ECON4411/8011
Microeconomic Theory

This course is an introduction to the foundations of modern microeconomic theory and provides a rigorous treatment of some of the basic tools of economic modelling and reasoning. Topics include choice theory, with and without uncertainty, consumer and producer theory, efficiency, and fundamentals of general equilibrium.

Mode of Delivery	In person
Prerequisites	ECON8025 and ECON2015 (or ECON6015 or ECON8013)
Incompatible Courses	—
Co-taught Courses	ECON4411 and ECON8011
Course Convener/Lecturer:	Simon Grant
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Office hours for student consultation:	Thursdays 1:30pm-3:20pm Arndt 2006
Research Interests	microeconomic theory, decision theory, game theory, mathematical economics

SEMESTER 2
2018

COURSE OVERVIEW

Learning Outcomes

By the end of this course, students will be able to:

1. apply the basic tools of economic modelling and reasoning to understand individual decision-making and outcomes in competitive markets;

2. analyze individual behavior and outcomes in competitive markets using these basic tools; and

3. evaluate the appropriateness and limitations of these economic methods and their application.

Assessment Summary

Assessment Task	Value	Due Date
1. Problem sets	40%	Mondays
2. Exam	60%	TBA

There will be (almost) weekly problem sets, a midterm exam and a final. Nearly every week a new problem set will be distributed at Monday's class meeting. In general, the problems will be on the previous week's material. The nature of this subject is analytical, and so the problem sets are designed both to test your understanding of the main concepts introduced in the lectures and developed in the textbook; as well as to help hone your skill in applying these analytical tools to economic issues. So as to provide you with reasonably fast feedback, the problem sets will be due to be handed in by 9:00am the following Tuesday. I will endeavour to have them graded to hand back on the Friday's class meeting. The last part of that class will be devoted to discussing the problem sets, focussing on any particular difficulties that the class encountered.

Research-Led Teaching

This course is research-informed in two ways. First, students will learn the foundations of modern microeconomic theory and the course will provide them an opportunity to familiarize with research questions and results in this field of economics. Second, students will have exposure to discipline-specific research methods and techniques, thus the course will provide them an opportunity to develop these skills.

Feedback

Staff Feedback
Students will be given feedback in the form of whole-class and individual discussions, and graded assignments.

Student Feedback
ANU is committed to the demonstration of educational excellence and regularly seeks feedback from students. One of the key formal ways students have to provide feedback is through Student Experience of Learning Support & Teaching (SELTS) surveys. The feedback given in these surveys is anonymous and provides the Colleges, University Education Committee and Academic Board with opportunities to recognise excellent teaching, and opportunities for improvement.

For more information on student surveys at ANU and reports on the feedback provided on ANU courses, go to

http : //unistats.anu.edu.au/surveys/selt/students/ and
http : //unistats.anu.edu.au/surveys/selt/results/learning/

<u>Policies</u>

ANU has educational policies, procedures and guidelines, which are designed to ensure that staff and students are aware of the University's academic standards, and implement them. You can find the University's education policies and an explanatory glossary at: http : //policies.anu.edu.au/

Students are expected to have read the Academic Misconduct Rule before the commencement of their course.

Other key policies include:

- Student Assessment (Coursework)

- Student Surveys and Evaluations

<u>Recommended Resources</u>

Textbook
Kreps, D. M. (2013). Microeconomic Foundations I: Choice and Competitive Markets. Princeton University Press.

Kreps is a comprehensive book which covers (nearly) all the material covered in this course. However, it is pitched at the level suitable for the first year of a top Economics PhD program in North America or Europe, and so, you may find it hard going, at least initially.

There are a wide variety of other texts covering all or parts of topics listed below, so if you are having difficulty following Kreps's treatment of any topic you may find it useful to consult the following books:

Economics and Consumer Behaviour by Angus Deaton and John Muellbauer, Cambridge University Press, 1980.

Microeconomics by H. Gravelle and R. Rees, Longman, 2nd edition, 1992.

A Course in Microeconomic Theory by David M. Kreps, Harvester Wheatsheaf, 1990.

Microeconomic Analysis by Hal R. Varian, 3rd edition, W W Norton & Co., 1992.

Microeconomic Theory by Andreu Mas-Colell, Michael D. Whinston and Jerry R. Green, Oxford University Press, 1995.
Mas-Colell, Whinston and Green (hereafter, MWG)

The first two are pitched primarily at the advanced undergraduate level, so although you may find them more accessible they are <u>not</u> a substitute for Kreps. The latter three are written at a similar level to Kreps and so conceivably could be used as an alternative text for the course.
The nature of the subject necessarily entails the use of mathematics. But I wish to stress that the mathematics is only a tool and the emphasis on the course will be on understanding microeconomic

principles. Both Kreps and MWG have useful mathematical appendices that provide definitions and explanations of all the mathematical techniques that will be employed in this course. The most relevant sections for this course are Appendix One to Appendix Five in Kreps (pp439–484) and in MWG, appendices M.A through to M.G , (pp926-948), M.I and M.J (pp954-963). Other mathematical economics texts that students in previous years have found useful include:

Mathematics for Economists by C.P. Simon and L. Blume, W.W. Norton, 1994.

Mathematics for Economics, Third Edition by M. Hoy, J. Livernois, C. McKenna, R. Rees and T. Stengos, MIT Press, 2011.

For students who have not studied much mathematics in their undergraduate degree programs or for whom it has been quite a while since they undertook any mathematics course, the Hoy et al book is probably the most suitable, at least to begin with.

COURSE SCHEDULE

The following is a brief outline of the topics that will be covered. The relevant readings (that is, chapter and section) from Kreps's book are given in brackets at the end of each subtopic. You will get more from the lectures if you do the required reading for each topic before the class in which that topic will be covered.

1. Consumer Theory and Demand (4 weeks)

   - axiomatic description of consumer preferences and properties (1.1-1.8, 2.1-2.7)
   - utility maximisation and properties of demand functions (3.1-3.4)
   - duality theory: expenditure and indirect utility functions (10.1-10.8, 11.1-11.3)
   - integrability and revealed preference theory (4.1-4.3, 11.5 & 11.6)
   - evaluation of economic change (12.1)
   - aggregation of demand (13.2)

2. Choice under Uncertainty (2 weeks)

   - (Subjective) Expected Utility Theory (5.1-5.5)
   - measures of risk and risk aversion (6.1-6.3)

3. Production and Cost (2 weeks)

   - production sets and production functions (MWG 5.A,5.B)
   - profit maximisation and cost minimisation (MWG 5.C)
     – duality theory: profit and cost functions
   - aggregation of supply (MWG 5.E)
   - efficient production (MWG 5.F)
   - price-taking and profit maximisation (MWG 5.G)

4. General Equilibrium for Competitive Economies (4 weeks)

- Introduction (14.1-14.6)
- the two fundamental theorems of welfare economics (15.1, 15.2)
- core and equilibria (15.3, 15.4)
- general equilibrium under uncertainty. (16.1-16.6)

ASSESSMENT REQUIREMENTS

The ANU is using Turnitin to enhance student citation and referencing techniques, and to assess assignment submissions as a component of the University's approach to managing Academic Integrity. For additional information regarding Turnitin please visit the ANU Online website.

Students may choose not to submit assessment items through Turnitin. In this instance you will be required to submit, alongside the assessment item itself, copies of all references included in the assessment item.

As a further academic integrity control, students may be selected for a 15 minute individual oral examination of their written assessment submissions.

Any student identified, either during the current semester or in retrospect, as having used ghost writing services will be investigated under the University's Academic Misconduct Rule.

Assignment submission

Online Submission: Assignments are submitted using Turnitin in the course Wattle site. You will be required to electronically sign a declaration as part of the submission of your assignment. Please keep a copy of the assignment for your records.

Extensions and penalties

Extensions and late submission of assessment pieces are covered by the Student Assessment (Coursework) Policy and Procedure.

The Course Convener may grant extensions for assessment pieces that are not examinations or take-home examinations. If you need an extension, you must request it in writing on or before the due date. If you have documented and appropriate medical evidence that demonstrates you were not able to request an extension on or before the due date, you may be able to request it after the due date.

No submission of assessment tasks without an extension after the due date will be permitted. If an assessment task is not submitted by the due date, a mark of 0 will be awarded.

Returning assignments

Marked assignments will be returned during tutorial sessions.

Scaling

Your final mark for the course will be based on the raw marks allocated for each of your assessment items. However, your final mark may not be the same number as produced by that formula, as marks may be scaled. Any scaling applied will preserve the rank order of raw marks (i.e. if your raw mark exceeds that of another student, then your scaled mark will exceed the scaled mark of that student), and may be either up or down.

Privacy Notice

The ANU has made a number of third party, online, databases available for students to use. Use of each online database is conditional on student end users first agreeing to the database licensor's terms of service and/or privacy policy. Students should read these carefully.

In some cases student end users will be required to register an account with the database licensor and submit personal information, including their: first name; last name; ANU email address; and other information.

In cases where student end users are asked to submit 'content' to a database, such as an assignment or short answers, the database licensor may only use the student's 'content' in accordance with the terms of service – including any (copyright) licence the student grants to the database licensor.

Any personal information or content a student submits may be stored by the licensor, potentially offshore, and will be used to process the database service in accordance with the licensors terms of service and/or privacy policy.

If any student chooses not to agree to the database licensor's terms of service or privacy policy, the student will not be able to access and use the database. In these circumstances students should contact their lecturer to enquire about alternative arrangements that are available.

Tutorial Seminar Registration

There is no tutorial registration for this course.

SUPPORT FOR STUDENTS

The University offers a number of support services for students. Information on these is available online from http : //students.anu.edu.au/studentlife/