

## Syllabus

### CE 2326 & IE 2326 - Engineering Economy – Fall, 2010

#### 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, and cost estimating. 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.

#### Textbook Information

Required Text: Engineering Economy, 6<sup>th</sup> Ed.  
Authors: L.T. Blank and A.J. Tarquin

#### Organization and Method of Instruction

The course will essentially be taught by the conventional lecture method. However, it can also be learned on a self-instructed basis at two different sites on the World Wide Web (see URLs below). The first site resides at McGraw Hill and contains condensed explanations of the chapter materials, FE Exam review questions, T/F questions, multiple choice questions, and spreadsheet examples, and links to various sites pertinent to economic analysis. The second site is the Instructor's web site containing (1) Power point presentations with even more condensed form than the written materials; (2) Answer Sheets for exams and quizzes; (3) Practice Problems; and (4) Grades

The web site addresses are as follows:

*Web Site Addresses:*

1. <http://highered.mcgraw-hill.com/sites/0072432349/>
2. [www.mixeddisinfectants.com/](http://www.mixeddisinfectants.com/) Click on educational training link

#### Class and Test Schedule

The exams will cover more than one chapter as shown in the class schedule. **Missed exams or Quizzes cannot be made up except by taking the final exam.** Failure to take an exam or quiz by the specified date may require the student to take the final exam and substitute that grade for the missed exam(s).

#### Cheating Policy

All graded exams and quizzes are copied prior to return to the students. Students who cheat will be reported to the Dean of Students for disciplinary action that could include expulsion from School.

**Method of Evaluation**

The final course grade will be determined from the grades on five exams, and four quizzes OR the final exam grade. The quiz average will count as one exam. The exams covering specified chapters will be given as shown on the attached schedule. A comprehensive final exam will be given which can be used to replace all or missed exam(s) and quiz grades. The overall course average will be based on the highest of: 1). the 5 hour exams and 4 quizzes (1 exam equivalent) average OR 2). The final exam grade OR 3). The re-calculated average with final exam grade substituting for missed exams and quizzes. **NO EXAMS OR QUIZZES ARE DROPPED TO RE-CALCULATE THE STUDENT’S AVERAGE. NO EXTRA CREDIT PROJECTS ARE GIVEN TO STUDENTS TO RAISE THEIR COURSE AVERAGE. THERE IS NO PARTIAL CREDIT GIVEN FOR ANSWERS TO QUESTIONS ON TESTS AND QUIZZES.** The course grade will be derived from the student’s overall average in accordance with the ranges shown in Table 1 below.

**Instructor Objective**

The instructor’s objective is for the class average to be at least 70% on the 5 hour exams and 4 quizzes that are taken OR the final exam average. The missed exams or quizzes will not be calculated as part of the class average grade **AND LOWEST GRADE FOR EXAMS OR QUIZZES WILL NOT BE DROPPED TO IMPROVE STUDENT AVERAGE. INSTRUCTOR WILL DROP ANY STUDENT WITH EXCESSIVE ABSENCES.**

**Table 1 – Grade Determination**

**Final Average, % Course Grade**

>=90-----	A
80 to <90-----	B
70 to <80-----	C
60 to <70-----	D
<60 -----	F

**Class Time/Place**

Time: Tuesday and Thursday at 7:30 am – 8:50 am  
Place: CRB 205

**Instructor and Teaching Assistant Office Hours**

Douglas Rittmann, Ph.D., P.E., Lecturer  
Office location: Engineering Building, Room E201H. Instructor email: [rittmann@utep.edu](mailto:rittmann@utep.edu).  
Instructor Office Hours: T and TR at CRB 205, 0700 am to 9:00 am or by appointment at Eng. Bldg, Rm E201H. Teaching Assistant office hours for this FALL 2010 are: Tuesday and Thursday from 7:30am to 12:30pm and by appointment.

**Class Schedule**  
**CE 2326 & IE 2326**

<b><u>Date</u></b>	<b><u>Assignment</u></b>
Aug 24	Introduction
Aug 26	Chapter 1- Foundations of Engineering Economy
Aug 31	Chapter 2- Factors: How Time and Interest Affect Money
Sept 2	Chapter 3- Combining Factors
Sept 7	Problems + Quiz 1
Sept 9	Problems + Quiz 1 Answers
Sept 14	Test 1
Sept 16	Chapters 4 & Test 1 answers - Nominal and Effective Interest Rates
Sept 21	Chapter 5 - Present Worth Analysis
Sept 23	Special Problems + Quiz 2
Sept 28	Special Problems + Quiz 2 Answers
Sept 30	Test 2
Oct 5	Chapter 6 - Annual Worth Analysis
Oct 7	Chapter 7- Rate of Return Analysis: Single Alternatives
Oct 12	Chapter 8 – Rate of Return Analysis: Multiple Alternatives
Oct 14	Problems + Quiz 3
Oct 19	Problems and Quiz 3 answers
Oct 21	Test 3
Oct 26	Chapter 9 – Benefit/Cost Analysis and Public Sector Economies
Oct 28	Chapter 11- Replacement and Retention Decisions
Nov 2	Chapter 13 – Breakeven Analysis
Nov 4	Problems and Quiz 4
Nov 9	Problems and Quiz 4 answers
Nov 11	Test 4
Nov 16	Chapters 14 & 15 & Test 4 answers- Effects of Inflation plus Cost Estimation and Indirect Cost Allocation
Nov 18	Chapter 16 & Practice Problems - Depreciation Methods
Nov 23	Special Problems
Nov 25	Thanksgiving - No Class
Nov 30	Test 5
Dec 2	Test 5 answers & Pre-Final Summary Evaluation
Dec 9	Final Exam: 7:00 am to 9:45 pm at CRB 205

\*Class schedule is tentative and it is subject to change by the instructor on short notice. It is the student's responsibility to attend classes in order to receive timely notification of any changes to schedule.