UNSW Course Outline

ECON7001 Microeconomic Theory I - 2024

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General Course Information

Course Code : ECON7001
Year : 2024
Term : Term 1
Teaching Period : T1
Is a multi-term course? : No
Faculty : UNSW Business School
Academic Unit : School of Economics
Delivery Mode : In Person
Delivery Format : Standard
Delivery Location : Kensington
Campus : Sydney
Study Level : Postgraduate
Units of Credit : 6

Useful Links

Handbook Class Timetable

Course Details & Outcomes

Course Description

This course deals with individual optimal decision making and equilibrium. Fundamental topics covered include rational choice, utility maximisation, expenditure minimisation, production theory, and decision making under uncertainty. Partial equilibrium, game theory and non-

competitive environments will also be covered. The course also explores economic environments with asymmetric information, including auctions and screening.

Course Aims

This is an introductory graduate course in microeconomic theory. Topics may include consumer theory, competitive equilibrium, game theory, and asymmetric information. The course will provide background for research in applied microeconomics, or for advanced coursework in microeconomic theory.

Relationship to Other Courses

This is an introductory graduate course in microeconomic theory. Topics may include consumer theory, competitive equilibrium, game theory, and asymmetric information. The course will provide background for research in applied microeconomics, or for advanced coursework in microeconomic theory, industrial organization, game theory, and organizational economics.

Course Learning Outcomes

Course Learning Outcomes	Program learning outcomes
CLO1 : Understand formal mathematical models of economic phenomena.	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO5 : Responsible Business Practice
CLO2 : Analyse formal mathematical models of economic phenomena.	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO5 : Responsible Business Practice

Course Learning Outcomes	Assessment Item
CLO1 : Understand formal mathematical models of economic phenomena.	• Student Presentations • Class participation • Homework assignment
CLO2 : Analyse formal mathematical models of economic phenomena.	• Student Presentations • Class participation • Homework assignment

Learning and Teaching Technologies

Moodle - Learning Management System

Learning and Teaching in this course

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; draw the diagrams and figures. 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 term and do a little at a time. In the lectures we will work through important models; however, problems in the textbooks will give you practice at working with and solving economic models and help you to acquire the necessary skills.

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 and seminars. The following are the main learning activities throughout the term.

Lectures and Tutorials

The purpose of the lectures is to provide a logical structure for the topics that make up the course; to emphasise the important concepts and methods of each topic; and to provide relevant examples to which the concepts and methods are applied. The purpose of the tutorials is to complement the material presented during lectures with additional applications, examples and problem sets. As with the case of the lectures, provisions to meet virtually are in place and will be discussed at the appropriate time.

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 inclass time is limited. An ideal strategy (on which the provision of the course materials is based) includes:

- Reading of the relevant chapter(s) of the text and any readings before lectures. This will give you a general idea of the topic area.

- Watch carefully any pre-recorded material that may have been assigned prior to the lectures.
- Attending lectures and seminars on campus. The context, importance, and relevance of course material is identified and clarified here.
- Actively participating in lectures and seminars, including student presentations.

Other Professional Outcomes

Not applicable

Additional Course Information

Not applicable

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates	Program learning outcomes
Student Presentations Assessment Format: Individual	20%	Start Date: Week 10 Due Date: Week 10	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO5 : Responsible Business Practice
Class participation Assessment Format: Individual	20%	Start Date: ongoing. Due Date: ongoing.	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO4 : Teamwork • PLO5 : Responsible Business Practice
Homework assignment Assessment Format: Individual	60%	Start Date: ongoing Due Date: ongoing	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO5 : Responsible Business Practice

Assessment Details

Student Presentations

Assessment Overview

Students will make a presentation during week 10. In each presentation, students will discuss topics related to the material covered during lectures and tutorials.

Course Learning Outcomes

- CLO1 : Understand formal mathematical models of economic phenomena.
- CLO2 : Analyse formal mathematical models of economic phenomena.

Detailed Assessment Description

Students will make one presentation during Week 10. Depending on the number of students enrolled in the course each student will have between 30 and 50 minutes for their presentation. Allocation of students to presentation dates will be made randomly at the beginning of the term. In each presentation, students will discuss topics related to the material covered in the lectures, including problems and examples, additional applications or complementary material.

Assessment Length

30 to 50 minutes

Assessment information

Not applicable

Assignment submission Turnitin type

Not Applicable

Class participation

Assessment Overview

Active participation during lectures and seminars is expected and encouraged. The marks for class
participation will be recorded on a weekly basis and announced at the end of the term, prior to the final exam.

Course Learning Outcomes

- CLO1 : Understand formal mathematical models of economic phenomena.
- CLO2 : Analyse formal mathematical models of economic phenomena.

Detailed Assessment Description

The marks (maximum of 10) for class participation will be recorded on a weekly basis, and will be announced at the end of the term, prior to the final exam. Please inform the LIC if you are unable to participate live in the lectures and seminars on campus. Alternative evaluation methods will be discussed if you have a **valid** reason.

Assignment submission Turnitin type

Not Applicable

Homework assignment

Assessment Overview

Students have to submit answers to four homework assignments throughout the term. Each HW assignment (worth 15 marks) will consist of a small number of problems. Students will have on average two weeks to complete each HW assignment.

Course Learning Outcomes

- CLO1 : Understand formal mathematical models of economic phenomena.
- CLO2 : Analyse formal mathematical models of economic phenomena.

Detailed Assessment Description

There will be four assignments to be posted in Moodle at the beginning of each of Weeks 1, 3, 6, and 8. Each assignment is due two weeks after being posted online. The assignments will test your knowledge of the material discussed during the lecture and tutorials, and will consist of three to five problems to be solved at home. Students will submit their solutions online via Moodle in a single pdf document. Each homework assignment is potentially worth 15% of the course grade.

Assignment submission Turnitin type

This is not a Turnitin assignment

General Assessment Information

As a student at UNSW you are expected to display academic integrity in your work and interactions. Where a student breaches the UNSW Student Code with respect to academic integrity, the University may take disciplinary action under the Student Misconduct Procedure. To assure academic integrity, you may be required to demonstrate reasoning, research and the process of constructing work submitted for assessment.

To assist you in understanding what academic integrity means, and how to ensure that you do comply with the UNSW Student Code, it is strongly recommended that you complete the Working with Academic Integrity module before submitting your first assessment task. It is a free, online self-paced Moodle module that should take about one hour to complete.

Grading Basis

Standard

Requirements to pass course

In order to pass this course students must:

- Achieve a composite mark of at least 50 out of 100
- Engage actively in course learning activities and attempt all assessment requirements
- Meet any additional requirements specified in the assessment details

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 12 February - 18 February	Lecture	Preferences and Choice • Preference-Based approach • Choice-Based approach Competitive Budgets • Commodity Space • Competitive Budget MWG Chapter 1 (B, C, D). MWG Chapter 2 (B, C, E).
	Seminar	Demand Function • Basic properties MWG Chapter 2 (E, F)
Week 2 : 19 February - 25 February	Lecture	Demand Theory I • Preference Relations • Preference and Utility • Utility Maximisation Problem MWG Chapter 3 (B, C, D)
	Seminar	Applications of demand theory
Week 3 : 26 February - 3 March	Lecture	Demand Theory II • Expenditure Minimisation Problem • Indirect Utility and Expenditure • Aggregate Demand • Solving UMP and EMP MWG Chapter 3 (D, E, G) MWG Chapter 4 (B)
	Seminar	Applications of demand theory
Week 4 : 4 March - 10 March	Lecture	Production Theory • Production Sets • Profit Maximisation Welfare Economics • Exchange Economies • Pareto Optimality • Welfare Theorems MWG Chapter 5 (B, C) MWG Chapter 15 (B) MWG Chapter 10 (B, D)
	Seminar	Applications of production theory and welfare economics
Week 6 : 18 March - 24 March	Lecture	Choice under Uncertainty • Preferences over Lotteries • Expected Utility MWG Chapter 6 (B, C) MSZ Chapter 2 (1, 2, 3, 4, 5, 7)
	Seminar	Applications of choice under uncertainty
Week 7 : 25 March - 31 March	Lecture	Choice under Uncertainty • Money Lotteries and Risk • Comparing Lotteries • Insurance Markets MWG Chapter 6 (C, D) MSZ Chapter 2 (1, 2, 3, 4, 5, 7)
	Seminar	Applications of choice under uncertainty
Week 8 : 1 April - 7 April	Lecture	Game Theory I • Extensive Form Games • Strategic Form Games • Mixed and Behavioral Strategies

		• Dominant Strategies MWG Chapter 7 (B, C, D, E) MWG Chapter 8 (B) MSZ Chapter 3 (1, 2, 3) MSZ Chapter 4 (1, 2, 3, 4, 5)
	Seminar	Applications of game theory
Week 9 : 8 April - 14 April	Lecture	Game Theory II • Nash Equilibrium • Sequential Rationality • Subgame Perfection MWG Chapter 8 (D, E) MSZ Chapter 4 (8, 9) MSZ Chapter 5 (3, 4) MSZ Chapter 8 (1, 2)
	Seminar	Applications of game theory
Week 10 : 15 April - 21 April	Presentation	Final student presentations
	Presentation	Final student presentations

Attendance Requirements

Students are strongly encouraged to attend all classes and review lecture recordings.

Course Resources

Prescribed Resources

The website for this course is on UNSW Moodle.

The required textbook is Microeconomic Theory (1995) by Mas-Colell, Whinston and Green (MWG). The recommended textbook for the second part of the course is Game Theory (2020) by Maschler, Solan and Zamir (MSZ). Additional references include Advanced Microeconomic Theory (2011) by Jehle and Reny, Essential Microeconomics (2012) by Riley, and An Introduction to Game Theory (2004) by Osborne.

We will cover topics via synchronous lectures and tutorials, complementing these with pre-recorded sessions when appropriate. In addition, examples and problem sets will be covered during the seminar sessions and student presentations. Students are expected to read the recommended sections of MWG (and/or MSZ)
before the lectures, and to actively watch the pre-recorded sessions when instructed.

Course Evaluation and Development

Feedback is regularly sought from students and continual improvements are made based on this feedback. At the end of this course, you will be asked to complete the myExperience survey, which provides a key source of student evaluative feedback. Your input into this quality enhancement process is extremely valuable in assisting us to meet the needs of our students

and provide an effective and enriching learning experience. The results of all surveys are carefully considered and do lead to action towards enhancing educational quality.

The School of Economics strives to be responsive to student feedback. If you would like more information on how the design of this course and changes made to it over time have taken students' needs and preferences into account, please contact the Director of Education at the School of Economics.

Consent for De-Identified Data to be Used for Secondary Research into Improving Student Experience

To enhance your student experience, researchers at UNSW conduct academic research that involves the use of de-identified student data, such as assessment outcomes, course grades, course engagement and participation, etc. Students of this course are being invited to provide their consent for their de-identified data to be shared with UNSW researchers for research purposes after the course is completed.

Providing consent for your de-identified data to be used in academic research is voluntary and not doing so will not have an impact on your course grades.

Researchers who want to access your de-identified data for future research projects will need to submit individual UNSW Ethics Applications for approval before they can access your data.

A full description of the research activities aims, risks associated with these activities and how your privacy and confidentiality will be protected at all times can be found here.

If you consent to have your de-identified data used for academic research into improving student experience, you do not need to do anything. Your consent will be implied, and your data may be used for research in a format that will not individually identify you after the course is completed.

If you do not consent for this to happen, please email the opt-out form to seer@unsw.edu.au to opt-out from having your de-identified data used in this manner. If you complete the opt-out form, the information about you that was collected during this course will not be used in academic research.

Staff Details

Position	Name	Email	Location	Phone	Availability	Equitable Learning Services Contact	Primary Contact
Convenor	Juan Carlos Carbajal		BUS 407		Mon & Thu 3:30 - 4:00pm during Weeks 1 to 10 and by appointment	No	Yes

Other Useful Information

Academic Information

COURSE POLICIES AND SUPPORT

The Business School expects that you are familiar with the contents of this course outline and the UNSW and Business School learning expectations, rules, policies and support services as listed below:

- Program Learning Outcomes
- Academic Integrity and Plagiarism
- Student Responsibilities and Conduct
- Special Consideration
- Protocol for Viewing Final Exam Scripts
- Student Learning Support Services

Further information is provided on the key policies and support page.

Students may not circulate or post online any course materials such as handouts, exams, syllabi or similar resources from their courses without the written permission of their instructor.

STUDENT LEARNING OUTCOMES

The Course Learning Outcomes (CLOs) – under the Outcomes tab – are what you should be able to demonstrate by the end of this course, if you participate fully in learning activities and successfully complete the assessment items.

CLOs also contribute to your achievement of the Program Learning Outcomes (PLOs), which are developed across the duration of a program. PLOs are, in turn, directly linked to UNSW graduate capabilities. More information on Coursework PLOs is available on the key policies and support page. For PG Research PLOs, including MPDBS, please refer to the UNSW HDR Learning Outcomes.

Academic Honesty and Plagarism

As a student at UNSW you are expected to display academic integrity in your work and interactions. Where a student breaches the UNSW Student Code with respect to academic integrity, the University may take disciplinary action under the Student Misconduct Procedure. To assure academic integrity, you may be required to demonstrate reasoning, research and the process of constructing work submitted for assessment.

To assist you in understanding what academic integrity means, and how to ensure that you do comply with the UNSW Student Code, it is strongly recommended that you complete the Working with Academic Integrity module before submitting your first assessment task. It is a free, online self-paced Moodle module that should take about one hour to complete.

Submission of Assessment Tasks

SPECIAL CONSIDERATION

You can apply for special consideration when illness or other circumstances beyond your control interfere with your performance in a specific assessment task or tasks, including online exams. Students studying remotely who have exams scheduled between 10pm and 7am local time, are also able to apply for special consideration to sit a supplementary exam at a time outside of these hours.

Special consideration is primarily intended to provide you with an extra opportunity to demonstrate the level of performance of which you are capable. To apply, and for further information, see Special Consideration on the UNSW Current Students page.

Special consideration applications will be assessed centrally by the Case Review Team, who will update the online application with the outcome and add any relevant comments. The change to the status of the application immediately sends an email to the student and to the assessor with the outcome of the application.

Please note the following:

1. Applications can only be made through Online Services in myUNSW (see the UNSW Current Students page). Applications will not be accepted by teaching staff. The lecturer-in-charge/ course coordinator will be automatically notified when your application is processed.
2. Applying for special consideration does not automatically mean that you will be granted a

supplementary exam or other concession.
3. If you experience illness or misadventure in the lead up to an exam or assessment, you must submit an application for special consideration, either prior to the examination taking place, or prior to the assessment submission deadline, except where illness or misadventure prevent you from doing so.
4. If your circumstances stop you from applying before your exam or assessment due date, you must apply within 3 working days of the assessment or the period covered by your supporting documentation.
5. Under the UNSW Fit To Sit/Submit rule, if you sit the exam/submit an assignment, you are declaring yourself well enough to do so and are cannot subsequently apply for special consideration.
6. If you become unwell on the day of – or during – an exam, you must stop working on your exam, advise your course coordinator or tutor and provide a medical certificate dated within 24 hours of the exam, with your special consideration application. For online exams, you must contact your course coordinator or tutor immediately via email, Moodle or chat and advise them you are unwell and submit screenshots of your conversation along with your medical certificate and application.
7. Special consideration requests do not allow the awarding of additional marks to students.

Further information on Business School policy and procedure can be found under “Special Consideration” on the key policies and support page.

LATE SUBMISSION PENALTIES

For assessments other than examinations, late submission will incur a penalty of 5% per day or part thereof (including weekends) from the due date and time. An assessment will not be accepted after 5 days (120 hours) of the original deadline unless special consideration has been approved. An assignment is considered late if the requested format, such as hard copy or electronic copy, has not been submitted on time or where the ‘wrong’ assignment has been submitted.

For assessments which account for 10% or less of the overall course grade, and where answers are immediately discussed or debriefed, the LIC may stipulate a different penalty. Details of such late penalties will be available on the course Moodle page.

FEEDBACK ON YOUR ASSESSMENT TASK PERFORMANCE

Feedback on student performance from formative and summative assessment tasks will be provided to students in a timely manner. Assessment tasks completed within the teaching period of a course, other than a final assessment, will be assessed and students provided with

feedback, with or without a provisional result, within 10 working days of submission, under normal circumstances. Feedback on continuous assessment tasks (e.g. laboratory and studio-based, workplace-based, weekly quizzes) will be provided prior to the midpoint of the course.

Faculty-specific Information

PROTOCOL FOR VIEWING FINAL EXAM SCRIPTS

UNSW students have the right to view their final exam scripts, subject to a small number of very specific exemptions. The UNSW Business School has set a protocol under which students may view their final exam script. Individual schools within the Faculty may also set up additional local processes for viewing final exam scripts, so it is important that you check with your School.

If you are completing courses from the following schools, please note the additional school-specific information:

- Students in the **School of Accounting, Auditing & Taxation** who wish to view their final examination script should also refer to this page.
- Students in the **School of Banking & Finance** should also refer to this page.
- Students in the **School of Information Systems & Technology Management** should also refer to this page.

COURSE EVALUATION AND DEVELOPMENT

Feedback is regularly sought from students and continual improvements are made based on this feedback. At the end of this course, you will be asked to complete the myExperience survey, which provides a key source of student evaluative feedback. Your input into this quality enhancement process is extremely valuable in assisting us to meet the needs of our students and provide an effective and enriching learning experience. The results of all surveys are carefully considered and do lead to action towards enhancing educational quality.

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.

TEACHING TIMES AND LOCATIONS

Please note that teaching times and locations are subject to change. Students are strongly advised to refer to the Class Timetable website for the most up-to-date teaching times and locations.