

ENGR 2301 - STATICS

South Plains College

Professor: Dr.Ramesh Krishnan (alias: Krams)

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Office Hours: **M:** 2:30 – 5:00, **TR:** 9:50 – 10:40, **T:** 12:00 – 1:00, **F:** 8:00 – 11:00

Textbook: Vector Mechanics for Engineers - STATICS, (11th edn.): by Beer & Johnston

ATTENDANCE: Attendance and effort are highly important for success in this course. Any student having more than 3 absences in the class stands a chance of automatically being dropped from this course with a grade of F. The only exception will be a medical emergency for which proper documentation, as deemed appropriate by the professor, will be needed.

GRADING: Grades in the course will be based on the following components:

• 3 exams	(60%)	$A \geq 90$
• Quizzes	(10%)	$80 \leq B < 90$
• Homework	(10%)	$70 \leq C < 80$
• Final exam	(20%)	$60 \leq D < 70$
		$F < 60$
TOTAL	100%	

PS: **NO MAKE-UP** exams will be given. If you miss **one**, the final exam will count twice. NO MAKE-UP Quizzes will ever be given. If you miss, you missed it for the course!

EQUAL OPPORTUNITY: South Plains College strives to accommodate the individual needs of all students in order to enhance their opportunities for success in the context of a comprehensive community college setting. It is the policy of South Plains College to offer all educational and employment opportunities without regard to race, color, national origin, religion, gender, disability or age.

DISABILITY: Students with disabilities, including but not limited to physical, psychiatric or learning disabilities, who wish to request accommodations in this class should notify the Special Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Special Services Coordinator. For more information, call or visit the Special Services Office in the Student Services Building, 894-9611 ext. 2529, 2530.

DROPPING A COURSE: If you decide to drop the course, return a completed official drop form to the registrar's office by the dates given in the schedule of classes.

COURSE OBJECTIVES

The primary objective of this course is to develop a thorough understanding of the action of forces on objects at rest. The knowledge that you gain in this course will be important in many areas of engineering, particularly in structural engineering. By the end of the semester, you should be able to draw free body diagrams; determine the point of action, direction, and magnitude of all external forces on a wide variety of physical objects and structures; determine the resultant force necessary to maintain the object in equilibrium; and calculate the internal forces on a wide variety of structural objects, including trusses, frames, machines, and beams. Calculate centroids, centers of mass, and mass moments of inertia. A second and equally important objective of this course is to develop broad engineering skills. Engineering requires the mastery of complex concepts and development of critical thinking and problem solving skills. While these skills come naturally to some people, most of you will need to learn, develop, and practice techniques to enhance your ability to learn and apply engineering concepts. The skills that you develop and sharpen in this course may improve your performance in future engineering courses and determine your eventual success as a practicing engineer.

HOMEWORK: Done online at <http://connect.mheducation.com/class/krams-spring-2019>

Course Outline		
This schedule is tentative and subjective to change. Changes will be announced in class.		
Week	Date	Topics and Sections Covered
1	1/14, Mon 1/15, Tues	Introduction, Chapter 1
	1/16, Wed 1/17, Thurs	Chapter 2
2	1/21, Mon	<i>MLK, Jr.</i>
	1/22, Tues	Chapter 2
	1/23, Wed 1/24, Thurs	Chapter 2
3	1/28, Mon 1/29, Tues	Chapter 2
	1/30, Wed 1/31, Thurs	Quiz #1
4	2/4, Mon 2/5, Tues	Chapter 2
	2/6, Wed 2/7, Thurs	Exam #1
5	2/11, Mon 2/12, Tues	Chapter 3
	2/13, Wed 2/14, Thurs	Chapter 3
6	2/18, Mon 2/19, Tues	Chapter 3
	2/20, Wed 2/21, Thurs	Chapter 3
7	2/25, Mon 2/26, Tues	Chapter 3
	2/27, Wed 2/28, Thurs	Chapter 3
8	3/4, Mon 3/5, Tues	Chapter 4
	3/6, Wed 3/7, Thurs	Exam #2
	3/11 - 3/15	<i>Spring Break</i>
9	3/18, Mon 3/19, Tues	Chapter 4
	3/20, Wed 3/21, Thurs	Chapter 4
10	3/25, Mon 3/26, Tues	Chapter 4
	3/27, Wed 3/28, Thurs	Quiz #2
11	4/1, Mon 4/2, Tues	Chapter 5
	4/3, Wed 4/4, Thurs	Chapter 5

12	4/8, Mon 4/9, Tues	Chapter 5
	4/10, Wed 4/11, Thurs	Exam #3
	4/12, Fri	UIL – No office hours
13	4/15, Mon 4/16, Tues	Chapter 6
	4/17, Wed 4/18, Thurs	Chapter 6
14	4/22, Mon	EASTER
	4/23, Tues	Chapter 6
	4/24, Wed 4/25, Thurs	Chapter 7
15	4/30, Mon 5/1, Tues	Chapter 7
	5/2, Wed 5/3, Thurs	Review for Finals
Finals	5/, Mon	
	5/, Tues	