

ENGR 1201 – INTRODUCTION TO ENGINEERING

South Plains College

Professor: Dr.Ramesh Krishnan (alias: Krams)

Office: AG 108 **PHONE:** (806) 894-9611 x 2698 **Email:** rkrishnan@southplainscollege.edu

Office Hours: MW: 10:30 – 11:00, 1:00 – 2:30, T: 1:00 – 2:30, F: 8:00 – 10:30

Textbook: Thinking Like An Engineer, Stephan, Bowman et al., 4th 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 or missing more than 3 assignments (homework, lab, projects, exams) 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.

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: "**krishnan73111**"

The registration for this closes on October 15th, 2018.

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

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 Disability 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 Disability Services Office. For more information, call or visit the Disability Services Office at Levelland (Student Health & Wellness Office) 806-716-2577, Reese Center (Building 8) & Lubbock Center 806-716-4675, or Plainview Center (Main Office) 806-716-4302 or 806-296-9611.

South Plains College does not discriminate on the basis of race, color, national origin, sex, disability or age in its programs and activities. The following person has been designated to handle inquiries regarding the non-discrimination policies: Vice President for Student Affairs, South Plains College -1401 College Avenue, Box 5, Levelland, TX 79336, 806-894-9611.

CAMPUS CONCEALED CARRY - Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in South Plains College buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and South Plains College policy, license holders may not carry a concealed handgun in restricted locations. For a list of locations, please refer to the SPC policy at: (http://www.southplainscollege.edu/human_resources/policy_procedure/hhc.php). Pursuant to PC 46.035, the open carrying of handguns is prohibited on all South Plains College campuses. Report violations to the College Police Department at 806-716-2396 or 9-1-1.

DIVERSITY STATEMENT

In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

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TITLE IX PREGNANCY ACCOMMODATIONS STATEMENT

If you are pregnant, or have given birth within six months, Under Title IX you have a right to reasonable accommodations to help continue your education. To activate accommodations you must submit a Title IX pregnancy accommodations request, along with specific medical documentation, to the Director of Health and Wellness. Once approved, notification will be sent to the student and instructors. It is the student's responsibility to work with the instructor to arrange accommodations. Contact Chris Straface, Director of Health and Wellness at 806-716-2362 or email cstraface@southplainscollege.edu for assistance.

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