

South Plains College
Mathematics, Engineering, & Computer Science Department
Mechanics of Materials (Solids) – ENGR 2332.601
Tuesday & Thursday: 4:00pm – 5:45pm
Course Syllabus - Fall 2026

Instructor: Jake Wyatt, PE, SE
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Office Hours: (Levelland Campus M110): T & R: 10:45-11:45am & 2:15-3:00pm, F: 9:00-11:00am, and by appointment.
(Lubbock Campus B001): M & W: 8:00 – 9:00am & 12:15 – 1:00pm, and by appointment

Course Description: Solids is the theory of stress and strain in elastic and inelastic bodies subject to various conditions of loading.

Credit: 3 Semester Credit Hours

Prerequisites: ENGR 2301 (“C” or better in Statics)

Textbook: Mechanics of Materials (11th ed.) by R.C. Hibbeler

Attendance: Attendance and effort are important for success in this course. Class attendance may be taken at any time during the class period, so please do not arrive late or leave early.

Class Format:	4:00 – 4:30pm	HW Questions from Students
	4:30 – 5:15pm	Lecture
	5:15 – 5:20pm	Break
	5:20 – 5:45pm	Lab Assignment

Lab Assignments: Lab assignments (labs) are short worksheets to be completed in class. The lab consists of problems related to the lecture. If the lab cannot be completed by 5:45pm, then an extension without penalty will be granted. However, if a student leaves early before completing the lab, no extension will be granted and he or she must turn in the incomplete lab before leaving. Make-up labs are only permitted in the case of an excused absence. Group work is encouraged during labs.

Homework: Homework will be assigned at each class meeting but will not be graded until exam day.

Format for all homework assignments:

1. Provide a “Given” and “Find” problem statement on your own paper.
2. Provide a solution showing all the necessary work.
3. Clearly mark your final answer.
4. Check your answer with the answer key to make certain you are practicing correctly.

Notebook: You are required to maintain a 3-ring binder with four dividers, labeled: Notes, Homework, Lab Assignments, & Exams. Your notebook will be collected on exam days and will be graded for completeness and neatness.

Grading:	Notebook:	10%
	Lab Assignments:	10%
	3 Exams:	20% each
	Final Exam:	20%

Note: Your lowest exam score will be replaced with your final exam score, provided the latter is higher.

Your final average in the course will determine the letter grade posted on your transcript. This grade is determined by the following scale. A(90-100%), B(80-89%), C(70-79%), D(60-69%), F(0-59%).

Technology: A non-graphing calculator may be used in this course as needed. The TI-30XIIS is a good option. Computers and cell phones are prohibited except for note taking.

Supplementary Information: The course syllabus, schedule, and grades can be accessed through Blackboard, the online course management system for this course. Please email questions regarding Blackboard support to blackboard@southplainscollege.edu. For information regarding official South Plains College statements about diversity, disabilities, non-discrimination, Title V Pregnancy & Parenting Accommodations, and Campus Concealed Carry, please visit: <https://www.southplainscollege.edu/syllabusstatements/>.

Mechanics of Materials (Solids) Course Outline

ENGR 2332.601 (TR 4:00 – 5:45pm)

Fall 2026

Topics & Assignments from:

Mechanics of Materials (11th ed.) by R.C. Hibbeler

Week	Date	Required Reading & Lecture Topic	Homework Assignment	#
1	Aug 25 – T	1.1 - 1.2 Equilibrium of a Deformable Body	1-1, 1-5, 1-10	1
	Aug 27 – R	1.3 – 1.5 Stress, Average Normal Stress, Average Shear Stress	1-31, 1-38, 1-42	2
2	Sep 1 – T	1.6 – 1.7 Allowable Stress Design, Limit State Design	1-70, 1-77, 1-79	3
	Sep 3 – R	2.1 – 2.2 Deformation & Strain	2-2, 2-5, 2-15	4
3	Sep 7 – M	<i>Labor Day Holiday – No Office Hours</i>		
	Sep 8 – T	3.1 – 3.4 Stress-Strain Relationships	3-1, 3-14, 3-21	5
	Sep 10 – R	3.5 – 3.6 Poisson's Ratio	3-25, 3-29, 3-33	6
4	Sep 15 – T	Exam 1 (20%)		
	Sep 17 – R	4.1 – 4.2 Saint-Venant's Principle & Axially Loaded Members	4-1, 4-7, 4-13	7
5	Sep 22 – T	4.6 – 4.7 Thermal Stress & Stress Concentrations	4-69, 4-70, 4-93, 4-94	8
	Sep 24 – R	5.1 – 5.2 Torsion Part 1	5-5, 5-11, 5-15	9
6	Sep 29 – T	5.3 – 5.4 Torsion Part 2	5-30, 5-33, 5-58	10
	Oct 1 – R	6.1 – 6.2 Load as Function of Position, Shear & Moment Diagrams	6-2, 6-5, 6-13	11
7	Oct 6 – T	6.3 – 6.4 Bending Deformation, Flexure Formula	6-47, 6-53, 6-73	12
	Oct 8 – R	6.6 Composite Beams	6-121, 6-122, 6-124	13
8	Oct 13 – T	6.7 Reinforced Concrete Beams	6-127	14
	Oct 15 – R	Exam 2 (20%)		
	Oct 16 – F	<i>SPC Fall Break – no office hours</i>		
9	Oct 20 – T	7.1 – 7.2 The Shear Formula	7-1, 7-2, 7-3	15
	Oct 22 – R	7.3 Shear Flow in Built-Up Members	7-33, 7-34, 7-35, 7-46	16
10	Oct 27 – T	8.1 – 8.2 Combined Loadings	8-18, 8-26, 8-27	17
	Oct 29 – R	4.4 – 4.5 Indeterminate Axially Loaded Members & The Force Method	4-31, 4-39	18
11	Nov 3 – T	5.5 Indeterminate Torque-Loaded Members	5-77, 5-78, 5-79	19
	Nov 5 – R	9.1 – 9.3 Stress Transformation	9-1, 9-2	20
	Nov 6 – F	<i>Registration Opens for Spring</i>		
12	Nov 10 – T	9.4 Mohr's Circle – Plane Stress	9-51, 9-53	21
	Nov 12 – R	Exam 3 (20%)		
13	Nov 17 – T	11.1 – 11.3 Beam Design	11-1, 11-5, 11-10	22
	Nov 29 – R	13.1 – 13.3 Column Design	13-2, 13-3, 13-10	23
14	Nov 24 – T	12.1 – 12.2 Elastic Curve, Slope & Displacement by Integration	12-5, 12-9	24
	Nov 25 – W	<i>Thanksgiving Holiday – No Office Hours</i>		
	Nov 26 – R	<i>Thanksgiving Holiday – No Class</i>		
	Nov 27 – F	<i>Thanksgiving Holiday – No Office Hours</i>		
15	Dec 1 – T	12.5 Method of Superposition	12-83, 12-85, 12-86	25
	Dec 3 – R	12.6 – 12.7 Statically Indeterminate Beams & Shafts	12-99, 12-102	26
16	Dec 8 – T 5:00–7:00 pm	Final Exam (20%)		

Note: The instructor reserves the right to modify the course syllabus and schedule, as well as notify students of any changes, at any point during the semester.