

Economics 209(L02) Engineering Economics

Instructor:	Douglas McClintock	Lecture Location:	ENE 241
Phone:	220-2837	Lecture Days/Time:	TR 17:00 – 18:15
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Office Hours:	MW 12:00 – 13:00 TR 15:00 – 16:00	Fall 2015	

Textbook(s):

Park, Zuo et al., *Contemporary Engineering Economics (Canadian Perspective)*, Addison-Wesley, 3rd Canadian Edition [**Required Text**]

Mankiw et al. *Principles of Macroeconomics*. Sixth Canadian Edition. Toronto: Thomson Nelson. [**Optional Text**]

Note: the Fourth and Fifth edition can also be used.

Book(s) on Reserve: (Taylor Library)

Mankiw et al. *Principles of Macroeconomics*. Sixth Canadian Edition. Toronto: Thomson Nelson.

Desire2Learn: This course will make use of the Desire2Learn (D2L) platform. Students who are registered in the course can log on at <http://d2l.ucalgary.ca> through their student centre. Please note that D2L features a class e-mail list that may be used to distribute course-related information. These e-mails go to your University of Calgary e-mail addresses only.

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 an overall view of Canada's economy in comparison to other economic systems. We then turn our focus on the important macroeconomic issues such as GDP, inflation, business cycle theory, and the financial markets. Since the interest rate is the firm's financial cost of capital, we explore the role of the Bank of Canada and its relationship with other financial institutions in determining short term interest rates.

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 Topics</u>	<u>Text</u>
1.	Introduction	<i>Lecture notes</i> Chapter 1 and 2 (<i>Mankiw et al.</i>)
2.	Micro and Macroeconomics	<i>Lecture notes</i> Chapters 5, 6, 9 & 10 (<i>Mankiw et al.</i>)
3.	Time Value of Money and Economic Equivalence	Chapters 3 and 4 (<i>Park et al.</i>)
4.	Analysis of Independent Projects / Mutually Exclusive Alternatives	Chapters 5 and 6
5.	Depreciation and Income Taxes	Chapters 8 and 9
6.	Developing After Tax Cash Flows (with and without borrowed funds)	Chapter 10
7.	Replacement Decisions	Chapter 11
8.	Inflation and Project Cash Flows	Chapter 14

The basic lecture notes for Course Topics #1 and #2 (without graphs) will be provided in Desire2Learn. These notes are usually posted after the lecture so attendance to the lecture is important. Any graphs and additional notes that students may wish to take down can be added to the notes from Desire2Learn.

Tutorials

The tutorials will be 50 minutes in duration and these tutorials will allow the student to work on problem sets and clarify various economic concepts. Quizzes will be held in the tutorials. The starting date of the tutorials will be announced in class.

Grade Determination and Final Examination Details:

Midterm Examination (Thursday Oct. 22 nd , 2015)	1	30%
Quizzes [highest 4 marks will be selected] Quiz dates will be announced during the semester.	5	20%
Final Examination	1	50%
Total		100%

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

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

A passing grade on any particular component of the course is not required for a student to pass the course as a whole.

Non-programmable calculators WILL NOT be allowed during the writing of tests or final examinations.

There will be a Registrar scheduled final examination, held in a classroom, lasting 2 hours.

Tests and exams WILL involve multiple choice questions.

Notes:

- All students must comply with the regulations published in the University Calendar concerning “Intellectual Honesty,” “Examinations,” etc.
- Students seeking reappraisal of a piece of graded term work (term paper, essay, etc.) should discuss their work with the Instructor *within fifteen days* of the work being returned to the class.
- It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Student Accessibility Services, please contact their office at 403-220-8237. Students who have not registered with the Student Accessibility Services are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.

- Students who are unable to write the midterm because of an illness, family emergency or religious observance will have the midterm weight shifted to the final examination. Documentation MUST be provided.
- Programmable (graphing) calculators, Blackberry's, laptops, tablets, cell phones and any other electronic device are not to be used in any exam.
- 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:

Stephan Guscott
Phone: 403-220-3911
E-mail suypaca@ucalgary.ca

Students' Union Faculty Representative (Arts)

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E-mail arts1@su.ucalgary.ca arts2@su.ucalgary.ca, arts3@su.ucalgary.ca, arts4@su.ucalgary.ca

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

www.ucalgary.ca/sue

Society of Undergraduates in Economics is a student run organization whose main purpose is to assist undergraduate economics students succeed both academically and socially at the University of Calgary. Services include access to the exam bank, career partnerships with the Career Centre through hosting industry nights and information sessions, recognizing achievements in teaching, and organizing social events for members. They invite you to join by contacting sue@ucalgary.ca.

Faculty of Arts Program Advising and Student Information Resources

- Have a question, but not sure where to start? The Arts Students' Centre is your information resource for everything in Arts! Drop in at SS102, call them at 403-220-3580 or email them at artsads@ucalgary.ca. You can also visit the Faculty of Arts website at <http://arts.ucalgary.ca/undergraduate> which has detailed information on common academic concerns, including program planning and advice.
- For registration (add/drop/swap), paying fees and assistance with your Student Centre, contact Enrolment Services at 403-210-ROCK [7625] or visit them in the MacKimmie Library Block.
- Online writing resources are available at <http://www.ucalgary.ca/ssc/resources/writing-support>

Safewalk/Campus Security: 403 220 5333
Emergency Assembly Point: ICT Food Court