



Department of Economics

ECON 410: Advanced Microeconomic Theory

2024, Semester 2

Course description

This paper uses mathematical tools for advanced analysis of microeconomic models of consumer choice, general equilibrium, social choice and welfare, game theory and other selected topics.

Prerequisites. ECON377; or (ECON270 and ECON371); or consent of the instructor.

Lectures. Three hours per week: Monday 10:00–11:50, Wednesday 10:00–10:50. It is expected that all class meetings will take place in OBS608 unless otherwise noted.

Learning aims and objectives

Upon successful completion of ECON410, a student is able to

1. demonstrate a deep understanding of the core areas of advanced microeconomics.
2. apply appropriate techniques for solving theoretical problems in advanced microeconomics and answer questions relating to the behaviour of economic agents.
3. explain the relevant techniques and the answers they produce using written English.

Course staff

Prof. Ronald Peeters

(course coordinator and lecturer)

601 Otago Business School

e-mail: ronald.peeters@otago.ac.nz

Office hours (weeks 4–13): drop in at your convenience if office door is open

Dr. Peter Gibbard

(lecturer)

525 Otago Business School

e-mail: peter.gibbard@otago.ac.nz

Office hours (weeks 1–3): tba

Janet Bryant

(reception)

601a Otago Business School

Office hours: 11:00–12:00 and 14:00–15:00 during workdays

Notices & Blackboard

The Department of Economics is housed on the 6th Floor of the Otago Business School.

Administrative notices, lecture slides and assignments will be posted on Blackboard. Blackboard allows us to e-mail the whole class. As such, e-mails will be sent to your student e-mail address, so it is important that you check your student e-mail regularly. If you have any difficulties using Blackboard, contact the ITS Library Helpdesk on 479 8888 or e-mail helpdesk@otago.ac.nz.

Workload

You should plan to devote 18 hours per week to this course. This is based on the University's 'rule of thumb' for a 20 point postgraduate semester course. Three of these hours are spent in lectures each week; leaving 15 hours per week for your own reading, study and revision.

Assessment

Assessment will consist of four graded problem sets (10% each), four quizzes (7.5% each), and one test (30%). There will be no final examination.

Topics list

A tentative list of topics to be covered is given below. Actual topics covered may vary.

1. Consumer Theory (3 weeks)
 - Preferences and Utility
 - Properties of Consumer Demand
 - Revealed Preference
 - Uncertainty
2. Welfare, General Equilibrium and Social Choice (3 weeks)
 - Individual Welfare
 - Exchange Economies
 - Efficiency
 - Preference Aggregation
 - Justice
3. Game Theory (4 weeks)
 - Strategic Form Games
 - Extensive Form Games
 - Evolutionary Game Theory
4. Information Economics, Auctions and Mechanism Design (3 weeks)
 - Adverse Selection
 - Moral Hazard and the Principal-Agent Problem
 - Auction Theory
 - Mechanism Design

Textbooks

The lectures will not follow any single textbook closely, but a list of texts that you may find useful is provided below. Other readings will be made available in class and via Blackboard as they are assigned.

The following books, which are available on close reserve at the library, are recommended.

1. Cornes, R., 1992, *Duality and Modern Economics*, Cambridge University Press
2. Gravelle, H. & R. Rees, 2004, *Microeconomics* 3rd ed., Prentice Hall
3. Harrington, J., 2015, *Games, Strategies and Decision Making*, 2nd ed., Palgrave MacMillan
4. Jehle, G. A. & P. J. Reny, 2011, *Advanced Microeconomic Theory*, 3rd ed., Addison-Wesley
5. Kreps, D. M., 1988, *Notes on the Theory of Choice*, 1st ed., Roudledge
6. Kreps, D. M., 1990, *A Course in Microeconomic Theory*, Princeton University Press
7. Mas-Colell, A., M. D. Whinston & J. R. Green, 1995, *Microeconomic Theory*, Oxford University Press
8. Nechbya, T. J. , 2011, *Microeconomics: An Intuitive Approach with Calculus*
9. Silberberg, E. & W. Suen, 2001, *The Structure of Economics: A Mathematical Analysis*, 3rd ed., McGraw-Hill
10. Varian, H. R, 1992, *Microeconomic Analysis*, 3rd ed., Norton

A note on dishonest practice

Any student found responsible for dishonest practice (for example, copying, the use of unauthorised material in tests, etc.) in relation to any piece of work submitted for assessment shall be subject to the University's dishonest practice regulations and may result in various penalties, including forfeiture of marks for the piece of work submitted, a zero grade for the paper, or, in extreme cases, exclusion from the University.