

Syllabus Spring 2025
Economy for Engineers & Scientists - CE 2326 - 004
 CRN 21837 **M-W-F** 01/21/2025 - 5/08/2025

Instructor: L.G. Perez, Ph.D.
 Office: Kelly Hall 211
 Phone: (915) 747-5511 (Office) 915 525 1620 (Cell)
 Email: lgperez@utep.edu
 Office Hours: MWF 30 minutes after class or by appointment
 Class Hours: **10:30 am– 11:20:am MWF**
 Classroom: Liberal Arts 107

Course Description

This course covers the basics of economic analysis from an engineering perspective. Because cost is such an important component in decision-making, various techniques for comparing alternatives on an economic basis are presented. Other topics include depreciation, inflation considerations, cost estimating, sensitivity analysis, and financial life events. After completing the course, the student should be able to identify which alternative should be selected from two or more mutually exclusive alternatives on the basis of economic considerations.

Objectives

1. Understand basic economic concepts (e.g., time value of money, present worth, rate of return, cost estimation, inflation, etc.) and their application in engineering.
2. Identify which alternative should be selected on the basis of economic considerations.

Textbook Information

Required Text: Basics of Engineering Economy, 3rd ed, 2021
 Authors: Leland Blank and Anthony Tarquin

Organization and Method of Instruction

The course will be taught using two venues (in the classroom, on-line Sync). Refer to the syllabus as a guide of how lectures will be delivered (at UTEP or BB Zoom) Use of Blackboard, archived presentations and web-based instruction may be used.

Grade Determination

≥ 90 ----- A
 80 - < 90 ----- B
 70 - < 80 ----- C
 60 - < 70 ----- D
 <60 ----- F

Either Exams 1&2 or the Midterm, whichever is higher, will be used in grading

Chap 1, 2 & 3-5 Exams	Mid Term Exam	Chap 6-8 & 10-12 Exams	Quizzes	Implementation Plan	Class Notes (Journal)	Homework Checks	Participation	Final	Total
2	1	2	4	1	1	1 or 2	1	1	Qty
11	22	11	2	6	6	6	4	26	Points
22	22	22	8	6	6	6	4	26	100

Class Policy

Attendance is mandatory. You will be on your honor as future engineers. All exams, quizzes and the final are closed book. Note cards or other resources are NOT allowed. You will need to bring a 10% interest table with you to all exams, quizzes and the final. All communication devices including calculators with a communications capability are disallowed during exams.

All devices with a communications capability will need to be stowed away far from your desk during exams.

Students are required to take exams in the classroom and will not be allowed to leave the room once the exam has started. A failing grade will be assigned to the student's exam for any student that takes the exam other than in the classroom or leaves the room during an exam. Please attend to bathroom requirements before start of an exam. Once you begin the exam, quiz or survey, you must complete it.

Prior to leaving from an exam, students must show their grade to the instructor or TA. Students leaving the examination room without prior approval will receive a failing grade on the exam.

A Final Exam grade of less than 30 will result in a final course grade of no higher than a 69.

Communication & Exams

Important communication needs to be sent via email: lgperez@utep.edu. Identify your class as **MWF or TR** to assist in a timely response. Do not send me text messages or emails through BB.

Grading appeals must be submitted to the instructor, in writing via email, no more than two weeks after the grade is returned or made available to the student. **Do not miss exams. Make-up exams will not be given.** Excuses such as weddings (other than your own) or quinceneras will **NOT** be valid excuses to miss a test or the final exam. In the event of a pre-mediated absence from an exam for such reasons as university sponsored activity, severe family emergencies or hospitalization, the instructor must be notified as early as possible **before** the date of the exam via email with documentation. It is the student's responsibility to advise the instructor of any missing grades prior to the final exam.

Academic Integrity

Academic regulations and procedures are governed by university policy. Students must abide by university rules on Academic Integrity and Scholastic Dishonesty. All students must do their own work on quizzes and exams. Any student **warned and/or suspected** of cheating will not be eligible for extra credit and participation points will be deducted. Students found cheating will face severe consequences. If any one student is found cheating, all extra credit is void for the entire class.

Special Accommodations

The University of Texas at El Paso provides, upon request, appropriate academic accommodation for students with disabilities. Please coordinate with the Center for Accommodations and Support Services instructor and the instructor early to ensure accommodations are provided in a timely manner. For more information, contact the Center for Accommodations and Support Services (<http://sa.utep.edu/cass/>).

COVID-19 PRECAUTION STATEMENT

Please stay home if you have been diagnosed with the flu, COVID-19 or are experiencing COVID-19 symptoms. If you are feeling unwell, please let me know as soon as possible, so that we can work on appropriate accommodations. If you have tested positive for COVID-19, you are encouraged to report your results to covidaction@utep.edu, so that the Dean of Students Office can provide you with support

and help with communication with your professors. The Student Health Center is equipped to provide COVID-19 testing.

Econ for Engrs & Scientists - CE 2326 004					
LA 107	CRN 21837 M-W-F 1/21/2025 - 5/08/2025 - 10:30 am– 11:20:am				
Class	Date	When	Topic	Notes	
1	Wed	1/22/2025	Introduction, Foundations of Engineering Economy		
2	Fri	1/24/2025	Chap 1.		
3	Mon	1/27/2025	Chap 1.		
4	Wed	1/29/2025	Chap 2 Factors:Time & Interest Affect Money		
5	Fri	1/31/2025	Chap 2.		
6	Mon	2/3/2025	Chap 2.		
7	Wed	2/5/2025	Chap 3 Nominal and Effective Interest Rates,	Census Day	
8	Fri	2/7/2025	Chap 3.		
9	Mon	2/10/2025	Exam 1 Chap 1, 2		
10	Wed	2/12/2025	Chap 3.		
11	Fri	2/14/2025	Chap 3.		
12	Mon	2/17/2025	Chap 4 Present Worth Analysis		
13	Wed	2/19/2025	Chap 4.		
14	Fri	2/21/2025	Chap 5 Annual Worth Analysis		
15	Mon	2/24/2025	Chap 5.		
16	Wed	2/26/2025	Chap 5.		
17	Fri	2/28/2025	Chap 6 Rate of Return Analysis		
18	Mon	3/3/2025	Exam 2 Chap 3, 4, 5		
19	Wed	3/5/2025	Chap 6.		
20	Fri	3/7/2025	Chap 6.		
21	Mon	3/10/2025	Spring Break	Sp Brk	
22	Wed	3/12/2025	Spring Break	Sp Brk	
23	Fri	3/14/2025	Spring Break		
24	Mon	3/17/2025	Chap 7 Benefit / Cost and PS Projects		
25	Wed	3/19/2025	Chap 7.		
26	Fri	3/21/2025	Chap 7.		
27	Mon	3/24/2025	MidTerm Exam Chap 1-5		
28	Wed	3/26/2025	Chap 7.		
29	Fri	3/28/2025	Cesar Chavez Holiday - No classes	No classes	
30	Mon	3/31/2025	Chap 8 Breakeven, Payback, Sensitivity, and Risk Analysis		
31	Wed	4/2/2025	Chap 8.		
32	Fri	4/4/2025	Chap 8.		
33	Mon	4/7/2025	Chap 9.		
34	Wed	4/9/2025	Chap 9, 10 Inflation		
35	Fri	4/11/2025	Chap 10.		
36	Mon	4/14/2025	Chap 10.		
37	Wed	4/16/2025	Exam 3 Chap 6-9		
38	Fri	4/18/2025	Chap 11 Cost Estimation and Allocation		
39	Mon	4/21/2025	Chap 11.		
40	Wed	4/23/2025	Implementation Plan		
41	Fri	4/25/2025	Implementation Plan, Chap 12		
42	Mon	4/28/2025	Chap 12 Depreciation		
43	Wed	4/30/2025	Journal Check		
44	Fri	5/2/2025	Exam 4 Chap 10-12		
42	Mon	5/5/2025	Open		
43	Wed	5/7/2025	Last Day Classes		
44	Fri	5/9/2025	Dead Day		
48	Fri	FINAL EXAM 5/16/2025 10:00 AM - 12:45			