

**ECON 6001**  
**Microeconomic Analysis**

**Course Outline**  
**Semester 1, 2017**

**Part A: Course-Specific Information**

Students are also expected to have read and be familiar with **Part B Supplement to All Course Outlines**. This contains Policies on Student Responsibilities and Support, Including Special Consideration, Academic Misconduct and Plagiarism, and Key Dates. It also contains the BUSINESS SCHOOL PROGRAM LEARNING GOALS.

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# 1 STAFF CONTACT DETAILS

## Weeks 1 – 7

Lecturer: Juan Carlos Carbajal  
Room BUS 407  
Email: [jc.carbajal@unsw.edu.au](mailto:jc.carbajal@unsw.edu.au)  
Consultation times: Mon 3-4pm, Fri 5-6pm

## Weeks 8 – 13

Lecturer: Carlos Pimienta  
Room QUAD 3125  
Email: [c.pimienta@unsw.edu.au](mailto:c.pimienta@unsw.edu.au)  
Consultation times: TBA

### 1.1 Communications with staff

You should feel free to contact your lecturers about any academic matter. However, it is strongly encouraged, for efficiency reasons, that all enquiries about the subject material be made at lectures or during consultation time. Discussion of course subject material **will not** be entered into via lengthy emails.

Email correspondence on administrative matters will be responded to within 48 hours, but not over weekends. Please note that the lecturers have no advance notice of the date and time of the final exam.

# 2 COURSE DETAILS

## 2.1 Teaching Times and Locations

Lectures start in Week 1 and continue through to Week 13. Time and location are Tuesdays 18:00 – 21:00, UNSW Business School 130.

## 2.2 Units of Credit

The course is worth 6 units of credit.

## 2.3 Summary of Course

The first part of the course deals with individual decision-making. Fundamental topics covered include utility maximisation, expenditure minimisation, duality, welfare changes, and decision making under uncertainty. Producer theory and competitive equilibrium shall also be discussed.

The second part of the course deals with game theory and strategic behaviour. Fundamental topics covered include static games of complete information, static games with incomplete information, and an introduction to dynamic games.

## 2.4 Aims and Relationship to Other Courses

The role of ECON 6001 within the PhD program is to provide core analytical skills in advanced microeconomics. This course describes the foundations of modern microeconomics as well as other topics that have been the subject of economic research in recent years.

## 2.5 Student Learning Outcomes

The Course Learning Outcomes are what you should be able to DO by the end of this course if you participate fully in learning activities and successfully complete the assessment items.

The Learning Outcomes in this course also help you to achieve some of the overall Program Learning Goals and Outcomes for all coursework students in the Business School. Program Learning Goals are what we want you to BE or HAVE by the time you successfully complete your degree. You demonstrate this by achieving specific Program Learning Outcomes - what you are able to DO by the end of your degree.

For more information on the Undergraduate Program Learning Goals and Outcomes, see Part B of the course outline.

The following table shows how your Course Learning Outcomes relate to the overall Program Learning Goals and Outcomes, and indicates where these are assessed:

Program Learning Goals and Outcomes		Course Learning Outcomes	Course Assessment Item
<i>This course helps you to achieve the following learning goals</i>		<i>On successful completion of the course, you should be able to:</i>	<i>This learning outcome will be assessed in the following items:</i>
1	Knowledge	Formulate economic as constrained or unconstrained optimisation problems.  Demonstrate familiarity with the mathematical fundamentals of optimisation theory.	<ul style="list-style-type: none"> <li>• Class Participation</li> <li>• Exams</li> </ul>
2	Critical thinking and problem solving	Critically apply optimisation techniques to solve microeconomic problems in a variety of contexts.	<ul style="list-style-type: none"> <li>• Class Participation</li> <li>• Exams</li> </ul>
3a	Written communication	Construct written work which is logically and professionally presented.	<ul style="list-style-type: none"> <li>• Exams</li> </ul>
3b	Oral communication	Communicate ideas in a succinct and clear manner.	<ul style="list-style-type: none"> <li>• Class Participation</li> </ul>
4	Teamwork	Work collaboratively to complete a task.	Not specifically assessed.
5a.	Ethical, environmental and sustainability considerations	Not specifically addressed in this course.	Not specifically assessed
5b.	Social and cultural awareness	Not specifically addressed in this course.	

## 3 LEARNING AND TEACHING ACTIVITIES

### 3.1 Approach to Learning and Teaching in the Course

The philosophy underpinning this course and its Teaching and Learning Strategies are based on “Guidelines on Learning that Inform Teaching at UNSW”. These guidelines may be viewed at: [www.guidelinesonlearning.unsw.edu.au](http://www.guidelinesonlearning.unsw.edu.au). Specifically, the lectures, tutorials and assessments have been designed to appropriately challenge students and support the achievement of the desired learning outcomes. A climate of inquiry and dialogue is encouraged between students and teachers and among students (in and out of class). The lecturer aims to provide meaningful and timely feedback to students to improve learning outcome.

Understanding and using economic models is key element in economic analysis and in undertaking research in economics. The best way to gain a deep understanding of these models is by working through the models yourself using a pen and paper. Look at the equations and write them out (or draw the diagrams). Note what variables enter into the models and make sure you can provide an intuitive explanation as to why they are there. Think about the assumptions used in the model and ask why they are used. Look at how the model is solved and then look at the solution and see if it makes economic sense. It usually takes time to build-up these skills so it is good practice to begin early in the session and do a little at a time. In the lectures we will work through important models; however the numerous problem sets will give you practice at working with and solving economic models and help you to acquire the necessary skills.

### 3.2 Learning Activities and Teaching Strategies

The examinable content of the course is defined by the references given in the Lecture Schedule and the content of Lectures.

#### *Lectures*

There is no official textbook for ECON 6001, although we will rely extensively on *Microeconomic Theory* (1995) by Mas-Colell, Whinston and Green, and *Essential Microeconomics* (2012), by John Riley. We shall cover one or two topics each lecture (see details below), and complement the material with some examples and applications in class. Students are expected to read the recommended sections of the textbooks **before the lecture**.

#### *Out-of-Class Study*

While students may have preferred individual learning strategies, it is important to note that most learning will be achieved outside of class time. Lectures can only provide a structure to assist your study, and tutorial time is limited.

An “ideal” strategy (on which the provision of the course materials is based) might include:

- Reading of the recommended chapter(s) of the textbooks and any other source readings **before the lecture**. This will give you a general idea of the topic area.
- Attendance at lectures. Here the context of the topic in the course and the important elements of the topic are identified. The relevance of the topic should be explained. You should come to lectures **ready to ask clarifying questions** to enhance your learning experience.
- Organize study groups to review material and **practice exercises from the textbooks** or **assigned in class**.

## 4 ASSESSMENT

### 4.1 Formal Requirements

In order to pass this course, you must:

- achieve a composite mark of at least 50 out of 100; and
- make a satisfactory attempt at ALL assessment tasks.

### 4.2 Assessment Details

Assessment Task	Weighting	Length	Due Date
Class Participation	10%	See 4.3 below	See 4.3 below
2 In-Class Tests	20% each	1 hour	See 4.4 below
Final Exam	50%	2 hours	See 4.4 below

### 4.3 Class Participation

Attendance is mandatory and active participation, via questions, answers to problems and so forth, is expected and encouraged. The marks (maximum of 10) for class participation will be announced at the end of the semester.

### 4.4 In-Class Tests and Final Examination

There will be two short in-class tests. The first one will be held in Week 6, and the second one in Week 11. There will be a comprehensive final examination during the University Exam Period. All these tests are **closed book**, meaning that you may not consult any textbook, notes or other material, nor may you communicate with each other while taking the tests.

Each In-Class Test will last for about 1 hour and contain one to three questions drawn from the material covered during the four prior lectures. Some questions will be selected directly from material covered in class. Thus, you are encouraged to work together solving relevant exercises for each topic. Each test is worth 20 marks of your final grade. **There will no make-up test** — unless you have a valid excuse (e.g., medical certificate), you will receive zero points if you miss one. If you have a valid excuse, the grade in your final examination will count towards the missing in-class test.

The Final Exam will last for 2 hours and will cover everything that we discuss in this course. You should see the In-Class Tests as a preparation for the final examination, but you should expect to be tested on topics not covered in the In-Class Tests as well. The Final Exam is worth 50 marks of your final grade. If you have a medical reason not to attend the Final Exam during the University Examination period, you should apply for a supplementary exam. But this will be granted only for **valid medical (or related) reasons**.

### 4.5 Quality Assurance

The Business School is actively monitoring student learning and quality of the student experience in all its programs. A random selection of completed assessment tasks may

be used for quality assurance, such as to determine the extent to which program learning goals are being achieved. The information is required for accreditation purposes, and aggregated findings will be used to inform changes aimed at improving the quality of Business School programs. All material used for such processes will be treated as confidential and will not be related to course grades.

## 5 COURSE EVALUATION AND DEVELOPMENT

Each year feedback is sought from students and other stakeholders about the courses offered in the School and continual improvements are made based on this feedback. UNSW's myExperience Survey Tool is one of the ways in which student evaluative feedback is gathered. You are strongly encouraged to take part in the feedback process.

## 6 COURSE RESOURCES

The website for this course is on UNSW Moodle at: <http://moodle.telt.unsw.edu.au>

The lecturer will post slides each week prior to our lectures. The slides include, but do not exhaust, testable material for our course. It is your responsibility to review the slides before coming to class, and to complement these with recommended readings from the textbooks (see below).

There is no official textbook for ECON 6001, although we will rely extensively on *Microeconomic Theory* (1995) by Mas-Colell, Whinston and Green, and *Essential Microeconomics* (2012), by John Riley. We shall cover one or two topics each lecture (see details below), and complement the material with some examples and applications in class. Students are expected to read the recommended sections of the textbooks **before the lecture.**

## 7 COURSE SCHEDULE

### 7.1 Lecture Schedule

Lectures start in Week 1 and finish in Week 13. There will not be lectures in Week 4 and Week 8. **MWG** refers to *Microeconomic Theory* (Oxford University Press 1995) by Mas-Colell, Whinston and Green. **R** refers to *Essential Microeconomics* (Cambridge University Press 2012) by John Riley.

LECTURE SCHEDULE		
Week	Topic	Reference
<b>Week 1</b> 27 Feb	Choice Theory and Consumer Choice with 2 Goods	<b>MWG 3.A-B</b> <b>R 2.1-2.2</b>
<b>Week 2</b> 6 Mar	Consumer Choice with L goods and Comparative Statics	<b>MWG 3.C-E</b> <b>R 2.3</b>
<b>Week 3</b> 13 Mar	Consumer Surplus and Willingness to Pay	<b>MWG 3.G</b> <b>R 2.4</b>
<b>Week 4</b> 20 Mar	<b>NO LECTURE</b>	

<b>Week 5</b> 27 Mar	The 2x2 Exchange Economy and Welfare Theorems	<b>MWG 10.B-D</b> <b>R 3.1-3.2</b>
<b>Week 6</b> 3 Apr	Profit Maximization by Price-Taking Firms <b>In-Class Test</b>	<b>MWG 5.B-D</b> <b>R 4.1-4.2</b>
<b>Week 7</b> 10 Apr	Industry Analysis and Monopoly Pricing	<b>MWG 12.A-B</b> <b>R 4.4-4.5</b>
Mid-semester break: Friday 14 – Saturday 22 April inclusive		
<b>Week 8</b> 24 Apr	<b>NO LECTURE (PUBLIC HOLIDAY)</b>	
<b>Week 9</b> 1 May	Risky Choices and Attitudes Towards Risk	<b>MWG 6.A-D</b> <b>R 7.1-7.2</b>
<b>Week 10</b> 8 May	Games of Complete Information	<b>MWG 7.B 8.B-D</b> <b>R 9.1</b>
<b>Week 11</b> 15 May	Sequential Games and Duopoly Games <b>In-Class Test</b>	<b>MWG 9.A-B</b> <b>R 9.2-9.3</b>
<b>Week 12</b> 22 May	Games of Incomplete Information	<b>MWG 8.E-F</b> <b>R 10.1</b>
<b>Week 13</b> 29 May	The Principal Agent Problem	<b>MWG 14.A-B</b> <b>R 7.4</b>