ENG 104: Mechanics of Materials

Fall 2010, UC Davis

Instructor: N. Sukumar
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Instruction

MW: 8:00am–9:50am (1002 GIEDT)
Office hours: MW 10:30am–noon

TA: Seyed Mousavi (semousavi@ucdavis.edu)
Office hours: M (2pm–4pm), Tu (9am–1pm), W (2pm-5pm)
Location: 2205 Academic Surge

Graders: Alejandro Ortiz (alortiz@ucdavis.edu) [Lastnames starting with A–L]
Christine Chuang (cchuang@ucdavis.edu) [Lastnames starting with M–Z]

Textbook


Syllabus

The lectures make up this course; however, for the most part I’ll follow the conventions and notations used in the textbook, and the book will help to reinforce the lectures. The topics that will be covered in this course are:

1. Tension, Compression, and Shear
2. Axially Loaded Members
3. Torsion
4. Shear Forces and Bending Moments
5. Stresses in Beams
6. Analysis of Stress and Strain
7. Applications of Plane Stress (Pressure Vessels, Beams, Combined Loading)
8. Deflection of Beams
9. Column Buckling
10. Combined Loads

Evaluation

1. Homework (20%)
2. Mid-term exam (30%)
3. Final exam (50%)

A homework will be assigned every week on Wednesday and will be due by 5p.m. on the following Wednesday. Homework drop-box for ENG 104 is located on the second floor of Ghausi Hall. Drop-off the homeworks in the drop box before the deadline; I won’t pick them up in class. Late homeworks will not be accepted (no exceptions). I will drop the lowest homework score in evaluating the 20% weightage for the homeworks. You can discuss the homework with others, but must write-up the homework on your own.

If you have questions on the material covered in-class or on the homeworks, the best time for clarifications is during office hours or just after class. Please try to attend my office hours or those of the TA to clear-up your doubts as and when they arise. All exams will be closed book and closed notes. In the mid-term and final exams, a crib sheet (1 page) with formulas can be used. Mid-term will be held on November 8, 2010 (8:00am–9:30am in 1002 GIEDT), and the final exam is scheduled for December 6, 2010 (10:30am–12:30pm).