

Economics/Engineering 209 (Engineering Economics)

Instructor: L.Yuan
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Lecture Locations: Eng60
Lecture Days/Time: TuTh11:00-12:15

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Office Hours: Tu 12:30-13:15

Winter 2019

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.

Course Outline

Topics and Textbook References:

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

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

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. **Tutorials:**

Students are expected to attend the weekly tutorial section to which they have been assigned. During the tutorials, the TA will discuss pre-assigned questions and additional material relevant to the course that is not covered in lectures. The tutorials will be 50 minutes in duration. The starting date of the tutorials will be announced in class.

Grade Determination and Final Examination Details

Midterm Exam 1 (covers Ch.3 -5) (Feb. 14) 25%

Midterm Exam 2 (covers Ch.6-14) (March 14) 25%

Final Examination (cumulative) 50%

In addition to the exams, there will be un-graded assignments for each chapter. Department of Economics Criteria for Letter Grades. Economics professors use the following criteria when assigning letter grades:

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.

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 and final will involve problem solving. The final exam is cumulative.

As per the Writing Across the Curriculum Statement in the Calendar, writing and grading thereof will be a factor in the evaluation of student work.

Any student work which remains undistributed after the last day of classes will be available to students through the instructor's office during the instructor's office hours.

The final examination will be comprehensive, scheduled by the Registrar, held in a classroom, and last 2 hours. 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.

Reappraisal of Grades and Intellectual Honesty:

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>

Statement of Intellectual Dishonesty, see Calendar K.4

<http://www.ucalgary.ca/pubs/calendar/current/k-4.html>

Plagiarism and Other Academic Misconduct, see Calendar K.5

<http://www.ucalgary.ca/pubs/calendar/current/k-5.html>

Academic Accommodations:

The student accommodation policy can be found at: ucalgary.ca/access/accommodations/policy. Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities ucalgary.ca/policies/files/policies/student-accommodation-policy.

Students needing an Accommodation based on a Protected Ground other than disability should communicate this need, preferably in writing, to the course instructor.

Important Dates:

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

Student Organizations:

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

Economics Department Representative

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

Society of Undergraduates in Economics:

<https://www.ucalgarysue.com/>.

Society of Undergraduates in Economics is a student run organization whose main purpose is to assist undergraduate economics students to succeed both academically and socially at the University of Calgary. Services include access to the exam bank, career events such as Industry Night and information sessions, mentorship programs, and social events for members. They invite you to join by contacting SUE at societyofundergradsineconomics@gmail.com.

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 assembly point for this classroom is ICT Food Court.

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.**

Freedom of Information and Protection of Privacy (FOIP) Act:

Personal information is collected in accordance with FOIP. For more information, see <http://www.ucalgary.ca/legalservices/foip/foip-hia>.

Internet and Electronic Communication Device information:

The use of cell phones for any purpose in class is prohibited. Computers and tablets may be used for note-taking only.

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.
- 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.