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.

Lecturer
Professor David Throsby: C5C 313, ph. 9850 8474, email. david.throsby@mq.edu.au.

Tutor-in-charge
Dr Arusha Cooray: C5C 376, ph. 9850 6476, email. 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:

<table>
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<tr>
<th>Component</th>
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<tbody>
<tr>
<td>Tutorial Attendance</td>
<td>10</td>
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<tr>
<td>Mid-semester Test 1</td>
<td>15</td>
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<tr>
<td>Mid-semester Test 2</td>
<td>15</td>
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<tr>
<td>Exam: multiple choice</td>
<td>20</td>
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<tr>
<td>Exam: essays/problems</td>
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<td><strong>Total</strong></td>
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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

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<tr>
<th>Week</th>
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<td>March 26</td>
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<td>April 9</td>
<td>16, 17</td>
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**MID-SEMESTER BREAK**

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<td>June 11</td>
<td>36, 37</td>
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7. TEXT AND REFERENCE BOOKS

The set text for the course is


Note: The 5th 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)

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


**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**


**Advanced.**


**Mathematical**

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, Ch 4 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

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.