/
For example, this handout is stored as `general.pdf` under *General Policy.*

Homework Homework is given out periodically and is due typically on Friday by 5pm in the MAE homework box. The homework will be assigned at lecture time. However, you can get a copy of the homework assignment from the home page for this class on the WWW. Solutions to the written homework assignment will be available on the course webpage. Late homework will not be accepted.

Examinations

50-minute midterm examination: this is an open book/open notes examination. The specific date of examination will be announced one week before the examination date. No early or late exam will be given. If you miss the exam for medical reasons (You **must** document this; no other excuses are acceptable), the other parts of the course will be counted proportionally more or you may be allowed or required to take a make-up exam (the choice is the instructor's).
Final examination: a comprehensive open book/open notes examination. Tuesday December 11, 1:00-3:00 pm, in 1227 Harring

Grading System

Homework 25%
Midterm Examination 25%
Final Examination 50%
The final grade will be given according to Gaussian distribution curve. Also be aware that I take other factors into account when assigning your final grade. For example, if you do very well on everything except one exam, I might boost your grade from the one I would assign using a strict numeric computation.

Outcome

This course addresses the following Educational Outcomes for the Mechanical Engineering and Aeronautical Science and Engineering Programs
(a) work comfortably and competently with mathematics, science, and basic engineering principles;
(e) identify, formulate and solve engineering problems;
(k) use the techniques, skills, and modern engineering tools necessary for engineering practice.

Attending Lecture

You should attend *every* lecture of this class.
If for any reason you miss a class, you should get lecture notes from your classmates and try to understand the material by yourself. What you missed will be covered in the examinations.
Experience indicates that a student who often misses lectures will have difficulty to follow up in the subsequent lectures and will not perform well in both homework and examinations.

Academic Integrity

(1) All work submitted for credit must be your own.
You may discuss your assignment with classmates and instructor, in the course to get ideas or a critique of your ideas, but the ideas and words you submitted must be your own. Unless **explicitly** stated otherwise in the homework assignment, collaboration is considered cheating and will be dealt with accordingly.
(2) For written homework, you must write up your own solutions and may neither read nor copy another student's solutions.

Outline

I Introduction

definitions
introductory notions
review of vector analysis

II Kinematics

particles

- Rectilinear motion
- Curvilinear motion

rigid bodies

- angular velocity
- angular acceleration
- velocity and acceleration of points of rigid body
- relative motion

III Force Systems

resultant
moments
couples
equivalent force systems

IV Mass/Inertia Properties

mass center
moments and products of inertia
inertia matrix
inertia theorems
angular momentum
angular momentum theorems

V Kinetics

particles
systems of particles
rigid bodies
equations of motion
work and energy
impulse momentum