

ENGR 1201 – INTRODUCTION TO ENGINEERING

South Plains College

Professor: Dr.Ramesh Krishnan (alias: Krams)

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Office Hours: **M:** 10:30 – 11:00, 1:00 – 2:30, **TR:** 4:00 – 5:00, **F:** 8:00 – 10:00

Textbook: Thinking Like An Engineer, Stephan, Bowman et al., 3rd edition, Pearson Publishing.

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:

• Exams	(50%)	$A \geq 90$
• Projects	(20%)	$80 \leq B < 90$
• Homework	(15%)	$70 \leq C < 80$
• Lab Work	(15%)	$60 \leq D < 70$
		$F < 60$
TOTAL	100%	

PS: NO MAKE-UP exams will be given. If you miss **one**, the final exam will count twice.

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 DESCRIPTION

Introduction to the various engineering disciplines including familiarization with the relevant engineering sciences, computer analysis tools and techniques, discussion of professionalism and ethics, and experiences in team design projects.

HOMEWORK & LAB ASSIGNMENTS

All lab assignments are posted on the blackboard on the college website at www.southplainscollege.edu. All lab work should be emailed to my email at rkrishnan@southplainscollege.edu within one day of the assigned date. Please do not turn in any late labs as it will not be graded.

All homework assignments are done online at www.pearsonmylabandmastering.com

Steps to follow are: 1. Purchase access code (books bought at the bookstore should come with the code)
2. Go to the www.pearsonmylabandmastering.com and set up your user id and pw
3. Enroll in your course using the id: "krishnan84251"

Assignments with their due dates will be listed. No extensions on due dates for the homework assignments will be allowed.

COURSE PURPOSE

This course is designed to develop the motivation, study habits, and problem solving skills necessary for success as a freshman engineering student. Students are introduced to the opportunities and challenges offered by a career in engineering. They also gain experience in the application of basic computer tools (e.g., Excel and MATLAB) to analyses typical of engineering. Finally, students develop an understanding and appreciation of the design process and the open-ended problems found in the practice of engineering.

COURSE OUTCOMES:

Upon completion of this course, students should have:

1. An elementary knowledge of the disciplines in engineering, especially the undergraduate programs and extracurricular opportunities available
2. A basic understanding of and experience in the steps and techniques of engineering design
3. Emerging skills in written and/or oral communication related to engineering design
4. Introductory skills in teamwork with peers
5. Preliminary development of the habits of mind that engineering study and practice require
6. Summarize and give examples of the ethical and professional issues characteristic of an engineering career
7. Apply Microsoft Excel and Mathworks MATLAB to engineering analyses*

* Time permitting