

Faculty of Science Course Syllabus
Department of Economics
ECON 3600
Strategic Behaviour
Fall 2018

Instructor: Yulia Kotlyarova yulia.kotlyarova@dal.ca 6220 University Ave, C32
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Lectures: Monday and Wednesday 14:35 – 15:55 LSC-PSYCHOLOGY P5260

Office hours: Friday 10:15 – 12:00 or by appointment

Teaching assistant: Weiyi Li

TA's office hours: TBA

Course Description

In this course we analyze different types of competitive and cooperative behaviour of economic agents. Many economic questions (such as price competition, tax policy, research and development decisions, bargaining, or a firm's entry into a new market) can be interpreted as games, in which each player's action affects payoffs of other players. The lectures focus on noncooperative static and dynamic games. The ideas are illustrated using examples from microeconomics and labour economics. Problem-based learning is an important part of this course.

Course Prerequisites (grade C or higher)

ECON 2200.03 or ECON 2210.03 or ECON 2220.03, and MATH 1000.03 or equivalent

Course Objectives/Learning Outcomes

The students will learn how to recognize, describe and analyze various strategic interactions in economics. They will apply such concepts as dominance solutions, Nash equilibrium, randomization, subgame perfect equilibrium, repeated game strategies, and signaling.

Course Materials

Required textbook:

"Games of Strategy" by A. Dixit, S. Skeath, and D. Reiley, 4th edition, 2015, W.W. Norton (3rd edition is on reserve at Killam library).

Solutions to chapter exercises are available at

<http://cdn.wwwnorton.com/college/econ/games-of-strategy4e/GoS4-Solved-Exercises.zip>

Additional reading materials will be distributed in class or posted on Brightspace.

Other useful textbooks:

“An Introduction to Game Theory” by M. Osborne (Oxford University Press, 2004): more advanced mathematical treatment of game theory (on reserve, Killam library)

“A Course in Microeconomic Theory” by D. Kreps (Princeton University Press, 1990): graduate text (on reserve)

“Game Theory with Economic Applications” by S. Bierman and L. Fernandez (Addison Wesley, 1998): good examples/applications

Course Assessment

Component	Weight (% of final grade)	Date
<i>Midterm</i>	30%	24 October, 2018 (in class)
<i>Final exam</i>	50%	scheduled by Registrar
<i>4 assignments</i>	20%	to be determined

Conversion of numerical grades to Final Letter Grades follows the Dalhousie Common Grade Scale

A+ (90-100)	B+ (77-79)	C+ (65-69)	D	(50-54)
A (85-89)	B (73-76)	C (60-64)	F	(<50)
A- (80-84)	B- (70-72)	C- (55-59)		

Course Policies

There will be no make-up midterm exam. If students miss the midterm for health reasons, they must inform the instructor by email on the day of the exam (or earlier). Their final exam will count for 80% of the final grade.

The students are not allowed to collaborate on the assignments.

The full text of Dalhousie’s *Policy on Intellectual Honesty and Faculty Discipline Procedures* is available here:

http://www.dal.ca/dept/university_secretariat/academic-integrity/academic-policies.html

If a student cannot submit an assignment on time for a valid reason, the student must contact the instructor prior to the assignment deadline to discuss alternative arrangements.

Course Content

1. Introduction: Ch. 1, 2
2. Sequential-move games, subgame perfect equilibrium: Ch. 3
3. Simultaneous-move games, Nash equilibrium: Ch. 4, 5
4. Combining sequential and simultaneous moves: Ch. 6
5. Oligopoly (Osborne Ch. 3, 6)
6. Mixed strategies: Ch. 7
7. Repeated games: Ch. 10
8. Bargaining: Ch. 17
9. Games with incomplete/imperfect information: Ch. 8 and 13, Osborne Ch. 10
10. Auctions: Ch. 16
11. Bounded rationality (based on papers by D. Kahneman and A. Tversky)

Please read the University Policies and Statements on the course website (Brightspace, folder "Course Syllabus").