



Department of Economics Course Outline

Term: Spring 2006

Course: Engineering Economics 209

Section: 20

Time:
MW 09:00 ? 11:50 [Lecture]
M 12:00 ? 13:50 [Tutorial 20]
W 12:00 ? 13:50 [Tutorial 21]

Place:
ICT 121
ICT 116
ICT 116

Instructor: Mr. Doug McClintock

255-2551 [work]
277-1396 [home]
220-6550 [U of C]

Office: SS 447

Telephone: 255-2551 [work]
277-1396 [home]
220-6550 [U of C]

Office Hours: M 14:30 ? 15:30 [Subject to Change]
W 14:30 ? 15:30 [Subject to Change]
or by appointment

E-Mail: dmcclintock@acsengineering.com
douglas.mcclintock@shaw.ca

Textbook(s)

Park, Porteous et al., Contemporary Engineering Economics (Canadian Perspective), Addison-Wesley, 2nd Canadian Edition [**Required Text**]

Mankiw, N. Gregory, Ronald D. Kneebone, Kenneth J. McKenzie, and Nicholas Rowe (2004). *Principles of Macroeconomics*. Third Canadian Edition. Toronto: Thomson Nelson. [**Supplementary Text**]

Book(s) on Reserve: None

Blackboard:

This course will make use of Blackboard - students who are registered in the course can log on at <http://blackboard.ucalgary.ca/webapps/login>

Tutorials

There will be two hours of tutorials each week and quizzes will be held in the tutorials. The tutorials will start the week of May 22, 2006.

Final Exam

The final exam will last two hours and will be scheduled by the Registrars office.

Course Outline:

The purpose of this course is to introduce the engineering student to the discipline of economics and its importance in the field of engineering. The first part of the course looks at the broad definition of economics and the concept of supply and demand and price elasticity. We then turn our focus on the important macroeconomic issues such as GDP, inflation, unemployment, business cycle theory, and the financial markets.

The second (and most comprehensive) part of the course examines the time value of money and how engineers use the time value of money to make important economic decisions. In this section, we examine how interest rates and different compounding periods influence the future value of various capital investments. Future value and present value of annuities, bond and mortgages are also explored. Once we get a solid foundation in this area, we then use these tools to determine the net present value, internal rate of return and payback period of various investment options. The last part of the course deals with the effects of depreciation, taxes and inflation on capital budgeting decisions. Replacement analysis of equipment is also examined.

	<u>Course Content</u>	<u>Text</u>
1.	Introduction	Chapter 1 (<i>Mankiw et al. and lecture notes</i>)
2.	Micro and Macroeconomics	Chapters 4,5,6,10,11,12 (<i>Mankiw et al.</i>) and lecture notes
3.	Economic Equivalence and Interest Formulae	Chapters 2 and 3 (Park et al.)
4.	Analysis of Independent Investments	Chapters 4, 5 and 6
5.	Replacement Analysis / Make or Buy Decisions	Chapters 6 and 11
6.	Depreciation and Income Taxes	Chapters 7 and 8
7	Developing After Tax Cash Flows (with and without borrowed funds)	Chapter 9
8	Lease or Buy Decisions	Chapter 11

Note: a more comprehensive breakdown of topics will be outlined on Blackboard

Grade Determination and Final Examination Details:

	Number	Percentage
Midterm Examinations	1	35%
Quizzes (highest 3 marks will be selected)	4	15% (5% each)
Final Examination	1	50%
Total		100%

The midterm exam will consist of multiple choice and short/answer questions. Some of the short answer questions will consist of a graph (together with a written explanation) and/or calculations. The quizzes will consist of numerical calculations and will be held during the tutorials. The final exam will consist of numeric calculations and financial problems.

Tests and final exams are marked on a numerical (percentage) basis, and then converted to letter grades. The course grade is then calculated using the weights indicated above. As a guide to determining standing, these letter grade equivalences will generally apply:

A+	97 - 100	B+	80 - 84	C+	67 - 69	D+	55 - 59
A	90 - 96	B	75 - 79	C	63 - 66	D	50 - 54
A-	85 - 89	B-	70 - 74	C-	60 - 62	F	0 - 49

If for some reason, the distribution of grades determined using the aforementioned conversion chart appears to be abnormal, the instructor reserves the right to change the grade conversion chart if the instructor, *at the instructor's discretion*, feels it necessary to more fairly represent student achievement.

Important Dates:

Spring Session

Begin

End

Lectures	May 15	June 27
Midterm Break	June 6	
Final Exams	June 28	June 30

Non-programmable calculators will be allowed during the writing of tests or final examinations.

Notes:

- You need not receive a passing mark on any particular component of the course, but failure to submit any assignment or sit for any exam (without prior instructor approval or medical verification), will result in an "F" for the course.
- No "make up" exams will be given. If you find it necessary to miss an exam, notify me (in advance if possible) and produce a valid medical certificate. I will re-adjust the weighing of the missed exam to other exams or work in the course (the weighing of the missed exam will be at the instructor's discretion). In the event that a deferred final exam is granted, keep in mind that this exam does not have to cover the same material or have the same structure (e.g. format) as the regular final exam.
- Make yourself familiar with the academic regulations in the University's Calendar. For information on student misconduct, a good source can be found at: http://www.ucalgary.ca/pubs/calendar/2005/how/How_L.htm.
- Programmable (graphing) calculators and cell phones are not to be used in any exam.
- Plagiarism and Cheating: Students shall not submit words, ideas, images or data of another person as their own in any academic writing, essay, thesis, research, project or assignment in a course or program of study. Plagiarism and cheating are serious academic offences that will be dealt with severely.
- Students seeking reappraisal of a piece of graded work (assignment, midterm test) should discuss their work with the instructor within *seven* days of the work being returned to the class.
- Students will be responsible for all material listed on the course outline, regardless of whether or not the material has been covered in class, unless the instructor notifies the class that the material will not be covered.
- Students who are registered in the course can log on to Blackboard at: <http://blackboard.ucalgary.ca/webapps/login>. Further announcements concerning Blackboard will be made throughout the semester. Practice questions will be available on Blackboard and I will make available the answer key to these questions. Submitting practice questions for grading is not required but it is highly recommended that students complete these questions, since success in engineering economics is highly related to learning by doing. In addition these questions are fun.
- I try my best to respond to all emails but sometimes this is just impossible with both teaching and work commitments. However, due to the pervasiveness of computer viruses, I immediately delete all messages that I do not recognize. For this reason, please make sure that you identify yourself in the subject box of your email (which is common courtesy anyway).

Students' Union Vice President Academic:

Paige Forsyth

Phone: 220-3911

E-Mail: kuvpaca@ucalgary.ca

Students' Union Faculty Representative (Social Sciences)

Teale Phelps-Bondaroff

Phone: 220-3913 Office: MSC 251

E-Mail socialscirep@su.ucalgary.ca

Society of Undergraduates in Economics (S.U.E.)

E-Mail kocuecon@ucalgary.ca

Safewalk / Campus Security: 220-5333

* * * * *

DM:pst

2006-03-29