Advanced Solid Mechanics (MEEN 5410, MEEN 4800), Spring 2014

Catalog Description: This course introduces the basic principles on advanced mechanics of materials. This course will enable graduate students and senior level undergraduate students to understand the fundamental solid mechanics and solve linear elastic problems of solids and structures.

Class Schedule: Tuesday & Thursday, 2:30 – 3:50PM (Discovery Park D202)

Instructor: Jaehyung Ju, Assistant Professor, Mechanical and Energy Engineering (Office: F101P & Email: jaehyung.ju@unt.edu)

Office Hours: Tuesday & Thursday, 4:00-5:20PM

Prerequisite: Mechanics of Materials (ENGR 2332)

Recommended Textbook:

References:

Course Outline:
1. Stress and Strain
2. Constitutive Equations
3. Failure Criteria (including Fracture)
4. Bending of Beams
5. Torsion of Prismatic Bars
6. Energy Methods
7. Buckling and Instability
Methods of Evaluation and Grading Procedure

1. Homework assignments (including projects) 40%
2. Midterm exam 30%
3. Final exam 30%
Total 100%

A= 90-100%; B=80-89%; C=70-79%; D=60-69%; F=<60%

* If the number of absences in the class is more than 4, it would be an automatic failure in the course.

Policy on Assignments

- All students should do their assignments for themselves. Even partial copies of your colleagues’ are not allowed. It will be considered to be a cheating or plagiarism, resulting in a zero point grade on that assignment.
- No late work will be accepted. (Every homework assignment should be turned in before the class of deadline date.)
- Excused late work with prior approval will be accepted for partial credit.

Academic Integrity:
Academic integrity is defined in the UNT Policy on Student Standards for Academic Integrity. Any suspected case of Academic Dishonesty will be handled in accordance with the University Policy and procedures. Possible academic penalties range from a verbal or written admonition to a grade of “F” in the course. Further sanctions may apply to incidents involving major violations. You will find the policy and procedures at http://vpaa.unt.edu/academic-integrity.htm.

Student Behavior in the Classroom:
Student behavior that interferes with an instructor’s ability to conduct a class or other students’ opportunity to learn is unacceptable and disruptive and will not be tolerated in any instructional forum at UNT. Students engaging in unacceptable behavior will be directed to leave the classroom and the instructor may refer the student to the Center for Student Rights and Responsibilities to consider whether the student’s conduct violated the Code of Student Conduct. The University’s expectations for student conduct apply to all instructional forums, including university and electronic classrooms, labs, discussion groups, field trips, etc. The Code of Student Conduct can be found at www.unt.edu/csrr.

Disability Policy:
All reasonable accommodation will be made to facilitate special needs. If special accommodations are required, the student must first meet with the staff of the Office of Disability Accommodation (ODA), Union Suite 322, (940) 565-4323. After meeting with that office, please contact me to discuss what accommodations will be necessary. For more information, see http://www.unt.edu/oda.