

Econ 721: Microeconomic Theory I

Fall 2022

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COURSE DESCRIPTION

This course covers basic graduate-level microeconomic theory. It includes uncertainty, Walrasian equilibrium, Arrow-Debreu equilibrium, Radner equilibrium, competitive market under adverse selection, contract theory.

PREREQUISITES

Students are expected to be familiar with linear algebra, optimization technique, and basic real analysis.

CLASS FORMAT

This course is delivered in person. There will be in-person lectures every Tuesday and Thursday from 2 pm to 3:30 pm in UH 112. Lectures will not be recorded, so your attendance is essential.

COURSE MATERIALS AND TEXTS

The key reference/textbook is

"Microeconomic Theory," Andreu Mas-Colell, Michael D. Whinston, and Jerry R. Green. Oxford University Press, 1995 (henceforth, MWG)

References are

- "Advanced Microeconomic Theory," Geoffrey A. Jehle and Philip J. Reny, 3rd edition 2010, Addison Wesley
- "Game Theory," Drew Fudenberg and Jean Tirole, 1991, MIT Press (henceforth FT)

AVENUE TO LEARN

Students should be aware that, when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

COURSE EVALUATION

The test for the preparatory math will receive a weight of 10%. There will be three assignments. The weight for each assignment is 5%. The weight for each term test is 15%. The weight for the final exam is 45%. **Two in-class term tests** are scheduled as follows:

Test 1: Tuesday, October 4th (UH112)

Test 2: Tuesday, November 15th (UH112)

Students should refer to the Statement on Academic Ethics and the Senate Resolutions on Academic Dishonesty. A student who does not hand in his/her assignment within a deadline will not receive any marks for it. A student who misses the mid term test without a medical excuse will receive a grade of zero for the test. If a student misses the mid term test with a medical excuse, the weight of that test will be moved forward onto the final exam.

PROBLEM SETS

Practice questions will be posted on a course website or announced in class. They are essential to prepare for the term test and final exam.

COURSE POLICIES

Grades

Grades will be based on the following McMaster University grading scale:

MARK	GRADE
90-100	A+
85-90	A
80-84	A-
77-79	B+
73-76	B
70-72	B-

UNIVERSITY POLICIES

Academic Integrity Statement

You are expected to exhibit honesty and use ethical behavior in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity.

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behavior can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: “Grade of F assigned for academic dishonesty”), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the [Academic Integrity Policy](#).

The following illustrates only three forms of academic dishonesty:

1. Plagiarism, e.g. the submission of work that is not one’s own or for which credit has been obtained.
2. Improper collaboration in group work.
3. Copying or using unauthorized aids in tests and examinations.

Academic Accommodation of Students with Disabilities

Students who require academic accommodation must contact Student Accessibility Services (SAS) to make arrangements. Academic accommodations must be arranged before classes or academic work begins, and for each term of study. Student Accessibility Services can be contacted by phone 905-525-9140 ext. 28652 or e-mail sas@mcmaster.ca. For further information, consult McMaster University’s Policy for [Academic Accommodation of Students with Disabilities](#).

Academic Accommodation for Religious, Indigenous and Spiritual Observances

Students who require academic accommodation due to an Observance must submit a RISO form to their Faculty office, electronically or in person, normally within ten working days from the beginning of each term in which they are anticipating a need for Accommodation. For further

information, consult McMaster University's [Policy on Academic Accommodation for Religious, Indigenous and Spiritual Observances](#).

Faculty of Social Sciences E-mail Communication Policy

Effective September 1, 2010, it is the policy of the Faculty of Social Sciences that all e-mail communication sent from students to instructors (including TAs), and from students to staff, must originate from the student's own McMaster University e-mail account. This policy protects confidentiality and confirms the identity of the student. It is the student's responsibility to ensure that communication is sent to the university from a McMaster account. If an instructor becomes aware that a communication has come from an alternate address, the instructor may not reply at his or her discretion.

Course Modification

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check his/her McMaster email and course websites weekly during the term and to note any changes.

COURSE SCHEDULE

- Choice Uncertainty (MWG chapter 6)
- General Equilibrium and Welfare (MWG chapters 15, 16)
- Arrow-Debreu Equilibrium (MWG 19.A, 19.B, 19.C, 19.D)
- Radner Equilibrium and related topics (MWG 19.E, 19.F, 19.G, 19.H)
- Competitive Market under Adverse Selection (MWG 13.A, 13.B, 13.D)
- Contract Theory (MWG 14.A, 14.B, 14.C, 14.D)
- Optimal mechanism design with a single agent (FT 7.3) - if time permitted