



**DIVISION OF ECONOMIC AND FINANCIAL STUDIES**

**DEPARTMENT OF ECONOMICS**

**ECON200 MICROECONOMIC ANALYSIS  
UNIT OUTLINE  
2003**

**Michael Olive  
Lecturer in charge**

# **ECON200 MICROECONOMIC ANALYSIS**

## **1. AIMS AND STRUCTURE OF THE COURSE**

The course ECON200 Microeconomic Analysis is an intermediate-level course in theoretical and applied microeconomics. It builds on the foundations laid in the 100-level economics courses, and may in turn be seen as providing the insights and tools necessary for the study of more specialised or more applied areas in economics, accounting, finance and marketing at 200- and 300-level. The course places strong emphasis on developing analytical and theoretical skills as a means of encouraging rigorous and logical thinking about real-world economic questions.

The course develops a framework for microeconomic theory and analysis from the standpoint of the decision-making functions of individual and collective economic units (consumers, households, firms and society as a whole).

A summary of the course content is as follows:

1. Introduction (1 lecture)
2. Consumer choice and the theory of demand (11 lectures)
3. Production and cost theory (6 lectures)
4. Theory of the firm (2 lectures)
5. Imperfect information (6 lectures)
6. Perfect and imperfect competition (7 lectures)
7. General equilibrium and welfare economics (4 lectures)

A more detailed course outline and list of required and suggested reading is given below.

## **2. ENQUIRIES**

The Lecturer-in-charge

**Dr Michael Olive: C5C 383, ph. 9850 9948, email. [molive@efs.mq.edu.au](mailto:molive@efs.mq.edu.au).**

Lecturer

**Professor David Throsby: C5C 313, ph. 9850 8474, email. [david.throsby@mq.edu.au](mailto:david.throsby@mq.edu.au).**

Tutor-in-charge

**Dr Arusha Cooray: C5C 376, ph. 9850 6476, email. [acooray@efs.mq.edu.au](mailto:acooray@efs.mq.edu.au).**

Michael Olive and David Throsby will present approximately half the lectures each. All enquiries concerning the administration of the unit (including tutorial arrangements) should be addressed to Arusha Cooray. Enquiries about course content should be directed in the first instance to your own tutor. Clarification of specific points in lectures should be directed to the appropriate lecturer. You will be notified of the consultation times for the lecturers and tutors. If you cannot contact your tutor or lecturer in person you should email them.

### 3. LECTURES

There are three hours of lectures each week at the following times and places:

#### Day Lectures

Tuesday	11.00	E7B Mason
Wednesday	13.00 - 15.00	X5BT1

#### Evening Lectures

Tuesday	18.00 - 20.00	E7B Mason
Wednesday	18.00	W5A Price

Day and evening lectures are given in parallel, so students may attend day and/or evening lectures without prior notification and regardless of whether they are enrolled full-time or part-time. There will be a 10 minute break in the middle of the double lectures on Wednesday (day) and Tuesday (evening) to enable students wishing to attend only one of these two lectures to enter or leave the theatre.

Please consult the Course Diary below for precise details of the currently scheduled lecture dates for the whole course. During the semester, staffing arrangements may require the cancellation of some lectures. Any changes will be announced as far as possible in advance.

### 4. TUTORIAL PROGRAMME

There are no tutorials during the first week of the semester. During the first week you should check tutorial lists in the locked notice cases outside the EFS Resource and Information Centre (ERIC) Level 2, Building C5C, to find the time and room of the tutorial group to which you have been allocated.

The tutorial to which you have been allocated is our most efficient method of contacting you if we need to. During the first two weeks of semester changes to your allocated tutorials must be processed through the online enrolment system. After the first two weeks changes must have a substantive reason and must be submitted in writing and approved by Arusha Cooray. If unforeseen circumstances cause you to miss a tutorial you may attend another tutorial on a once-off basis without notification.

There are eight tutorials in total. Therefore, they are not held every week. The questions for the tutorials include discussion questions linked to particular articles, problems from the Eaton, Eaton and Allen text and review questions from the Devlin and Gallini Study Guide that accompanies the text. The details and requirements for tutorials are given in a separate ECON200 Tutorial Program document.

## 5. ASSESSMENT

The components of assessment in this course are as follows:

	%
Tutorial Attendance	10
Mid-semester Test 1	15
Mid-semester Test 2	15
Exam: multiple choice	20
Exam: essays/problems	40
Total	100

A further requirement is that students are expected to perform satisfactorily in **both** halves of the assessment (within-course assessment and final examination). Although no exact standards can be specified, students who fall much below half-marks in either the total within-course assessment mark or the total examination mark will have difficulty passing the course.

**Tutorial** marks will be awarded on the basis of participation and attendance. A roll will be kept and students that attend fewer than six tutorials will receive a mark of zero for this component of the course assessment. Students will also be asked to answer and discuss the tutorial questions. Marks will only be deducted for a lack of preparation, not for incorrect answers. Full marks in this component will go to students who have attempted the tutorial questions and demonstrated this in class and satisfied the attendance requirement.

The two **mid-semester tests** are multiple choice tests will be taken in place of the regular Tuesday lectures on April 1 and May 20. The test will be held in the 11.00 lecture for day students and 18.00 lecture for evening students, with a lecture to follow.

The material covered in the two mid-semester tests will be

Test 1	Lectures 1 - 12
Test 2	Lectures 13 - 26

**Failure to attend a mid-semester test without the submission of a request for special consideration on the grounds of illness or unavoidable mishap together with supporting documentation will result in a mark of zero for the missed test. If you wish to advise of absence from mid-semester tests or tutorials you should fill out an Advice of Absence Form, available from the Student Centre, and submit it together, with appropriate supporting documentation, (including an EFS Professional Authority Advice form) to the Student Centre. The value of your final exam will be increased on a pro rata basis if special consideration is granted for a mid-semester test. Note that a Special Consideration Form needs to be filled out if special consideration from the final exam is being requested.**

## 6. COURSE DIARY 2003

Week	Date	Lecture Number		Tutorial
		Day	Evening	
1	March 4	1	1, 2	
	March 5	2, 3	3	
2	March 11	4	4, 5	<b>Tutorial 1</b>
	March 12	5, 6	6	
3	March 18	7	7, 8	<b>Tutorial 2</b>
	March 19	8, 9	9	
4	March 25	10	10, 11	<b>Tutorial 3</b>
	March 26	11, 12	12	
5	April 1	<b>TEST</b>	<b>TEST</b> , 13	
	April 2	13, 14	14	
6	April 8	15	15, 16	
	April 9	16, 17	17	
<b>MID-SEMESTER BREAK</b>				
7	April 29	18	18, 19	
	April 30	19, 20	20	
8	May 6	21	21, 22	<b>Tutorial 4</b>
	May 7	22, 23	23	
9	May 13	24	24, 25	<b>Tutorial 5</b>
	May 14	25, 26	26	
10	May 20	<b>TEST</b>	<b>TEST</b> , 27	
	May 21	27, 28	28	
11	May 27	29	29, 30	<b>Tutorial 6</b>
	May 28	30, 31	31	
12	June 3	32	32, 33	<b>Tutorial 7</b>
	June 4	33, 34	34	
13	June 10	35	35, 36	<b>Tutorial 8</b>
	June 11	36, 37	37	

## 7. TEXT AND REFERENCE BOOKS

The set text for the course is

**Eaton, B.C., D.F. Eaton and D.W.Allen (2002) *Microeconomics*, (5<sup>th</sup> Ed) New York: Prentice- Hall.**

Note: The 5<sup>th</sup> edition of the text will be wrapped together with the Devlin and Gallini study guide. It will also contain a personalised login that gives the student access to the website attached to the text ([www.pearsoned.ca/eaton](http://www.pearsoned.ca/eaton))

References to the following texts may also be given where appropriate:

- Schotter, A. (1994) *Microeconomics: A Modern Approach*, Harper Collins.
- Varian, H. R. (1996) *Intermediate Microeconomics*, (4<sup>th</sup> Ed), New York: Norton.
- Gravelle, H. and R. Rees (1981) *Microeconomics*, London: Longman.
- Koutsoyiannis, A. (1991) *Modern Microeconomics*, (2<sup>nd</sup> Ed), London: Macmillan.
- Frank, R. H. (2000) *Microeconomics and Behaviour*, (4<sup>th</sup> Ed) Boston: McGraw Hill.
- Chiang, A. C. (1984) *Fundamental Methods of Mathematical Economics*, (3<sup>rd</sup> Ed), New York: McGraw-Hill.

### Supplementary General Texts

A good strategy when confronted by conceptually difficult material is to see how the same material is treated in other texts. The following is a list of supplementary textbooks.

#### Intermediate level

- Katz, M.L. and H.S. Rosen (1991) *Microeconomics*, Boston: Irwin.
- Pindyck, R. S. and Rubinfeld, D. L. (1995) *Microeconomics*, (3<sup>rd</sup> Ed), New Jersey: Prentice-Hall.
- Mansfield, E., (1994) *Microeconomics: Theory and Applications*, (8<sup>th</sup> Ed), New York: Norton.
- Nicholson, W. (1990) *Microeconomic Theory*, (5<sup>th</sup> Ed), Hinsdale: Dryden.

#### Advanced.

- Mas-Collel, A., Whinston, M.D. and Green, J.R. (1995) *Microeconomic Theory* Oxford: Oxford University Press.
- Kreps, D.M. (1990) *A Course in Microeconomic Theory*, Hemel Hempstead: Harvester Wheatsheaf.
- Varian, H.R. (1994) *Microeconomic Analysis*, (3<sup>rd</sup> Ed) New York: Norton.
- Eatwell, J., Milgate, M. and Newman, P. (Eds) (1987) *The New Palgrave: A Dictionary of Economics*, London: Macmillan.

#### Mathematical

- James, D. E. and Throsby, C. D. (1973) *Introduction to Quantitative Methods in Economics*, Sydney: John Wiley.
- Dowling, Edward T (1992), *Introduction to Mathematical Economics*, (2<sup>nd</sup> Ed), New York: McGraw-Hill.

## **8. LECTURE OUTLINE AND READING GUIDE**

Every effort will be made to keep to the following lecture-by-lecture outline. As far as possible, changes will be notified in advance. Day and evening lectures with the same number are identical. In looking for reference material in the Library, always check Special Reserve first. The reading guide is intended as a basic guide only and further references may be given as the course proceeds.

### **1. INTRODUCTION**

#### **Lecture 1**

##### **1.1 Introduction and methodology**

- 1) What is microeconomics?
- 2) Describing an economy
  - Resource endowments
  - Technology
  - Preferences
  - Organisations
  - Institutions
- 3) Method of analysis
- 4) Partial versus general equilibrium
- 5) Positive versus Normative
- 6) Pareto criterion versus cost-benefit analysis

Eaton, Eaton and Allen, Ch 1

### **2. CONSUMER THEORY**

#### **Lectures 2 and 3**

##### **2.1 Rational behaviour**

- 1) Cost-benefit approach to decision making
- 2) Opportunity cost, sunk costs and rational behaviour
- 3) Self-interest versus present aim standards of rationality

##### **2.2 Consumer choice theory**

- 1) Consumer preferences
  - Consumption bundles
  - Preference ordering
  - Completeness
  - Transitivity
  - Non-satiation
  - Continuity
  - Strict convexity
  - MRS and DMRS
  - Indifference curves – relaxing the assumptions
- 2) Utility functions

Utility functions  
Marginal utility and MRS  
Ordinal utility  
Monotonic transformations

Eaton, Eaton and Allen, Ch 2

Frank, Ch1

Varian, pp70-72, Mathematical Appendix

## **Lectures 4, 5, 6 and 7**

### **2.3 Consumer demand theory**

- 1) The budget line
  - The budget constraint
  - The budget line
  - No money illusion
  - Composite commodities
  - Irregular budget lines
  - Endowments and the budget line
- 2) Optimisation
  - Consumer choice problem
  - Graphical analysis of utility maximisation and demand functions
  - Lagrange multiplier method
  - Cobb-Douglas utility function
- 3) Demand curves and Engel curves
  - Substitutes, complements, Giffin goods
  - Normal goods, inferior goods
- 4) Elasticities
  - Own price, cross price and income elasticities
- 5) Comparative statics applications
  - Excise tax versus a lump sum tax
  - Rationing
  - Indexation
- 6) Properties of demand functions
  - Income and substitution effects
  - Negative substitution effects
- 7) Compensated demand function
  - Graphical analysis
  - Lagrangian multiplier method
- 8) Market demand functions

Eaton, Eaton and Allen, Ch 3 and 4

Frank Chapter 4

Chiang pp 370 – 375

## **Lectures 8, 9 and 10**

### **2.4 Consumer Welfare Measurement**

- 1) Equivalent and compensating variation
- 2) Consumer surplus
- 3) EV, CV, CS and the welfare effects of taxes



- 4) Index numbers in quantity and price
  - Laspeyres
  - Paasche
  - Revealed preference

Eaton, Eaton and Allen, Ch4 pp 134-152

Gravelle and Rees, pp 103-110

Varian, Ch 7

## **Lectures 11 and 12**

### **2.5 Consumer Theory with Endowments: Saving/Borrowing and Labour Supply**

- 1) Budget constraint with endowments
- 2) Intertemporal consumption (Borrowing and lending)
  - Present and future value
  - Budget constraint
  - Choice and comparative statics
- 3) Labour supply
  - Time endowment
  - Full income
  - Leisure demand/labour supply

Eaton, Eaton and Allen, Ch 5, pp 156-179

Eaton, Eaton and Allen, Ch 11, pp 365-370

## **3. PRODUCTION AND COST THEORY**

### **Lecture 13**

#### **3.1 Production and Cost: One Variable Input**

- 1) The production function
  - Inputs and outputs
  - Leontief technology
  - Neoclassical technology
- 2) Product curves for the neoclassical production function
- 3) Short-run cost functions and cost curves

Eaton, Eaton and Allen, Ch 6

Schotter, pp 142-149

### **Lectures 14, 15, 16 and 17**

#### **3.2 Production and Cost: Many Variable Inputs**

- 1) The Leontief production function
  - The production set
  - Factor intensity
  - Input substitution
  
- 2) The neoclassical production function
  - Isoquants and input substitution

- Marginal rate of technical substitution (MRTS)
- Elasticity of substitution
- Perfect substitutes and complements
- Product transformation curves
- 3) Returns to scale (RTS)
  - Constant, increasing and decreasing RTS
  - Homogeneous production functions
  - Reasons for different RTS
- 4) The Cobb-Douglas production function
- 5) Technical progress and the production function
  - Capital-deepening technological progress
  - Labour-deepening technological progress
  - Hicks-neutral technological progress
- 6) Economies of scope
- 7) Cost minimisation
  - Isocost lines and cost minimising output
  - Changes in input prices
  - The output expansion path
- 8) Long-run costs from neoclassical theory
- 9) Long-run costs from the Cobb-Douglas production function
- 10) Recent revisions to cost theory
  - Short-run costs and reserve capacity
  - Long-run costs and minimum optimum scale

Eaton, Eaton and Allen, Ch 7

Schotter, Ch 5 and 6

Varian, Ch 17, 19 and 20

Gravelle and Rees, Ch 7 and 8

## **Lecture 18**

### **3.3 Empirical Testing of Production and Cost Theory**

- 1) Estimation of production functions
  - Levels of aggregation
  - Functional form
  - Data sources
  - Measurement problems
  - Dealing with technological change
  - Illustrative results
- 2) Estimation of cost functions
  - Functional form
  - Measurement problems
  - Illustrative results
- 3) Estimation of supply functions
  - Specification
  - Illustrative results
- 4) Estimation of factor demand functions
  - Specification

Illustrative results

See separate handout; see also

Intriligator, M.D., (1978) *Econometric Models Techniques and Applications* pp 251-288

## **4. THEORY OF THE FIRM**

### **Lectures 19**

#### **4.1 Different Types of Firm**

- 1) Firm organisation
  - Single proprietorship
  - Partnership
  - Public and private companies
  - Transnational firms and the “global corporation”
- 2) Modelling the profit maximising firm
  - Structure of the neoclassical firm
  - Critique
  - Reformulation

### **Lectures 20**

#### **4.2 Alternative Models of the Firm**

- 1) The sales/revenue maximising firm
  - Structure
  - Predictions
  - Advertising expenditures
  - Criticisms
- 2) The managerial utility maximising firm
  - Structure
  - Predictions
- 3) The not-for-profit firm
  - Nature of the nonprofit sector
  - Behaviour of not-for-profit firms
  - Rationales for existence of not-for-profit firms
- 4) Firm growth
  - External and internal inducements to firm growth
  - Limits on firm size/rate of growth

Eaton, Eaton and Allen, Ch 19 pp 604-617

Gravelle and Rees, Ch 6 and 13

Koutsoyiannis, Ch 15, 16 and 17

## **5. IMPERFECT INFORMATION**

### **Lectures 21, 22, 23 and 24**

#### **5.1 Choice under Imperfect Information**

- 1) Introduction
- 2) Budget set
  - Expected monetary value
  - Expected utility hypothesis

- Prospects
- 3) Preferences
  - Continuity
  - von Neumann-Morgenstern expected utility function
  - Indifference curves
  - Risk averse / Risk neutral / Risk inclined
- 4) Choice
  - Gambling
  - Risk pooling
  - Insurance
  - Risk spreading
  - Diversification

Eaton, Eaton and Allen, Ch 17

## Lectures 25 and 26

### 5.2 Market Failure with Uncertainty

- 1) Asymmetric Information
- 2) Hidden characteristics
  - Adverse selection and "Lemons"
  - Signaling
  - Screening
- 3) Hidden actions
  - Moral hazard

Eaton, Eaton and Allen, Ch 20

Frank, pp186 - 199

## 6. PERFECT AND IMPERFECT COMPETITION

### Lectures 27 and 28

#### 6.1 The Theory of Perfect Competition

- 1) Equilibrium price in competitive markets
- 2) Assumptions of perfect competition
  - Large numbers
  - Perfect information
  - Homogeneous product
  - Perfect mobility of factors
  - Independence
- 3) Short-run supply of the competitive firm
- 4) Aggregating demand and supply
- 5) Short-run competitive equilibrium
  - Producers' and consumers' surplus
- 6) Long-run equilibrium of the competitive firm
- 7) Long-run supply of the competitive firm
- 8) Long-run industry supply
  - Constant, increasing and decreasing cost industries
- 9) Some comparative statics

The incidence of taxes and tariffs  
The cobweb model

Eaton, Eaton and Allen, Ch 8, Ch 9 pp 311-317  
Schotter, Ch 12 and 13  
Varian, Ch 21 and 22

## **Lectures 29 and 30**

### **6.2 Monopoly**

- 1) Monopoly price and output
- 2) Inefficiency of monopoly
- 3) Sources of monopoly
  - Franchise
  - Patents
  - Resource supplies
  - Mergers and anti-competitive behaviour
  - Natural monopoly
- 4) Regulatory responses to monopoly
  - Anti-trust, consumer protection
  - Regulation of natural monopoly: average cost pricing and rate of return regulation
- 5) Contestable markets
  - Barriers to entry and sustainable monopoly
  - Contestability

Eaton, Eaton and Allen, Ch 10  
Schotter, Ch 9 and 10  
Varian, Ch 23  
Gravelle and Rees, Ch 11

## **Lecture 31**

### **6.3 Game Theory**

- 1) Strategies and payoffs
- 2) Maximin, minimax and Nash equilibrium
- 3) Mixed strategies
- 4) Dominant and dominated strategies
- 5) Zero-sum and non-constant-sum games
- 6) Games against Nature

Eaton, Eaton and Allen, Ch 15, pp 485-486  
Schotter, Ch 7  
Varian, Ch 27

## **Lectures 32 and 33**

### **6.4 Oligopoly**

- 1) Background to oligopoly
- 2) Non-collusive oligopoly
  - Conjectural variations and reaction functions
  - The Cournot model

- The Stackelberg quantity-leadership model
- The Bertrand model
- The limit-pricing model
- 3) Collusive oligopoly
  - The prisoners' dilemma game
  - Cooperative solution to Cournot and Stackelberg models
  - Collusion and cartels
- 4) Conclusions

Eaton, Eaton and Allen, Ch 15, pp 487-516

Schotter, Ch 11

Varian, Ch 26

Gravelle and Rees, Ch 12

## **7. GENERAL EQUILIBRIUM AND WELFARE ECONOMICS**

### **Lectures 34 and 35**

#### **7.1 General Equilibrium**

- 1) Basic building blocks of the general equilibrium model
- 2) Equilibrium for individual producers and consumers
- 3) A pure exchange economy
  - The Edgeworth box
  - The contract curve
- 4) A pure production economy
  - The production possibilities frontier
  - Pareto efficiency
- 5) Production and consumption: efficiency in product mix

Eaton, Eaton and Allen, Ch 13

### **Lectures 36 and 37**

#### **7.1 Welfare Economics**

- 1) The First Fundamental Theorem of Welfare Economics
- 2) Maximisation of social welfare
  - The grand utility frontier
  - Social welfare functions
- 3) The Second Fundamental Theorem of Welfare Economics
- 4) An overview of sources of market failure
- 5) Externalities and public goods
- 6) Efficiency and equity in market economies.

Eaton, Eaton and Allen, Ch 13 and 18