



## DEPARTMENT OF ECONOMICS

### ECON410: Advanced Microeconomic Theory (20 Points)

**Semester 2 2022**

#### 1. COURSE DESCRIPTION

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

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

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

#### 2. LEARNING AIMS AND OBJECTIVES

Upon successful completion of ECON410, a student should be 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.

### 3. COURSE STAFF

<b>Course Coordinator and Lecturer</b>	Ass. Prof. Trent Smith 617 Otago Business School e-mail: <a href="mailto:trent.smith@otago.ac.nz">trent.smith@otago.ac.nz</a> Office hours (weeks 6–13): drop in anytime I'm in, or e-mail to set an appointment
<b>Lecturer</b>	Dr Peter Gibbard 525 Otago Business School e-mail: <a href="mailto:peter.gibbard@otago.ac.nz">peter.gibbard@otago.ac.nz</a> Office hours (weeks 1–5): Wednesday 4-5, Thursday 12-1 or drop in or email to set up an appointment
<b>Receptionist</b>	Donna Cumberbeach 601 Otago Business School Office hours: 9:00-3:30

If you are missing copies of handouts or other course materials, please see Donna Cumberbeach at reception (OBS 601) or download these from Blackboard.

### 4. NOTICES & BLACKBOARD

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

Administrative notices and assignments will be posted on Blackboard: <http://blackboard.otago.ac.nz> (enter your username & password). Slides will also be posted on Blackboard when available. 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](mailto:helpdesk@otago.ac.nz).

### 5. 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 and study and revision.

### 6. ASSESSMENT

- Attendance and participation in lectures is expected of all students. If you are unable to attend a lecture, please let the lecturer know (by e-mail) in advance. 5% of the course grade will be based on participation in lecture.
- There will be five problem sets to be handed in. One or more problems from each set, which will be chosen randomly, will be graded. Each graded problem set will count 5% towards the course grade, giving a 25% overall weight to internal assessment. Students are allowed and encouraged to work on problem sets together but must write up and turn in their own copy to be graded

- Two mid-semester tests will carry weights of 30% and 40%, respectively.
- Plussage applies in the following manner: a problem set will count only if you do worse on the average score from your mid-semester tests, provided that the problem set is handed in. If you have not handed in a problem set, the zero you scored will always count!

## 7. TOPICS LIST

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

### (1) Consumer Theory

- Preferences and Utility Functions
- Properties of Consumer Demand
- Revealed Preference
- Uncertainty
- Individual Welfare Measures

### (2) Partial Equilibrium and Welfare

- Markets in Perfect Competition
- Imperfect Competition: Monopoly
- Imperfect Competition: Oligopoly

### (3) Game Theory

- Strategic Form Games
- Extensive Form Games

### (4) Information Economics

- Adverse Selection
- Moral Hazard and the Principal-Agent Problem
- Selected Topics

### (5) Other Topics (if time allows)

- Producer Theory
- Social Choice and Welfare
- General Equilibrium
- Auction Theory

## 8. TEXTBOOKS

The lectures will most closely follow *Advanced Microeconomic Theory* by Jehle and Reny (2011), with additional readings and background material from *Advanced Microeconomic Theory* by Murat Genç (2016). 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) Jehle, G. A. & P. J. Reny, 2011, *Advanced Microeconomic Theory*, 3rd ed., Addison-Wesley
- (4) Mas-Colell, A., M. D. Whinston & J. R. Green, 1995, *Microeconomic Theory*, Oxford University Press
- (5) Nechbya, T. J. , 2011, *Microeconomics: An Intuitive Approach with Calculus*
- (6) Silberberg, E. & W. Suen, 2001, *The Structure of Economics: A Mathematical Analysis*, 3rd ed., McGraw-Hill
- (7) Varian, H. R, 1992, *Microeconomic Analysis*, 3rd ed., Norton

## 9. 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.