

CEE212 – Solid and Structural Mechanics (3 Credits)
Winter Semester 2014-2015
Course Description

- Instructor:** [Jerome P. Lynch](mailto:jerlynch@umich.edu)
2380 G. G. Brown
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- Assistants:** Zhijie Wang (Graduate Student Instructor)
zjwang@umich.edu
Mollie Kurasik (Instructional Aid)
mkurasik@umich.edu
- Lectures:** Mondays, Wednesdays and Fridays
9:30-10:30 am
2315 G. G. Brown Building
<http://leccap.engin.umich.edu/leccap/site/g8tw6rnknhjwc78tmeh>
- Office Hrs:** *Prof. Lynch:* Monday, Wednesday, Friday, 10:30-11:30 am, 2380 G. G. Brown
Mr. Wang: Fridays, 2:00-5:00 pm, 153 EWRE
Ms. Kurasik: Thursdays, 5:00-7:30 pm, 153 EWRE
- Website:** <http://www-personal.umich.edu/~jerlynch/cee212/>

Catalog Description:

Fundamental principles of solid and structural mechanics will be presented. Application of the principles to civil engineering structures will be emphasized. The course will further develop the concepts introduced in Statics and Dynamics (CEE211). In particular, the notion of internal forces, and the concepts of stress and strain will be introduced. Mechanical properties of solids will be discussed, and the notion of statical indeterminacy will be introduced. The methods of structural analysis will be presented, including those based on energy concepts.

Textbook:

- Mechanics of Materials: An Integrated Learning System, T. A. Philpot, Wiley, 3rd ed.

Course Requirements:

- Regular attendance
- Weekly homework assignments
- Midterm exam #1 (Friday, February 20, 2015, 9:30-10:30 am)
- Midterm exam #2 (Monday, March 23, 2015, 9:30-10:30 am)
- Final exam (Wednesday, April 29, 2015, 10:30 pm - 12:30 pm)

Homework:

Homework will normally be assigned each Monday and due the following Monday *in class*. **Late homework will not be accepted.** You are allowed to discuss the homework problems with peers, but you must write up your own homework to hand in. Please submit homework assignments in a neat and presentable manner with all calculations shown. **Submission of homework on engineering pad paper is required.** Homework

will be graded on a scale of 100. Please abide by the University of Michigan Honor Code
- it will be strictly enforced, including on homework.

Grading:

Homework 30%, midterms 40%, final exam 30%

These weights are approximate; the right to change them later is reserved.

Prerequisites:

- CEE211 - Statics and Dynamics (strictly enforced)