COURSE SYLLABUS
ENGR 2332 Mechanics of Materials

COURSE INFORMATION

Credit Hours: 3
Term: Summer 2026
Time: MW 12:00 PM - 1:50 PM
Classroom: K120

INSTRUCTOR INFORMATION

Name: Saman Rashidyan, Ph.D., PE, PMP
Office: Discovery Park F101J
Office Hours: MW 2-3 pm (or by appointment)
Phone: (940) 369-5263
Email: Saman.Rashidyan@unt.edu

TEACHING ASSISTANT (TA) INFORMATION

Name: Khashayar Arshadi
Office: Discovery Park D209
Office Hours: MW 12 to 1 pm & 2 to 3 pm
Email: khashayararshadi@my.unt.edu

COMMUNICATION EXPECTATIONS

- You can communicate with your instructor via email (Saman.Rashidyan@unt.edu) any time. Please DO NOT communicate with your instructor in Canvas. Your emails will be answered when they are sent to Saman.Rashidyan@unt.edu **only**.
- Grades, PowerPoint files and announcements will be posted in Canvas.
- Homework will be assigned on WileyPlus platform (usually every Thursday).

COURSE DESCRIPTION

Relationships among loads placed on structural components; shape and size of components; resultant stresses, strains and deflections of components.

COURSE STRUCTURE

Course format and content delivery: face-to-face.
Length of the semester: May 18 – July 24

COURSE PREREQUISITE

ENGR 2301 with a grade of C or better.

COURSE OBJECTIVES

By the end of the course, you will be able to:

1. Understand the concepts of stress and strains, and the influence of loading direction on deformation.
2. Understand the impact of applied loads on design.
3. Know the final extensions on axially loaded members subjected to tensile or thermal stresses.
4. Understand the influence of torsional stresses on deformation of circular bars.
5. Understand shear force and bending moments diagrams.
6. Understand the principal stress based on applied loads.
7. Understand the influence of location of loads on deflection.
8. Understand the effects of end conditions on deformation.

STUDENT LEARNING OUTCOME

a) Calculate stress-strains relations for typical engineering applications. (1, 2, 3, 7, 8)
b) Analyze tensile loading of members. (1, 2, 3)
c) Analyze torsion in beams. (1, 2, 4)
d) Analyze beams in deflection. (1, 5, 7)
e) Calculate principal stresses and angular dependence of stress. (6)
f) Evaluate buckling of columns. (1, 6)
g) Analyze columns under compression. (8)

MATERIALS

Required Textbook and Associated Software

Philpot, Timothy A., Mechanics of Materials: An Integrated Learning System, 4th Edition, Publisher: Wiley. Course outline is based on this textbook. You will need to get online access from WileyPLUS for the assignments. (Course ID: C86624)

MINIMUM TECHNOLOGY REQUIREMENTS

- Computer
- Reliable internet access
- Canvas Technical Requirements (https://clear.unt.edu/supported-technologies/canvas/requirements)

COMPUTER SKILLS & DIGITAL LITERACY

- Using Canvas
- Using email with attachments

TECHNICAL ASSISTANCE

Here at UNT we have a Student Help Desk that you can contact for help with Canvas or other technology issues. UIT Help Desk: UIT Student Help Desk site (http://www.unt.edu/helpdesk/index.htm)
Email: helpdesk@unt.edu , Phone: 940-565-2324

COURSE EVALUATION

Student Perceptions of Teaching (SPOT) is the student evaluation system for UNT and allows students the ability to confidentially provide constructive feedback to their instructor and department to improve the quality of student experiences in the course. Please don't forget to submit the course evaluation when the link is sent to you in November.

TENTATIVE COURSE OUTLINE

The course outline may be subjected to modifications with notice.

Week	Topic	Book Chapter
1	Introduction, Normal, Shear and Bearing Stress	1
2	Normal, Shear and Bearing Stress, Deformation and Strain	1, 2
3	Mechanical Properties of Materials, Design Concepts	3,4
4	Axial Deformation	5
5	Torsion, Equilibrium of Beams, **Exam #1 (Wednesday June 17)**	6, 7
6	Bending	8
7	Shear Stress in Beams	9
8	Beam Deflections, **Exam #2 (Wednesday July 8)**	10
9	Beam Deflections, Stress Transformation	10, 12
10	Columns, Review, **Final Exam (Friday July 24, 12 pm – 2 pm)**	16

COURSE REQUIREMENTS

Exams

Exams will be open notes/open book (physical copy only). They will be based on textbook, class exercises, homework, class lectures and class discussions. Students are responsible for all text material, regardless of whether we review the text material in class or not.

Missed Exams: You will be allowed to make up missed exams only if you have a documented university excused absence. Make-up exams may not be the same as the original.

Homework

Homework is posted on Wileyplus and due one week, unless otherwise noted.

Late Homework: It is the students' responsibility to submit all assignments in time. Homework cannot be accepted late as it is controlled by the WileyPLUS platform.

GRADING

Attendance/Participation	5
Homework and in-class assignments (if any)	20
Exam #1	22.5
Exam #2	22.5
Final Exam	30
Total	100

GRADE DISTRIBUTION

90 – 100 and higher	A
80-89	B
70-79	C
60-69	D
Below 60	F

RULES OF ENGAGEMENT

Rules of engagement refer to the way students are expected to interact with each other and with their instructors. Here are some general guidelines:

- While the freedom to express yourself is a fundamental human right, any communication that utilizes cruel and derogatory language on the basis of race, color, national origin, religion, sex, sexual orientation, gender identity, gender expression, age, disability, genetic information, veteran status, or any other characteristic protected under applicable federal or state law will not be tolerated.
- Treat your instructor and classmates with respect in any communication online or face-to-face, even when their opinion differs from your own.
- Ask for and use the correct name and pronouns for your instructor and classmates.
- Speak from personal experiences. Use "I" statements to share thoughts and feelings. Try not to speak on behalf of groups or other individual's experiences.
- Use your critical thinking skills to challenge other people's ideas, instead of attacking individuals.
- Avoid using all caps while communicating digitally. This may be interpreted as "YELLING!"
- Be cautious when using humor or sarcasm in emails or discussion posts as tone can be difficult to interpret digitally.
- Avoid using "text-talk" unless explicitly permitted by your instructor.
- Proofread and fact-check your sources.
- Keep in mind that online posts can be permanent, so think first before you type.

See these Engagement Guidelines for more information.