Department of Economics
Course Outline

UNIVERSITY OF
CALGARY

Course:	Economics 373 [Theory and Strategic Thinking for Social Sciences]	**Term:**	Summer 2008
Time:	TR 18:00-20:50	**Section:**	60
Instructor:	Armando Zavaleta	**Place:**	SS 109 (subject to change)
Office:	SS 443	**Telephone:**	220 4602
Office Hours:	T 14:50-17:50pm	**E-mail:**	azavalet@ucalgary.ca

Textbook(s):
[**Required**] Carmichael, Fiona. *A Guide to Game Theory*. Prentice Hall. 1st edition, 2005.

[**Recommended**] Osborne, Martin J. *An Introduction to Game Theory*. Oxford University Press. 1st edition, 2004.

Book(s) on Reserve:
Carmichael, Fiona. *A Guide to Game Theory*. Prentice Hall, 1st edition, 2005.
Dixit, Avinash and Skeath, Susan. *Games of Strategy*. Norton, 2nd edition, 2004
Osborne, Martin J. *An Introduction to Game Theory*. Oxford University Press. 1st edition, 2004.

Course Outline:

Game Theory is the analysis of situations in which payoffs to agents depend not only on their own behavior but also on the behavior of other agents. It involves the analysis of conflict, cooperation, and (tacit) communication. Game Theory has applications in several fields, such as economics, political science, psychology, sociology, law, biology and computer science. In this course, I will introduce the basic tools of game theoretic analysis and some of the many applications of Game Theory, primarily in economics and political science. Although Game Theory has emerged as a branch of mathematics, my emphasis will be on the conceptual analysis, keeping the level of mathematical technicalities to a minimum. However, Game Theory is a difficult subject that requires thinking in logical and mathematical terms.

The main textbook will be Carmichael's textbook *A Guide to Game Theory*. However, students who prefer a more mathematical approach and a deeper analysis of the topics covered in the course can use Osborne's *An Introduction to Game Theory* instead. I recommend to those students who want to review additional applications of the topics covered in class to read Dixit and Skeath's *Games of Strategy*.

Topics:
In the following references "C" refers to Carmichael and "O" refers to Osborne.

		Carmichael Chapters	Osborne Chapters
1.	Introduction to Games and Strategic Thinking	1, 2	1
2	The Prisoners' Dilemma and Nash Equilibrium, Theory and Examples	2, 3	2, 3
3.	Mixed Strategy Equilibrium	5, 6	4
4.	Extensive Games with Perfect Information and Subgame Perfect Equilibrium, Theory and Examples	4	5, 6
5.	Extensive Games with Imperfect Information	7	10
6	Asymmetric Information	7	10
7	Repeated Games: The Prisoners' Dilemma	8	14
8	Bargaining theory	9	16

I will provide lecture notes and I will also post the slides corresponding to each lecture. These notes and slides will be an important study guide for the course.

Grade Determination and Final Examination Details:

Student performance will be evaluated as follows:

Assignments	30%
Midterm Examination	30%
Final Examination	40%

There will be weekly assignments due at the beginning of the lecture. No late assignments will be accepted other than in cases of extreme personal emergency. The midterm exam is scheduled for the regular class session on Thursday July 24, 2008. *Deferred midterm exams will not be given.* Students who are unable to write the midterm because of illness or personal emergency will have the midterm weight shifted to the final. Appropriate documentation is required in all such cases.

The final examination will be scheduled by the Registrar, lasting 2 hours. A make-up or deferred final exam will not be given except in cases of illness or personal emergency. Appropriate documentation is required in all such cases. If for such a reason, a deferred final exam is allowed, it will not be given before the scheduled exam date.   …/3

The midterm and final exams will be open book, programmable-calculators are allowed. Exams will not involve multiple choice questions. Since Game Theory is a difficult subject, I encourage you to work on the assignments in groups.

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

A+	96 –100	B	76 – 80	C-	56 – 60
A	91 – 95	B-	71 – 75	D+	51 – 55
A-	86 – 90	C+	66 – 70	D	46 – 50
B+	81 – 85	C	61 – 65	F	<46

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 is necessary to more fairly represent student achievement.

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

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 220-8237. Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. In the Department of Economics, we recommend that all students enrolled in the Spring/Summer session, should discuss their needs with the instructor of the course no later than seven (7) days after the start of this course.

Students' Union Vice-President Academic:
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Society of Undergraduates in Economics (S.U.E.):
        www.ucalgary.ca/sue/
                        Safewalk / Campus Security: 220-5333

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2008-04-03