

Economics 373 (L01) Game Theory and Strategic Thinking for the Social Sciences

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Lecture Location: SA129
Lecture Days/Time: MW 16:00 – 18:45

Office: SS 447
Office Hours: MW 12:00 – 14:00

SPRING 2018

Course Description:

An introduction to the principles of game theory utilizing a non-mathematical and intuitive approach. The principles of strategic thinking are illustrated by application and examples in economics and other social sciences.

Course Objectives:

The objective is to develop the ability of students to reason strategically and to understand how game theory can be used to explain social interaction.

Course Outline:

Chapter references in the following outline are to the textbook

1. Introduction to games and strategic thinking (Chapters 1, 2)
2. Sequential move games and backward induction (Chapter 3, 6)
3. Simultaneous move games and Nash equilibrium(Chapters 4, 5)
4. Mixed strategies (Chapter 7)
5. Uncertainty, asymmetric information and credibility (Chapter 8, 9)
6. Repeated games (Chapter 10)

Selected topics, time permitting:

1. Evolutionary games
2. Strategy and voting
3. Behavioral game theory

Prerequisites:

Econ 201 and 203

Required Textbook(s):

Games of Strategy by Dixit, Skeath & Reiley (4th ed, but any edition is fine)

Recommended Textbook(s):

While we will follow the above textbook, the following alternatives provide suitable coverage:

- *A guide to game theory* by F. Carmichael
- *An introduction to game theory* by M. Osborne

- *Strategies and games* by P.K. Dutta
- *Thinking strategically* by Dixit and Nalebuff (less a textbook, more an interesting read)

Books on Reserve:

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.

Grade Determination and Final Examination Details:

| | |
|--------------|------------|
| QUIZZES (4) | 30% |
| MIDTERM EXAM | 30% |
| FINAL EXAM | <u>40%</u> |
| | 100% |

There will be 4 quizzes at regularly spaced intervals in the course. Each quiz will be worth 10% of your overall grade. Only your top 3 will count towards the 30% quiz component (i.e. you get one mulligan!).

Grading Scale

| | | | | | |
|----|----------|----|---------|----|---------|
| A+ | 95 – 100 | B | 73 – 76 | C- | 60 – 62 |
| A | 85 – 94 | B- | 70 – 72 | D+ | 56 – 59 |
| A- | 80 – 84 | C+ | 67 – 69 | D | 50 – 55 |
| B+ | 77 – 79 | 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.

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 his 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.

Tests and exams may involve multiple choice questions. Non-programmable calculators will be allowed during the writing of tests or final examinations.

The exact date for the in-class midterm will be announced at least one week in advance.

THERE WILL BE NO MAKEUP OR DEFERRED QUIZZES/TESTS/EXAMS under any circumstances, nor may the quizzes/tests/exams be written early. Students unable to write the quizzes/tests/exams because of documented illness, family emergency, religious observance, or university-sanctioned event will have the weight shifted to the final examination; otherwise a grade of zero will be assigned.

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 the **Social Sciences 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.

BCS

2018-03-20