

Syllabus Spring 2021 Online Course
Economy for Engineers & Scientists - CE 2326 - 001
CRN 28485; Jan 19, 2021 - May 06, 2021; Online Sync/ Asynchronous

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: TR 30 minutes after class or by appointment
Class Hours: **TR 1:30 pm – 2:50 pm**
Classroom: Quinn Hall 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, and sensitivity analysis. 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/ Asynchronous). 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.

Web-based Instruction Site:

<http://engineering.utep.edu/enge/ie3326.htm>

USERNAME: ILUVIT

Password: 2EZ4ME

Grade Determination

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

	Exams	Quizzes	Journal Checks	Homework Checks	Final	Total
Number	4	2	2+	2	1	
Points	12+	5	5	5	20	
Total	50	10	10	10	20	100

Class Policy

You will be on your honor as future engineers. All exams and the final are closed book. Homework quizzes are open to your notes. Note cards or other resources are NOT allowed. Tables and formula sheets will be provided if needed. Calculators with a communications capability are not allowed during exams. All devices with a communications capability will need to be stowed away during exams.

Students 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 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.

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.

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 may 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.

The Center for Disease Control and Prevention recommends that people in areas of substantial or high COVID-19 transmission wear facemasks when indoors in groups of people. The best way that Miners can take care of Miners is to get the vaccine. If you still need the vaccine, it is widely available in the El Paso area, and will be available at no charge on campus during the first week of classes. For more information about the current rates, testing, and vaccinations, please visit epstrong.org.

Class Schedule

Week of	Chapter & Pages	Assignment	Notes Dec 19, 2021
Tuesday, January 18, 2021	Chapter 1 35 pp	Introduction, Read Chapter, Refer to BB for homework	
Thursday, January 20, 2021			
Tuesday, January 25, 2021	Chapter 2 24 pp		
Thursday, January 27, 2021			
Tuesday, February 1, 2021	Chapter 3 22 pp		2/2/2022 Spring Census Day
Thursday, February 3, 2021			
Tuesday, February 8, 2021			
Thursday, February 10, 2021		Exam 1: Chap 1-3	
Tuesday, February 15, 2021	Chapter 4 19 pp	Chap 4 Present Worth Analysis	
Thursday, February 17, 2021			
Tuesday, February 22, 2021	Chapter 5 11 pp	Chap 5 Annual Worth Analysis	
Thursday, February 24, 2021	Chapter 6 30 pp	Chap 6 Rate of Return Analysis	
Tuesday, March 1, 2021			
Thursday, March 3, 2021		Exam 2: Chap 4 - 6	
Tuesday, March 8, 2021	Chapter 7 19 pp	Benefit / Cost Analysis and PS Projects	
Thursday, March 10, 2021	Chapter 8 41 pp	Breakeven, Payback, Sensitivity, and Risk Analysis (not all sections)	
Tuesday, March 15, 2021		Spring Break Mar 15 - 19th	Spring Break
Thursday, March 17, 2021		Spring Break Mar 15 - 19th	Spring Break
Tuesday, March 22, 2021			
Thursday, March 24, 2021	Chapter 9 17 pp	Replacement and Retention Decisions	
Tuesday, March 29, 2021			
Thursday, March 31, 2021	Chapter 10 19 pp	Effects of Inflation	

Tuesday, April 5, 2021			
Thursday, April 7, 2021		Exam 3: Chap 7 - 10	
Tuesday, April 12, 2021	Chapter 11 24 pp	Chap 11 Cost Estimation and Allocation	
Thursday, April 14, 2021			
Tuesday, April 19, 2021	Chapter 12 20 pp		
Thursday, April 21, 2021			
Tuesday, April 26, 2021	Chapter 13 31 pp	After - Tax Economic Analysis	
Thursday, April 28, 2021			
Tuesday, May 3, 2021		Final Homework, Journal Review	
Thursday, May 5, 2021		Exam 4: Chap 10 - 13	
Thursday, May 12, 2021		Final Exam - Thursday, May 12. 1:00 pm - 3:45 pm	