

**Faculty of Science Course Syllabus
Department of Economics
ECON 4427
Market Design
Fall 2020**

Instructor:	Professor Norovsambuu Tumennasan (Norov for short)
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Office hours:	By appointment
Lectures	TH 14.35-15.55

IMPORTANT DATES

**TBA
TBA**

**MIDTERM EXAM
Final EXAM**

Course Description

The course studies how the organization of centrally administered markets affects their performance. The students learn several mechanisms that are currently used and evaluate their properties. The course has a strong emphasis on applications, e.g., the allocation of students to public schools, interns to hospitals or organ donors to recipients.

Course Prerequisites

ECON 3700 or Math 2001 or by instructor's permission.

Maturity in mathematics is expected. This course has a minimum grade requirement of C for their prerequisite courses.

Course Objectives/Learning Outcomes

The students should be able to

- Identify the desirable properties (e.g., stability, efficiency, and strategy proofness) that the allocation mechanisms in a given market should satisfy
- Evaluate the importance of incentive issues in various markets
- Apply and use the mechanisms such as deferred acceptance, top trading cycles, serial dictatorship, and probabilistic serial dictatorship in appropriate settings
- Analyze and assess whether a given mechanism in a given market satisfies one or more desirable properties

Course Content

- Marriage Market --- One-to-one matching
- College Admissions Model --- Many-to-one Matching
- Housing Market
- School Choice Problem
- Kidney Exchange
- Dynamic matching markets
- Matching with Contracts

Course Materials

- Two Sided Matching by A.E. Roth & M. Sotomayor, Econometric Society Monographs, published by Cambridge University Press, 1990
- Lecture Notes supplemented by research articles. Please check the course website frequently for new announcements.

Course Assessment

Component	Weight (% of final grade)	Date
<i>Midterm</i>	<i>30%</i>	<i>TBA</i>
<i>Final exam</i>	<i>50%</i>	<i>(Scheduled by Registrar)</i>
<i>Assignments</i>	<i>20%</i>	<i>TBA</i>

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)	

There will be four homework problem sets, and each of these is worth 5% of your grade. Assignments must be done individually and handed in before or on the due date.

Course Policies

Policy on Missed Materials: Assignments will NOT be accepted after the due date, unless there is a valid reason for the delay. If a student miss 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.