### EK409 ENGINEERING ECONOMY FALL 2008 COURSE SYLLABUS

Prof. T. A. de Winter

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Office hours: Monday 7\*-11AM, 1-4PM

Tuesday 7\*-12AM

Wednesday by appointment only Thursday 7\*-12AM only

Friday 7\*-11:15AM

\*The 15 St. Mary's Street door first opens at 7:45AM

Text: Engineering Economy, Thuesen & Fabrycky,

9th edition, Prentice Hall, ISBN 0-13-028128-X

Classroom: 8 St. Mary's Street, Room PHO 203 Lecture Time: Tuesday, Thursday 12:00-2:00PM

Grader: Ann Shedd

TERRIER HOCKEY : Agganis Arena Sect.112, Row O,

Season ticket location Seat 2

#### GRADING

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

There will be an open book in-class exam on Tuesday EXAMS: October 17. The take home exam, from November 16 to November 23 will also be open book!! There will also be a final exam. The exam average will constitute 60% of the semester grade.

HOMEWORK: There will be regular homeworks which are due on the assigned dates. The lowest grade will be dropped for anyone submitting all homeworks. Homework is 20% of the semester grade.

PROJECT: The project will be done by teams of 4 to 6 students. The project will involve modifying an annual report of a major corporation or the creation of a business plan for a small manufacturing company. The project grade will be 10% of the semester grade.

Those students, who on the last day of classes have an average of 80.00%\*\*\* or better are exempt from taking the final exam. Students with an average of 90.00% or better have earned an A. Anyone may take the final to improve their course average. Students with an average below 80.00% have not demonstrated sufficient working knowledge of the course material and are required to take the final exam. \*\*\* (see caution below)

GRADING SUMMARY: EXAM AVERAGE 60% HOMEWORK 20%

> PROJECT 10% ATTENDANCE 10%

### EK409 ENGINEERING ECONOMY FALL 2008 LECTURE SCHEDULE

- 1. Tuesday, September 2
- Thursday, September 4
   Tuesday, September 9
- 4. Thursday, September 11
- 5. Tuesday, September 16
- 6. Thursday, September 18
- 7. Tuesday, September 23
- 8. Thursday, September 25
- 9. Tuesday, September 30
- 10. Thursday, October 2
- 11. Tuesday, October 7
- 12. Thursday, October 9
- 13. Thursday, October 16\*
- 14. Tuesday, October 21
- 15. Thursday, October 23
- 16. Tuesday, October 28
- 17. Thursday, October 30
- 18. Tuesday, November 4
- 19. Thursday, November 6
- 20. Tuesday, November 11
- 21. Thursday November 13, take home exam
- 22. Tuesday, November 18, take home exam due
- 23. Thursday, November 20
- 24. Tuesday, November 25
- 25. Tuesday, December 2
- 26. Thursday, December 4
- 27. Tuesday, December 9
- 28. Thursday, December 11, last EK409 class
- \* Monday, October 8, 2007 is a Holiday, Tuesday will be a Monday class schedule

An attendance sheet will be circulated during each lecture. If the attendance sheet has passed your seat before you entered, please come to the desk at the end of the lecture to sign in.

\*\*\*CAUTION: The numerical grade average computed at the time of the last lecture may not include the last homework(or two) if they are not yet graded. This may result in a lowering of the homework and the course grade if the last homework is not handed in. By taking the average of 8 or 9 instead of 10 homeworks, students can have the lowest dropped if they are not missing any. If the last homework is not handed in this would add a zero, no homework grade is dropped in this case and the zero for the last assignment will be included in the average. This would more than likely lower the grade reported on the last day of class.

# EK409 ENGINEERING ECONOMY FALL 2008 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 analysis
- 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
- 16. Depreciation
- 17. Income taxes
- 18. Patents, intellectual property, trademarks, copyright
- 19. Employment considerations
- 20. Corporate Annual Reports

### READING ASSIGNMENTS

All reading assignments are from Thuesen and Fabrycky, ENGINEERING ECONOMY, 9th edition, Prentice Hall, 2000. From time to time supplementary material may be handed out in class. Whenever there is a handout, 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 that desk, please pick one up on your way to your seat. In the event you happen to miss a handout in class, extra copies of the handouts will be available in the rack outside 15 St. Mary's Street, Room 138.

	TOPIC	PAGES		WEEK*
1.	Introduction (Chapters 1 and 2)	1-34	NA	
2.	Interest relationships (Chapter 3)	35-65	Sept.	7
3.	Economic Equivalence (Chapter 4)	72-102	Sept.	14
4.	Company Startup and Stockholders	Handout	Sept.	21
5.	Inflation (Chapter 5)	115-139	Sept.	28
6.	Bases for Comparison (Chapter 6)	152-180	Oct.	6
7.	Analysis of Alternatives (Chapter 7)	190-225	Oct.	13
8.	Evaluating Production Operations (Ch8)	244-284	Oct.	20
9.	Indirect Costs and Proposals	Handout	Oct.	27
10.	Evaluating Replacement Alts. (Ch. 9)	297-331	Nov.	2
11.	Evaluating Public Activities (Ch 10)	348-374	Nov.	9
12.	Accounting and Depreciation (Ch. 11)	388-414	Nov.	16
13.	Income Taxes (Chapters 12)	420-456	Nov.	30
14.	Estimating Economic Elements (Ch. 13)	468-499	Dec.	7

- 15. Scheduling, Planning, Employment
- 16. Patents, Intellectual Property

<sup>\*</sup> week ending

## EK409 ENGINEERING ECONOMY ATTENDANCE AND HOMEWORK ASSIGNMENTS FALL 2008

An attendance sheet will be circulated in class each day. It is your responsibility to sign the sheet before the start of the next class in the classroom. Excessively and chronically late students may not get full credit for signing the attendance sheet after the end of the class.

ASSIGNMENT	DUE	DATE
1	Friday,	September 14
2	Friday,	September 21
3	Friday,	September 28
4	Friday,	October 5
5	Friday,	October 12
6	Friday,	October 19
7	Friday,	October 26
8	Friday,	November 2
9	Friday,	November 9
10	Friday,	November 30

All homework problems will be assigned 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 SLOTS NEXT TO THE OFFICE DOOR!! THE SLOTS ARE FOR GRADED HOMEWORK, AND UNGRADED HOMEWORK MAY NEVER BE FOUND THERE BY THE GRADER.

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

#### SAMPLE EXAM COVER PAGE

## EK409 ENGINEERING ECONOMY FIRST EXAMINATION

March 18, 2000

This exam is due on Wednesday, March 20, 2000 at 12:00PM sharp, at the start of the lecture

	MARIE .	
	ID #:	
PROBLEM		POINTS
1		
2		
3		
J		
4		
5		
TOTAL		

NAME.

### STATEMENT

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

*	Anyone	]	handing	in	anoth	er	stu	dent'	S	exam	is	deemed	to	have	had
ac	ccess t	0	that	exam	. If	ус	ou c	can't	r	nand	your	exam	in	on	time
V	ourself	,	contact	: the	inst	ruc	ctor	for	ad	lvice.					

DATE

SIGNATURE

<sup>\*\*</sup> With the exception of the instructor.

# EK409 ENGINEERING ECONOMY PUBLICATIONS GENERAL INFORMATION

This course is generally considered to be the minimum business and financial background engineers require to participate in technical management. It is also the first step for those who think of getting an MBA in the future. It is important to have some curiosity about the industry and companies where you might seek your career opportunity. Few of you have the time or attention span(after devoting most of it to your courses) to attempt to keep up with the latest developments in technology, industries or companies.

In order to bring current relevance to the teaching of engineering courses and to satisfy my own curiosity, I subscribe to and read a number of publications. Some of these are available in my office for your use. If I am aware of the particular interest of one of my students, I look for and save copies of relevant, current articles about those interests. If you would like to indicate such interests in your registration form below, I'll gladly try to spot relevant articles and call them to your attention or provide copies of them for your use. Feel free to indicate your interest in a company, industry or technology on the Class List Registration below. A partial list of publications follows.

Daily:

The New York Times

The Wall Street Journal

The Boston Globe

The Nashua Telegraph

The Financial Times

### Weekly:

Time

Newsweek

US News and World report

Forbes

Business Week

New Yorker

Aviation Week\*

The Economist

### Monthly:

Popular Science\*

Popular Mechanics\*

Technology News (MIT) \*

The Atlantic

Manufacturing Engineering\*

Automotive Industries\*

Mechanical Engineering\*

Aerospace Engineering\*

Marine News\*

Maritime Reporter\*

Road and Track\*

Yachting\*

Scientific American\*

\*Current and recent issues of publications marked with an asterisk are routinely available in my office.

## EK409 ENGINEERING ECONOMY FALL 2008

### CLASS LIST REGISTRATION

Note: This information and statement simply confirm your intention to attend this course, and your understanding of the syllabus, the grading policy and the honor system. It is strictly for the use of the instructor and the teaching assistant in the course. This information is necessary to list you on the grade sheet for the course. Since the official class lists are not available until well after the start of the semester, and even then are not always complete, you cannot be sure of being on the grade sheet until you have submitted this information.

NAME:	•
ID#:	-
MAJOR:	-
TERM PHONE #:	*
e-mail address:	*
SPECIAL INTERESTS .	

\* Listing your phone number and/or e-mail address will allow us to get in touch with you in case of excessive absences, missed assignments or exams or to make wake-up calls.

I acknowledge the receipt of the EK409 ENGINEERING ECONOMY syllabus for the FALL 2008 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 honor policy and the honor system statement which I am expected to sign with each exam in the course.

SIGNATURE	DATE