

MECH 5302/6302: Solid Mechanics I

Textbook (Optional):	<u>Elasticity and Inelastic Stress Analysis</u> by H. Shames and F. Cozzarelli
Class/Lab Meeting:	TRs, 1:30 to 2:50 pm
Class Room:	COBA 331
Prerequisite:	Mechanicals of Materials
Instructor:	Yirong Lin, Ph.D. Department of Aerospace and Mechanical Engineering Office: A111 E-mail: ylin3@utep.edu

Topics covered

1. Stress
2. Strain
3. Introduction to Cartesian Tensors
4. The behavior of Engineering Materials
5. Linear Elastic Behavior
6. Constitutive Equations
7. Fracture and Stress Intensity Factor
8. Solid Mechanics for Advanced Material System Modeling

Grades

Your grade for this course will be assessed based on your performance in quizzes (20 %), mid-term exams (50 %), a project (30 %). Your final grade is calculated based on the criteria below,

Your final grade will be calculated based on the points you have accumulated as follows:

A	≥ 90
B	≥ 80 but < 90
C	≥ 70 but < 80
D	≥ 60 but < 70
F	< 60

The instructor reserves the right to revise this grading plan. However, students will be informed of any changes during the semester.

Policy on Cheating

Students are expected to be above reproach in all-scholastic activities. Students who engage in

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scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from the university. Scholastic dishonesty includes but is not limited to cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student, or the attempt to commit such acts (Regents= Rules and Regulations, Part One, Chapter VI, Section 3, Subsection 3.2, Subdivision 3.22). Scholastic dishonesty harms the individual, all students, and the integrity of the university; policies on scholastic dishonesty will be strictly enforced.

Class Schedule (tentative)

2 Quizzes: End of September, End of October or early November

2 Exams: End of September, End of October or early November

1 Project: Mid – End of November

Note: For those taking this course as MECH 6302, you will need to turn in a 2-page mini-review to earn the credit. Detailed will be given during the lecture in the beginning.

The above schedule, policies, and assignments in this course are subject to change in the event of extenuating circumstances or by mutual agreement between the instructor and the students.