

ENGR 2308 – ENGINEERING ECONOMICS

South Plains College

Professor: Dr.Ramesh Krishnan (alias: Krams)

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

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

Textbook: Engineering Economic Analysis, (13th edn.): by Newman, Eschenbach, and Lavelle

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%)	$A \geq 90$
• Quiz/Homework	(10%)	$80 \leq B < 90$
		$70 \leq C < 80$
• Final exam	(30%)	$60 \leq D < 70$
		$F < 60$
	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: Emphasizes the systematic evaluation of the costs and benefits associated with proposed technical projects. The student will be exposed to the concepts of the “time value of money” and the methods of discounted cash flow. Students are prepared to make decisions regarding money as capital within a technological or engineering environment
This course is designed to present engineering students the major concepts and techniques of engineering economic analysis that are needed in the decision making process. The emphasis of this course is on the analytical analysis of money and its impact on decision making

STUDENT LEARNING OUTCOMES: After completing this course;

1. The student will use EXCEL spreadsheets and financial functions to model and solve engineering economic analysis problems.
2. The student will define and provide examples of the time value of money.
3. The student will demonstrate the effects of depreciation, income taxes, inflation and price change in engineering economic analysis problems.
4. The student will solve economic problems involving comparison and selection of alternatives by using variety of analytical techniques including present worth analysis, annual worth analysis, future

worth analysis, rate of return analysis, benefit-cost ratio, sensitivity and breakeven analyses, and payback period analysis.

An 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.

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	Introduction, Chapter 1
	1/16, Wed	Chapter 2
2	1/21, Mon	<i>MLK, Jr.</i>
	1/23, Wed	Chapter 2
3	1/28, Mon	Chapter 2
	1/29, Tues	Chapter 2
4	1/30, Wed	Chapter 3
	2/4, Mon	Chapter 3
5	2/6, Wed	Chapter 3
	2/11, Mon	Chapter 4
6	2/13, Wed	Quiz #1
	2/18, Mon	Chapter 4
7	2/20, Wed	Chapter 4
	2/25, Mon	Chapter 5
8	2/27, Wed	Exam #1
	3/4, Mon	Chapter 5
9	3/6, Wed	Chapter 5
	3/11 - 3/15	<i>Spring Break</i>
10	3/18, Mon	Chapter 6
	3/20, Wed	Chapter 6
11	3/25, Mon	Chapter 7
	3/27, Wed	Chapter 7
12	4/1, Mon	Chapter 7
	4/3, Wed	Exam #2

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