

Economics/Engineering 209(L01) (Engineering Economics)

Instructor: Ron Schlenker
Phone: 220-4096

Lecture Locations: ENC70
Lecture Days/Time: L01 TuTh11:00-12:15

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Office Hours: Tu 12:30-13:15

Winter 2018

Course Description

This course provides a general introduction to micro- and macro-economics and the basic tools and methodology of engineering economic studies. Topics include basic economic concepts, investment decisions, theory of replacement, project evaluation with taxes and depreciation, social decision making and government projects. Examples are drawn from engineering projects.

Course Objectives/Learning Outcomes

A successful engineer requires a basic knowledge of economics, in addition to science and engineering. This course will introduce you to the concepts and methods utilized in engineering economics. The primary concept that you will learn is the time value of money. You will also learn problem solving methods and apply these to a variety of engineering decisions such as equipment replacement and selection among new investment alternatives.

Prerequisites/corequisites

Students must be in the Faculty of Engineering with second year standing or higher. If not registered in the Schulich School of Engineering, consent of the Department of Economics is needed. If required for APEGA, consent must be obtained by the Schulich Undergraduate Studies Office.

Required Textbook(s)

Park, Zuo et al., Contemporary Engineering Economics (Canadian Perspective), Addison-Wesley, 3rd Canadian Edition (University of Calgary edition)

Reserved Readings

None

Course Requirements/Assessments:

Topics and Textbook References:

1. Interest and the Value of Money over Time - Chapters 3 and 4
2. Project Evaluation - Chapters 5 and 6
3. Public Sector Projects - Chapter 13
4. Analysis of Uncertainty and Risk – Chapter 15
5. Depreciation and Taxation - Chapters 8, 9 and 10
6. Inflation - Chapter 14
7. Replacement Analysis – Chapter 11

8. Introductory Micro and Macroeconomics - Chapter 1, 2 and lecture notes

The basic lecture notes for Topic 8 (without graphs) will be provided in Desire2Learn (D2L – see below). It is expected that students will have a copy of these notes with them in lectures and lectures will proceed at a speed that is consistent with this expectation. Any graphs and additional notes that students may wish to take down can be added to the notes from D2L.

Midterm Examination 1 (covers Ch.3-6) 30% (February 15)

Midterm Examination 2 (covers Ch.8-15) 40% (March 29)

Final Examination (covers micro/macro) 30% (April 16-26)

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. The starting date of the tutorials will be announced in class.

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.

Grade Determination and Final Examination Details

Department of Economics Criteria for Letter Grades. Economics professors use the following criteria when assigning letter grades:

Grade	Grade Point Value	Description	Grade	Grade Point Value	Description
A+	4.00	Outstanding	C+	2.30	
A	4.00	Excellent-superior performance, showing-comprehensive understanding of subject matter	C	2.00	Satisfactory – basic understanding of the subject matter
A-	3.70		C-	1.70	Receipt of a grade point average of

						1.70 may not be sufficient for promotion or graduation. (See individual undergraduate faculty regulations.)
B+	3.30			D+	1.00	
B	3.00	Good – clearly above average performance with knowledge of subject matter generally complete.		D	1.00	Minimal pass – marginal performance; generally insufficient preparation for subsequent courses in the same subject.
B-	2.70			F	0	Fail – unsatisfactory performance or failure to meet course requirements
				I	0	Incomplete – unsatisfactory (effective January 2007)

Grading Scale

A+	98 – 100	B	75 - 79	C-	60 – 62
A	90 - 97	B-	70 – 74	D+	55 – 59
A-	85 - 89	C+	67 – 69	D	50 – 56
B+	80 -84	C	63 – 66	F	0 – 49

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.

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

There will be a Registrar scheduled final examination, held in a gymnasium, lasting 2 hours. Non-programmable calculators **WILL** be allowed during the writing of tests or final examinations. **The use of graphing calculators, cell phones, computers, tablets, or any device with an alphanumeric keyboard is not permitted.**

The midterm examinations will involve problem solving. The final exam **WILL** involve multiple choice questions.

Reappraisal of Grades

For reappraisal of graded term work, see Calendar I.2

<http://www.ucalgary.ca/pubs/calendar/current/i-2.html>

For reappraisal of final grade, see Calendar I.3

<http://www.ucalgary.ca/pubs/calendar/current/i-3.html>

A student who feels that a piece of graded term work (e.g., term paper, essay, test) has been unfairly graded, may have the work re-graded as follows. The student shall discuss the work with the instructor within 15 days of being notified about the mark or of the item's return to the class; no reappraisal of term work is permitted after the 15 days. If not satisfied, the student shall immediately take the matter to the Head of the department offering the course, who will arrange for a reassessment of the work within the next 15 days. The reappraisal of term work may cause the grade to be raised, lowered, or to

remain the same. If the student is not satisfied with the decision and wishes to appeal, the student shall address a letter of appeal to the Dean of the faculty offering the course within 15 days of the unfavourable decision. In the letter, the student must clearly and fully state the decision being appealed, the grounds for appeal, and the remedies being sought, along with any special circumstances that warrant an appeal of the reappraisal. The student should include as much written documentation as possible.

Plagiarism and Other Academic Misconduct

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. Consequently, plagiarism or cheating on any assignment is regarded as an extremely serious academic offense. Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Students should examine sections of the University Calendar that present a Statement of Intellectual Honesty and definitions and penalties associated with Plagiarism/Cheating/Other Academic Misconduct, <http://www.ucalgary.ca/pubs/calendar/current/k.html>

Academic Accommodation

Students seeking an accommodation based on disability or medical concerns should contact Student Accessibility Services; SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities Visit www.ucalgary.ca/access/.

Students who require an accommodation in relation to their coursework based on a protected ground other than disability should communicate this need in writing to their Instructor. The full policy on Student Accommodations is available at <http://www.ucalgary.ca/policies/files/policies/student-accommodation-policy.pdf>

Absence from an Exam

THERE WILL BE NO MAKEUP OR DEFERRED MIDTERM EXAMS under any circumstances, nor may any exam be written early. Students unable to write exams because of documented illness, family emergency, religious observance, or university-sanctioned event will have the weight shifted to another course component; otherwise a grade of zero will be assigned. If a student cannot write their final exam on the date assigned by the Registrar's Office, they need to apply for a deferred exam www.ucalgary.ca/registrar/exams/deferred_final. Under no circumstance will this be accommodated by the department.

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 Disability Resource Centre, please contact their office at 403-220-8237. Students who have not registered with the Disability Resource Centre 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 should be aware that no "make-up" midterms will be given. Any student who finds it necessary to miss the midterm must notify the instructor in advance and produce a valid medical certificate or other required documentation in order to have the weighting adjusted. Should a student miss midterm 1, the weight of midterm 1 will be shifted to midterm 2. Should a student miss midterm 2 or both midterms, the student will write a final examination that includes a problem solving section (along with the multiple choice section that will be written by all students). Note that deferred final examinations may contain short/long answer questions. Also, deferred final examinations do not have to cover the same material or have the same format as the regular final examination.
- **The use of cell phones for any purpose in class is prohibited. Computers may be used for note-taking purposes only.**
- 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.
- Please note that the following types of emails will receive no response: emails not addressed to anyone in particular; emails where the recipient's name is not spelled correctly; anonymous emails; emails in which the sender has not identified which course and section he/she is taking; and, emails involving questions that are specifically addressed on the course outline.

Important Dates

Please check: <http://www.ucalgary.ca/pubs/calendar/current/academic-schedule.html>

Faculty of Arts Students' Association (F.A.S.A.):

Economics Department Representative

Office: SS 803, E-mail: econrep@fasaucalgary.ca Web: www.fasaucalgary.ca

Society of Undergraduates in Economics

www.ucalgarysue.com

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>

Evacuation Assembly Point

In case of an emergency evacuation during class, students must gather at the designated assembly point nearest to the classroom. The list of assembly points is found at

www.ucalgary.ca/emergencyplan/assemblypoints

Please check this website and note the nearest assembly point for this course

Safewalk

The safewalk program provides volunteers to walk students safely to their destination anywhere on campus. This service is free and available 24 hrs/day, 365 days a year.

Call 403-220-5333