

Syllabus Fall 2024

Economy for Engineers & Scientists - CE 2326 - 002

CRN 11017 **M-W-F** 08/26/2024 - 12/05/2024

Instructor: L.G. Perez, Ph.D.
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 Office Hours: MWF 30 minutes after class or by appointment
 Class Hours: **11:30 am– 12:20: pm MWF**
 Classroom: Quinn 212

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.

Objective

Understand basic economic concepts (e.g., time value of money, present worth, rate of return, cost estimation, inflation, etc.) and their application in engineering.

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

Chap 1, 2 & 3-5 Exams	Mid Term Exam	Chap 6-8 & 10-12 Exams	Quizzes	Implementation Plan	Journal	Homework Checks	Participation	Final	Total
2	1	2	5	1	1	2	1	1	Qty
10	20	11	2	7	7	4	4	22	Points
20	20	22	10	7	7	8	4	22	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. 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.

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 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 002				
CRN 11017 M-W-F 08/26/2024 - 12/05/2024				
Week	Date	When	Topic	Notes
1	Mon	8/26/2024	Introduction, Foundations of Engineering Economy	11:30 AM
2	Wed	8/28/2024	Chap 1.	
3	Fri	8/30/2024	Chap 1.	
4	Mon	9/2/2024	Holiday Labor Day	
5	Wed	9/4/2024	Chap 2 Factors: Time & Interest Affect Money	
6	Fri	9/6/2024	Chap 2.	
7	Mon	9/9/2024	Chap 2.	
8	Wed	9/11/2024	Chap 3 Nominal and Effective Interest Rates	
9	Fri	9/13/2024	Chap 3.	
10	Mon	9/16/2024	Exam 1 Chap 1, 2	
11	Wed	9/18/2024	Chap 3.	
12	Fri	9/20/2024	Chap 4 Present Worth Analysis	
13	Mon	9/23/2024	Chap 4.	
14	Wed	9/25/2024	Chap 4.	
15	Fri	9/27/2024	Chap 5 Annual Worth Analysis	
16	Mon	9/30/2024	Chap 5.	
17	Wed	10/2/2024	Chap 5.	
18	Fri	10/4/2024	Chap 6 Rate of Return Analysis	
19	Mon	10/7/2024	Exam 2 Chap 3, 4, 5	
20	Wed	10/9/2024	Chap 6.	
21	Fri	10/11/2024	Chap 6.	
22	Mon	10/14/2024	Chap 7 Benefit / Cost and PS Projects	
23	Wed	10/16/2024	Chap 7.	
24	Fri	10/18/2024	Chap 7.	
25	Mon	10/21/2024	MidTerm Exam Chap 1-5	
26	Wed	10/23/2024	Chap 7.	
27	Fri	10/25/2024	Chap 8 Breakeven, Payback, Sensitivity, and Risk Analysis	
28	Mon	10/28/2024	Chap 8.	
29	Wed	10/30/2024	Chap 8.	
30	Fri	11/1/2024	Chap 9.	
31	Mon	11/4/2024	Chap 9, 10 Inflation	
32	Wed	11/6/2024	Chap 10.	
33	Fri	11/8/2024	Chap 10.	

34	Mon	11/11/2024	Exam 3 Chap 6-9	
35	Wed	11/13/2024	Chap 11 Cost Estimation and Allocation	
36	Fri	11/15/2024	Chap 11.	
37	Mon	11/18/2024	Implementation Plan	
38	Wed	11/20/2024	Implementation Plan, Chap 12	
39	Fri	11/22/2024	HolidayThanksging Holiday Nov 23 - 24	
40	Mon	11/25/2024	Chap 12 Depreciation	
41	Wed	11/27/2024	Chap 12.	
42	Fri	11/29/2024	Open	
43	Mon	12/2/2024	Exam 4 Chap 10-12	
44	Wed	12/4/2024	Last class day for this class	
45	Fri	12/6/2024	DEAD DAY	No classes
	Wednesday	FINAL EXAM	12/11/24 1:PM	Notice: not during normal class hours