

EK409 ENGINEERING ECONOMY
SPRING 2011
COURSE SYLLABUS

Prof. T. A. de Winter
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Office Hours: Monday 7-8AM, 2-4PM
Tuesday 7-11:15AM, 1-3:30PM
Wednesday 7-8AM, 2-4PM
Thursday by appointment only
Friday 7-11:15AM
Text: Engineering Economy, Thuesen & Fabrycky, 9th edition, Prentice Hall, ISBN 0-13-028128-X
Classroom: 8 St. Mary's Street, PHO 211
Time: Monday, Wednesday 12:00-2:00PM
Season ticket location: Agganis Arena Sect. 112, Row Q, Seat 2

GRADING

ATTENDANCE: Attendance will be taken and will count as 10% of the semester grade. If you have 2 or fewer absences, you will get full credit for attendance.

EXAMS: There will be an open book in-class exam on Monday, February 22. The take home exam from April 6 to April 11 will also be open book. There will be a final take home exam. The average exam grade will count as 60% of the semester grade.

HOMEWORK: There will be at least 10 homework assignments which are due on assigned dates. The lowest homework grade will be dropped, the homework average will count 20% of the semester grade.

PROJECT: There will be a project, to be done by teams of 4 to 6 students. The project will be the modification of the annual report of a manufacturing company or the preparation of a 2 year business plan for a manufacturing company. The project grade will be 10% of the semester grade.

FINAL GRADES: Those students, who on the last day of class have an average of 90% or better, have earned an A in the course and are exempt from taking the final exam. Students with an average of 80% or better are also exempt from taking the final exam, but may, at their discretion, choose to take the final to improve their course average. Students with a course average of less than 80% on the last day of class have not demonstrated evidence of having sufficient working knowledge of the course material and are required to take the final exam.

GRADING SUMMARY:	EXAM AVERAGE	60%
	HOMEWORK	20%
	PROJECT	10%
	ATTENDANCE	10%

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LECTURE SCHEDULE

1. Wednesday, January 19
2. Monday, January 24
3. Wednesday, January 26
4. Monday, January 31
5. Wednesday, February 2
6. Monday, February 7
7. Wednesday, February 9
8. Monday, February 14
9. Wednesday, February 16
10. Tuesday, February 22*
11. Wednesday, February 23
12. Monday, February 28, in class exam
13. Wednesday, March 2
14. Monday, March 7
15. Wednesday, March 9
16. Monday, March 21
17. Wednesday, March 23
18. Monday, March 28
19. Wednesday, March 30
20. Monday, April 4
21. Wednesday, April 6, take home exam
22. Monday, April 11, take home exam due
23. Wednesday, April 13
24. Wednesday, April 20
25. Thursday, April 21**
26. Monday, April 25
27. Wednesday, April 27
28. Monday, May 2
29. Wednesday, May 4, last EK409 class

* Monday, February 21, 2011 is a holiday, Tuesday will have a Monday class schedule

** Monday, April 18, 2011 is a holiday on which you can observe the Boston Marathon in Kenmore Square, Thursday will have a Monday class schedule.

An attendance sheet will be circulated during each lecture. It is your responsibility to sign the sheet. If the attendance sheet happens to pass your seat before you entered, please sign the sheet at the desk at the end of the lecture.

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 LECTURE TOPICS COVERED

1. Contracts, interest relationships
2. Economic equivalence, retirement plans
3. Inflation
4. Financing of new enterprises
5. Stock ownership, stock market, annual reports
6. Comparison of alternate economic choices
7. Decision making among alternatives
8. Replacement alternatives
9. Break-even and minimum cost analysis
10. Indirect cost analysis and allocation
11. Preparation of cost proposals
12. Professional ethics, protocol, conflict of interest
13. Benefit and cost analysis
14. Inventories
15. Accounting systems, double entry bookkeeping
16. Depreciation
17. Income taxes
18. Patents, intellectual property
19. Employment contracts, offers
20. Corporate annual reports

READING ASSIGNMENTS

All reading assignments are from the required text listed above.

TOPIC	PAGES	WEEK*
1. Introduction to Engineering Economy	1-34	-
2. Interest relationships (Chapter 3)	35-65	Jan. 28
3. Economic equivalence (Chapter 4)	72-102	Feb. 4
4. Company startup and stockholders	Handout	Feb. 11
5. Inflation (Chapter 5)	115-139	Feb. 18
6. Bases for comparison (Chapter 6)	152-180	Feb. 25
7. Analysis of alternatives (Chapter 7)	190-225	Mar. 4
8. Evaluating production (Chapter 8)	244-284	Mar. 11
9. Indirect costs and proposals	Handout	Mar. 25
10. Evaluating replacement (Chapter 9)	297-331	Apr. 1
11. Evaluating public activities Chapter 10)	348-374	Apr. 9
12. Accounting and depreciation (Chapter 11)	388-414	Apr. 15
13. Income Taxes (Chapter 12)	420-456	Apr. 22
14. Estimating cost elements (Chapter 13)	468-499	Apr. 29

*Week ending

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HOMEWORK ASSIGNMENTS

ASSIGNMENT	DUE DATE
1	Friday, January 28
2	Friday, February 4
3	Friday, February 11
4	Friday, February 18
5	Friday, February 26
6	Friday, March 4
7	Friday, March 11
8	Friday, March 25
9	Friday, April 1
10	Friday, April 15
11	Friday, April 22

All homework assignments will be handed out during the week of the due date. Graded homework can be picked up from the slots next to the office door. Homework can be handed in at the office. If the door is open, just find the homework pile for that assignment. If the door is closed, please slide your homework under the door.

DO NOT LEAVE YOUR HOMEWORK IN THE MAIL SLOTS NEXT TO THE OFFICE DOOR, THEY ARE FOR GRADED HOMEWORK ONLY!!!

From time to time supplementary material may be handed out in class. Whenever there is a handout, including homework assignments, it will be circulated through the classroom, and copies will be available on the desktop nearest each door. If, when entering class, you notice a handout on the corner desk, please pick one up on the way to your seat. In the event you happen to miss a handout in class, extra copies of the handout will be available in the rack outside Room 138, 15 St. Mary's Street.

The work you submit for grading is expected to be your own. On your exams you will be expected to affirm that by signing a short statement to that effect, a copy of which is shown on the attached sample exam cover. While homework assignments don't require an individual statement like the exam, they are expected to be your own work and your submission of homework in your name will be deemed to confirm that it is your work. In the first case of apparent plagiarism on homework, the homework grade will be evenly divided among the students in question. In subsequent cases involving the same students, a zero grade will be given on those homeworks. Obvious and flagrant cases may be brought before the Committee on Students.

SAMPLE EXAM COVER PAGE

EK409 ENGINEERING ECONOMY
SPRING 2010

March 31, 2010

This exam is due on Monday, April 5, 2010 at 12 noon sharp, at the start of the EK409 lecture.

NAME: _____

ID # : _____

PROBLEM	POINTS
1	_____
2	_____
3	_____
4	_____
5	_____

TOTAL	_____

STATEMENT

This examination is my own work. I have neither collaborated nor discussed this exam with anyone and I have neither received nor given any help in solving the problems I am submitting for grading.* I have not had access to anyone else's solution, notes or worksheets for this exam, nor have I given anyone else access to my exam solution, notes or worksheets.**

SIGNATURE

DATE

*with the exception of the instructor

**Anyone handing in someone else's exam is deemed to have had access to that exam. If you cannot hand your exam in on time yourself, contact the instructor for advice.

General Information

In order to bring current relevance to the teaching of engineering courses, to remain up-to-date on the state of the art of various technologies and to satisfy my own curiosity, I subscribe to and read(or scan) a number of publications. Some of these are available in my office for your use. If I am aware of the particular interests of some of my students, I look for and save copies of relevant, current articles about those interests. If you would like to indicate such interests to me on the appropriate line of your registration form for this course, I'll try to spot relevant articles and call your attention to them or provide you with copies for your use and information. Feel free to indicate your interest in a company, industry, technology, product line or one of the publications listed below. A partial list of publications follows.

Daily:

The New York Times
The Wall Street Journal
The Boston Globe
The Nashua Telegraph

Weekly:

Time	Fortune
Newsweek	
Forbes	
Business Week	
Aviation Week*	
The New Yorker	

Monthly:

Popular Science*	Outdoor Life*
Popular Mechanics*	Field and Stream*
Technology News(MIT)*	Wooden Boat
The Atlantic*	Scientific American*
Car and Driver*	Guns and Ammo*
Automotive Industries*	American Hunter*
Aerospace Engineering*	
Mechanical Engineering*	
Marine News*	
Invention and Technology*	
Maritime Reporter*	
Road and Track*	
Marine Technology*	
Yachting*	

Sporadically:

The Times(London)	Trout and Salmon
Der Spiegel	
International Herald Tribune	

*Publications marked with an asterisk are routinely available in my office

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CLASS LIST REGISTRATION

Note: This information and statement simply confirm your intention to attend this course, and your receipt and understanding of the syllabus. It is strictly for the use of the instructor.

NAME: _____

ID # : _____

MAJOR: _____

TERM PHONE #: _____

e-mail address: _____

SPECIAL INTERESTS** _____

** See general information sheet, preceding page

I acknowledge the receipt of the EK409 ENGINEERING ECONOMY Syllabus for the SPRING 2011 semester. I have read and I understand the grading policy and the due dates for exams. I have also read the sample exam cover and I understand the statement which I am expected to sign with each exam in the course.

SIGNATURE

DATE