

**Faculty of Science Course Syllabus
Department of Economics
ECON 6609
Advanced Micro Theory**

Instructor: Professor Norovsambuu Tumennasan (Norov for short)

E-mail: norov@dal.ca

Office Address: 6206 University Ave. C11
Office hours: Wednesdays 2.00-15.30

Lectures MW 11:35- 12:55 A1 Maxwell House

IMPORTANT DATES

Feb 12
TBD

MIDTERM EXAM
Final

Prerequisites: ECON 5509 or instructor's permission

COURSE DESCRIPTION:

This course in microeconomic theory is required in the general Ph.D. program. The students learn classic models of decision making under uncertainty and market failure.

COURSE SUBJECT AREAS:

1. Preliminaries
 - 1.1 Decision Making under Uncertainty
 - 1.2 Non-Cooperative Game Theory: representations of games (extensive form and normal form), solution concepts (dominance and Nash Equilibrium), static

games of complete and incomplete information, dynamic games, subgame perfection, dynamic games of incomplete information

2. Market Failures

2.1 Externalities and Public Goods: bilateral externalities, presence of public goods, multilateral externalities, externalities with incomplete information

2.2 Market power or Imperfect Competition: Monopoly, static oligopolies, repeated oligopolistic competition, entry, precommitment decisions, the competitive limit

2.3 Asymmetric Information: adverse selection, signaling, screening, moral hazard

- We start introducing uncertainty into the theory of individual decision making. Here we give the justification for the use of expected utility which is the predominantly used form of utility function in all areas of economics. We define the risk and how risk is measured for given agents. Lastly, we consider whether lotteries can be ranked in the same way for risk averse individuals. This part of the class has many applications in the economics of finance or accounting.
- In the section on game theory we study how individuals make decisions when the decisions of the agents affect each other's well-beings. We will consider many different strategic situations and introduce proper concepts used in these situations.
- One of the main assumptions of classic general equilibrium model is the all consumptions or productions are private. In reality, one's consumption or production decision affects others' well-beings. The usual examples are externality goods or public goods.
- Another assumption of general equilibrium theory is that all economic agents are price-takers. However, this is not the case outside of the perfectly competitive markets. In other words, we study market situations in which there are only one or a few producers. This part uses the concepts from game theory and we will analyze whether market achieves efficiency.
- Another assumption is that all the agents have the same information regarding the goods they purchase or sell. What happens if some have this information but not others. Such cases occur in lemon's market, insurance market and labor market.

Learning Objectives:

Students should be able to apply formal and disciplined arguments when analyzing economic problems. In addition, students should be able to write a model appropriate for the situations in which they are interested.

Examination:

Written examination of 2 hour duration

The exam difficulty will be about the same as the homework assignments.

Homework:

There will be several non-graded assignments. You are highly encouraged to work on these assignments.

Literature:

- Mas-Colell, A., Whinston, M., & Green, J., 1995, *Microeconomic Theory*, Oxford University Press (MWG)

Course Assessment

Component	Weight (% of final grade)	Date
<i>Midterm Exam</i>	40%	
<i>Final exam</i>	60%	

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

A+ (90-100)	A (85-89)	A- (80-84)	B+ (77-79)
B (73-76)	B- (70-72)	F (<70)	

Course Policies

If a student misses the midterm for a valid medical reason, all the weight of your midterm will be shifted to the final. If a student misses the final exam for a valid medical reason, you must notify the instructor immediately, provide appropriate medical documentation, and make arrangements to write a comprehensive exam as soon as health permits.

University Policies and Statements

Recognition of Mi'kmaq Territory

Dalhousie University would like to acknowledge that the University is on Traditional Mi'kmaq Territory. The Elders in Residence program provides students with access to First Nations elders for guidance, counsel, and support. Visit or e-mail the Indigenous Student Centre at 1321 Edward St or elders@dal.ca. Additional information regarding the Indigenous Student Centre can be found at: https://www.dal.ca/campus_life/communities/indigenous.html

Internationalization

At Dalhousie, 'thinking and acting globally' enhances the quality and impact of education, supporting learning that is "interdisciplinary, cross-cultural, global in reach, and orientated toward solving problems that extend across national borders." Additional internationalization information can be found at: <https://www.dal.ca/about-dal/internationalization.html>

Academic Integrity

At Dalhousie University, we are guided in all our work by the values of academic integrity: honesty, trust, fairness, responsibility, and respect. As a student, you are required to demonstrate these values in all the work you do. The University provides policies and procedures that every member of the university community is required to follow to ensure academic integrity. Additional academic integrity information can be found at: https://www.dal.ca/dept/university_secretariat/academic-integrity.html

Accessibility

The Student Accessibility Centre is Dalhousie's centre of expertise for matters related to student accessibility and accommodation. If there are aspects of the design, instruction, and/or experiences within this course (online or in-person) that result in barriers to your inclusion, please contact the Student Accessibility Centre (https://www.dal.ca/campus_life/academic-support/accessibility.html) for all courses offered by Dalhousie with the exception of Truro. For courses offered by the Faculty of Agriculture, please contact the Student Success Centre in Truro (<https://www.dal.ca/about-dal/agricultural-campus/student-success-centre.html>)

Conduct in the Classroom – Culture of Respect

Substantial and constructive dialogue on challenging issues is an important part of academic inquiry and exchange. It requires willingness to listen and tolerance of opposing points of view. Consideration of individual differences and alternative viewpoints is required of all class members, towards each other, towards instructors, and towards guest speakers. While expressions of differing perspectives are welcome and encouraged, the words and language used should remain within acceptable bounds of civility and respect.

Diversity and Inclusion – Culture of Respect

Every person at Dalhousie has a right to be respected and safe. We believe inclusiveness is fundamental to education. We stand for equality. Dalhousie is strengthened in our diversity. We are a respectful and inclusive community. We are committed to being a place where everyone feels welcome and supported, which is why our Strategic Direction prioritizes fostering a culture of diversity and inclusiveness (Strategic Priority 5.2). Additional diversity and inclusion information can be found at: <http://www.dal.ca/cultureofrespect.html>

Student Code of Conduct

Everyone at Dalhousie is expected to treat others with dignity and respect. The Code of Student Conduct allows Dalhousie to take disciplinary action if students don't follow this community expectation. When appropriate, violations of the code can be resolved in a reasonable and informal manner - perhaps through a restorative justice process. If an informal resolution can't be reached, or would be inappropriate, procedures exist for formal dispute resolution. The full Code of Student Conduct can be found at:

https://www.dal.ca/dept/university_secretariat/policies/student-life/code-of-student-conduct.html

Fair Dealing Policy

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Originality Checking Software

The course instructor may use Dalhousie's approved originality checking software and Google to check the originality of any work submitted for credit, in accordance with the Student Submission of Assignments and Use of Originality Checking Software Policy. Students are free, without penalty of grade, to choose an alternative method of attesting to the authenticity of their work and must inform the instructor no later than the last day to add/drop classes of their intent to choose an alternate method. Additional information regarding Originality Checking Software can be found at: <https://www.dal.ca/about/leadership-governance/academic-integrity/faculty-resources/ouriginal-plagiarism-detection.html>

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