

Econ 310: Microeconomic Theory II

(M 1:00 p.m., W 11:30 a.m., Room: Miller 105), Fall 2011.

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Office Hours:
Tuesday: 3:00 - 4:00 p.m.
Wednesday: 10:00 - 11:00 a.m.

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Course web-page: Can be found at <https://moodle.queensu.ca/>

You should check the site regularly for new material and announcements.

Objective:

This course will study the actions of individual decision-makers in various contexts and then focus on how these individual actions coalesce to determine the working of a market economy. The emphasis of the course will be on mathematical rigor in the examination of the basic concepts in microeconomics. We will also attempt to demonstrate the usefulness of the basic techniques by applying them in diverse economic problems.

Prerequisites:

We plan to re-examine many of the topics in Microeconomic Theory I (**ECON 212**); hence, that is a prerequisite (with a minimum grade of C) for this course. **Calculus** will be used regularly; therefore, an introductory course in calculus (MATH 126 or MATH 121 or MATH 122 or MATH 126 or MATH 123 plus MATH 124) is also a prerequisite. I would strongly urge you to review the techniques (especially, differentiation and optimization) that you learnt in that course. **ECON 255** (Introduction to Mathematical Economics) is a third prerequisite for this course.

Textbooks:

The recommended textbook for this course is *Microeconomic Analysis* by Hal R. Varian (third edition; W.W. Norton & Company). This textbook is slightly advanced for the course and we will not be covering all the sections in the book.

You will be responsible for only the material covered in class and in the assignments.

Useful reference books for the course would consist of any textbook on mathematical economics (for example, *Fundamental Methods of Mathematical Economics* by Alpha C. Chiang), and other advanced microeconomics textbooks (for example, *Advanced Microeconomic Theory* by Geoffrey A. Jehle and Philip J. Reny).

Student Evaluation:

A student's final grade in the course will depend on his/her performance on problem sets, a mid-term and a final examination. The weighting of grades will be:

Problem sets: 20% Mid-term examination: 30% Final examination: 50%

Working independently on the problem sets is strongly recommended as these are meant to help further your personal understanding of the material and also prepare you for the exams.

The mid-term exam will be held in class on Wednesday, October 26.

Course Outline (subject to modification as we go along) **:

1. A quick review of some *basic mathematical concepts* including concave functions, convex sets, differentiation and optimization (constrained and unconstrained). [Chapters 26-27]
2. *Consumer choice*:
Preferences and utility functions, utility maximization and properties of consumer demand, expenditure minimization, uncertainty. [Chapters 7-11]
3. *Production theory*:
Technology, profit maximization, cost and supply functions. [Chapters 1-5, 13]
4. *Monopoly*:
Production and pricing decisions, price discrimination and welfare issues. [Chapter 14]
5. *General equilibrium* [Chapter 17-18]
6. *Game Theory*, with application to oligopoly theory. [Chapters 15-16]
7. *Moral hazard and adverse selection*:
Design of employment contracts, signaling, screening. [Chapter 25]

**As mentioned earlier, we will not be covering all the material in the above-mentioned chapters, and you will only be responsible for the material covered in class and in the assignments.

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Students are responsible for familiarizing themselves with the regulations concerning academic integrity and for ensuring that their assignments conform to the principles of academic integrity. Information on academic integrity is available in the Arts and Science Calendar (see [Academic Regulation 1](#)), on the Arts and Science website and from the instructor of this course.

Departures from academic integrity include plagiarism, use of unauthorized materials, facilitation, forgery and falsification, and are antithetical to the development of an academic community at Queen's. Given the seriousness of these matters, actions which contravene the regulation on academic integrity carry sanctions that can range from a warning or the loss of grades on an assignment to the failure of a course to a requirement to withdraw from the university.

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