

# ISEN 302–504 Economic Analysis of Engineering Projects

Fall 2011

## Course Syllabus

**Time & Place:** MW 9:10-10:00 AM at ETB 1013

**Instructor:** CHIA-YEN LEE

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**Office hours:** MW 10:00-11:30AM or by appointment (please email me)

**Website:** <http://elearning.tamu.edu>

**Textbook:** Basics of Engineering Economy; by Leland Blank and Anthony Tarquin  
McGraw-Hill, 2008; ISBN 978-0-07-340129-4.

**Objective:** To understand and be able to analyze and compare engineering projects (or any types of investment) using techniques in the time value of money concept.

**Announcement:** Announcements and other information concerning the course will be maintained on <http://elearning.tamu.edu>. In addition, it will be used to distribute homework assignments, lectures, and other material as required during the course. Please check this web site daily. Any information posted on it will be as valid as if it was mentioned in class.

<b>Grading:</b>	Quiz & Homework	15%
	Project	15%
	Midterm 1	20%
	Midterm 2	20%
	Final Exam	30%

**Grades:** 90-100% **A**, 80-89% **B**, 70-79% **C**, 60-69% **D**, <60% **F**

### Course Policies

**Attendance:** The class participation is highly encouraged. Bonus points will be provided for a high percentage of attendance on randomly selected days. You will earn at most 3 bonus points for perfect attendance. Although no points will be deducted for missed classes, students are responsible for any material covered and announcements made in the class.

**Homework:** Homework assignments should be done individually, however, you are permitted to work with at most one class member on your homework, provided their name is acknowledged in that homework. Always use only one side of the paper and all pages must be stapled together. Homework assignments will be collected at the start of the class on the due date and will be considered as late after the collection. Late submissions will be accepted only on the due date or one

day after the due date and 15% penalty will automatically be deducted. Late homework assignment may be submitted in the instructor's departmental mailbox or directly to the instructor. Note that the mailbox is accessible only during regular working hours of the department.

**Quizzes:** I will announce dates of in-class quizzes before giving them. In-class quiz will take 5-10 minutes in the end of class. No make up will be given for missed quizzes.

**Examinations:** All exams will be comprehensive up to a specified topic although emphasis will be on the newer material. There will be no make-up examinations unless prior arrangements have been made with the instructor. A written authorized excused is required.

**Project:** This is a team-work project. Each team has at most three members. The objective of the project is to apply the tools you learn from class to practical problem. The project should follow the project instruction (delivered to you in class later) and write a brief project report (3-5 pages). The report violating the project instruction is not accepted.

Any disagreements or questions regarding any graded material must be discussed within one week after it was returned. No grade will be changed after one week time limit.

**Bonus Points:** Bonus points are extra credit. You can still get 100% without doing any bonus work. Bonus points are awarded for good attendance and additional work on assignments.

**Academic Integrity:** "An Aggie does not lie, cheat or steal, nor do they tolerate those who do." It is the responsibility of students and instructors to help maintain scholastic integrity at the university by refusing to participate in or tolerate scholastic dishonesty. If you personally observe any act of academic dishonesty you are required by the code to report such activity in a timely manner to your instructor or any authorized representative of the academic department so affected. Failing to report a know incident or incidents of academic dishonesty can assume that you are in violation of the Code. For more information about academic integrity, see the web site <http://www.tamu.edu/aggiehonor>.

**The Americans with Disabilities Act (ADA)** is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Department of Student Life, Services for Students with Disabilities, in Cain Hall or call 845-1637. If you require special testing accommodation please report to your instructor the first week of the semester for any special testing needs you may require. You will be asked to report to the Department of Student Life for certification of your needs. All communication regarding any issues involving special needs will be held in strict confidence.

## Tentative Course Outline

Week	Date	Topic	Homework		Quiz	Project
			Assign	Due		
1	29-Aug	Chapter 1- Foundations				
1	31-Aug	Chapter 1- Foundations				
2	5-Sep	Chapter 2- Factors	HW1			
2	7-Sep	Chapter 2- Factors				
3	12-Sep	Chapter 3- Nominal & Effective		HW1		
3	14-Sep	Chapter 3- Nominal & Effective			Q1	
4	19-Sep	Chapter 3- Nominal & Effective	HW2			
4	21-Sep	Chapter 4- Present Worth				
5	26-Sep	Chapter 4- Present Worth		HW2		
5	28-Sep	Chapter 4 & Review				
<b>6</b>	<b>3-Oct</b>	<b>Exam 1</b>				
6	5-Oct	Chapter 5- Annual Worth				
7	10-Oct	Chapter 5- Annual Worth	HW3			
7	12-Oct	Chapter 5- Annual Worth				
8	17-Oct	Chapter 6- Rate of Return		HW3		
8	19-Oct	Chapter 6- Rate of Return				
9	24-Oct	Chapter 6 & Project			Q2	Instruction
9	26-Oct	Chapter 7- Benefit/Cost				
10	31-Oct	Chapter 7- Benefit/Cost	HW4			
10	2-Nov	Chapter 8- Breakeven, Sensitivity & Packback				
11	7-Nov	Chapter 8- Breakeven, Sensitivity & Packback		HW4		
11	9-Nov	Chapter 8 & Review				
<b>12</b>	<b>14-Nov</b>	<b>Exam 2</b>				
12	16-Nov	Project Discussion				
13	21-Nov	Chapter 12- Depreciation	HW5			
13	23-Nov	Chapter 12- Depreciation				
14	28-Nov	Chapter 12- Depreciation		HW5	Q3	
14	30-Nov	Chapter 13- After-Tax Analysis				
15	5-Dec	Chapter 13- After-Tax Analysis				Due
15	7-Dec	Reading Day				
<b>16</b>	<b>9-Dec</b>	<b>Final Exam 10am-noon</b>				