

ECON6102

Advanced Macroeconomic Analysis

Course Outline

Semester 2, 2017

Course-Specific Information

The Business School expects that you are familiar with the contents of this course outline. You must also be familiar with the Course Outlines Policies webpage which contains key information on:

- Program Learning Goals and Outcomes
- Academic Integrity and Plagiarism
- Student Responsibilities and Conduct
- Special Consideration
- Student Support and Resources

This webpage can be found on the Business School website:

<https://www.business.unsw.edu.au/degrees-courses/course-outlines/policies>

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1 STAFF CONTACT DETAILS

Lecturer-in-charge: Geni Dechter

Location: Room 3123 QUAD

Phone: 9385 7478

Email: e.dechter@unsw.edu.au

Consultation Times: By appointment

1.1 Communications with staff

You should feel free to contact your lecturer about any academic matter. However, we strongly encourage, for efficiency, all enquiries about the subject material be made at tutorials or during consultation time. The lecturer will hold regular office by appointment starting Week 2 until Week 13.

Email is the recommended means of initial communication with the teaching staff for this course. Discussion of course subject material will not be entered into via lengthy emails.

Lecturers will reply to email within 48 hours, except on weekends, with the following provisions:

- The question should require a one (or two) sentence response (maximum). If it takes more, office hours are the more appropriate venue.
- We will never answer emails that request information that can be found on the Moodle website or the syllabus.
- We will not reply to emails concerning grading. For such matters, office hours are more appropriate.
- It is also (strongly) preferable that you use an UNSW email address: Our spam filter is set to maximum. Moreover, university policy stipulates a preference for these email addresses.
- Always identify yourself and the course code in your email.
- Please do not send attachments of any kind unless requested by the lecturers.
- Please do not submit term work by email unless requested by the lecturers.

We encourage you to provide course feedback and comments via email, if you wish. Please note that the lecturer has no advance notice of the date and time of the exam.

2 COURSE DETAILS

2.1 Teaching Times and Locations

Lectures start in Week 1 (to Week 12): The Time and Location are:
Tuesday 18:00-21:00, Business School 130.

2.2 Units of Credit

The course is worth 6 units of credit.

2.3 Summary of Course

This course is an introduction to the dynamic general equilibrium approach to macroeconomics. A feature of this approach is that it considers the whole economy at all times. This is especially helpful in the design of economic policy, where we aim to understand the wider effects of any given measure. The dynamic general equilibrium approach evolved from neoclassical macroeconomics and real business cycle theory to

include many aspects of the aggregate economy, including rational expectations, the open economy, exchange rates, nominal rigidities, and monetary and fiscal policy. We will discuss the equilibrium of a basic decentralised closed economy, fiscal policy and the sustainability of the fiscal stance, the open economy, the exchange rate and the terms of trade, money, prices and monetary policy.

For each topic, we will also learn problem solving and numerical techniques and apply them in the particular topic in discussion. Some data analysis is also part of the learning process.

2.4 Aims and Relationship to Other Courses

The course aims to provide benefits to students in terms of:

- The ability to use advanced macroeconomic tools in addressing economic policy questions;
- An understanding of the different ways in which economic policy issues can be tackled and the way in which economic policies affect economic performance;

This course is a 2nd part of the graduate course on advanced macroeconomics. It will build on the material that was taught in Macroeconomic Analysis (ECON6002). You must have completed ECON6002 with satisfactory grades or have completed equivalent course material. Relative to your past-level studies in economics, you will acquire an extra layer of professional knowledge and core analytical skills in advanced macroeconomics.

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 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 Program Learning Goals and Outcomes, see the School's Course Outlines Policies webpage available at <https://www.business.unsw.edu.au/degrees-courses/course-outlines/policies>.

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	Explain the assumptions and structure of standard models in macroeconomics Analyse and manipulate these models Use statistical skills to present data relevant to problems in macroeconomics.	<ul style="list-style-type: none"> • Assignments • Exams

2	Critical thinking and problem solving	Use the standard models of advanced macroeconomics to interpret and analyse real problems in macroeconomics	<ul style="list-style-type: none"> • Assignments • Exams
3a	Written communication	Construct written work which is logically and professionally presented.	<ul style="list-style-type: none"> • Assignments
3b	Oral communication	Communicate ideas in a succinct and clear manner.	<ul style="list-style-type: none"> • In-class participation
4	Teamwork	Work collaboratively to complete a task.	<ul style="list-style-type: none"> • Group Assignments
5a.	Ethical, environmental and sustainability considerations	Identify and assess environmental and sustainability considerations in problems in international macroeconomics.	<ul style="list-style-type: none"> • Reading list and presentations
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. Specifically, the lectures, tutorials and assessment 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 lecturers and tutors aim to provide [meaningful and timely feedback to students to improve learning outcome](#).

An effective learning strategy (on which the course materials are based) is the following:

- Prior to attending a lecture, download the lecture notes, read them and the relevant material from the textbook, bring the notes with you to the lecture.
- Attend the lecture. The relevant material from the textbook forms the basis for the lecture. Key concepts will be emphasised and demonstrated through worked examples.
- Assignments: do not be discouraged if you cannot answer all of the questions as some questions are more difficult than others. Attempting the assigned questions will provide a self-test of your understanding of particular topics and identify those topics which may require further attention.

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. In some cases, you will should work through the data and convince yourself that the model is an appropriate specification. 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 material covered in lectures, tutorials and problem sets.

Lectures

The purpose of 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. As not all topics will be presented extensively, students should refer to the textbook for further details and be sure to attempt the tutorial exercises.

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.

4 ASSESSMENT

4.0 You must complete the “Working with Academic Integrity” module on your Moodle site, before you hand in any written work.

- You **MUST** complete the ‘Working with Academic Integrity’ module **AND THE MODULE’S QUIZ**, found on your course Moodle site, **BEFORE YOU ARE ALLOWED TO SUBMIT ANY WRITTEN ASSESSMENT**.
- If your submission is delayed because you did not complete the module and the quiz, you may be liable to late penalties as specified in your course outline.
- Failing to comply with the University rules of Academic integrity may result in serious consequences:
 - All cases of plagiarism (regardless of their severity) **ARE** recorded with the University Integrity Office University register.
 - Depending on the level of the plagiarism/misconduct, the penalties may include a **FAIL** grade for the assessment piece, a **FAIL** grade for the course, or being expelled for serious/repeat offences.

Any misconduct, including plagiarism, is recorded on your Conduct Record. If you have only one academic misconduct at the lowest level (level A) in your career, then the record is wiped clear when you graduate. Otherwise it remains there permanently. *Many professions, such as accounting and law, require access to the student’s Conduct Record.*

4.1 Formal Requirements

To be eligible for a passing grade in this course, students must:

- Achieve a composite mark of at least 50 per cent;
- AND**

- Satisfactorily complete all assessment tasks or submit appropriate documentation relating to your failure to complete a task to the Lecturer in Charge.

4.2 Assessment Details

Assessment Task	Weighting	Length	Due Date
Assignment (5-7)	30%	See section 4.3	TBA. See section 4.3
Presentations	20%	In Class (Week 11-12)	See section 4.4
Participation	10%	All weeks	
Final Exam	40%	In Class (Week 13)	See section 4.5
Total	100%		

4.3 Assignments

The problem sets will be based on the theoretical models covered in lectures. They are designed to provide students with practice in obtaining the necessary skills to analyse and solve economic models. Collaboration among classmates is encouraged, however, students must acknowledge any help received from other students. Failure to acknowledge will be considered plagiarism.

There will be 5 to 7 assignments (details will be provided in Class). Students are encouraged to self-organize into groups of 2-3 members each and hand in one assignment per group. **All assignments must be written in Latex.**

Students have to present a paper in class. Instructions will be provided. Participation and discussion in class will be rewarded.

4.4 Presentations

Each student will choose a paper from the reading list to present in class. The presentation will take 30 minutes. The evaluation will be based on the quality of presentation and ability to answer questions. Presentation schedule will be set up during the first/second week of the semester.

4.5 Final Exam

The final examination will test material covered in Weeks 1 to 12.

Further information on the content of the Final Exam will be provided towards the end of session. The purpose of the final examination is to assess knowledge of basic macroeconomic concepts and theory covered during the whole class.

4.6 Protocol for viewing final exam scripts

The UNSW Business School has set a protocol under which students may view their final exam script. Please check the protocol [here](#).

4.7 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>

Additional materials such as solutions to the tutorial exercises, lecture notes, slides, etc. will be provided through the course website on UNSW Moodle.

There is no prescribed textbook for the second half of course. Students may find the following graduate textbooks (available in the UNSW library) useful for some parts of the course.

Lars Ljungqvist and Thomas J. Sargent, *Recursive Macroeconomics Theory*, 2nd edition, The MIT Press (2004) (3rd edition is also available)

Nancy L. Stokey and Robert E. Lucas, with Edward C. Prescott, *Recursive Methods in Economic Dynamics*, Harvard University Press (1989)

Thomas Cooley, *Frontiers of Business Cycle Research*, Princeton University Press (1995)

Jerome Adda and Russell Cooper, *Dynamic Economics*, The MIT Press (2003)

7 COURSE SCHEDULE

7.1 Lecture and Tutorial Schedule

LECTURE SCHEDULE		
Week	Topic	Reference
Week 1 25 July	Introduction Solow's Model and Dynamic Optimization	Lecture notes Stokey and Lucas, Ch. 2-4
Week 2 1 August	Dynamic optimization: Sequential methods in Infinite Horizon	Lecture notes Stokey and Lucas, Ch. 2-4
Week 3 8 August	Introduction to Matlab and Practical Dynamic Programming – Numerical Solutions using Value Function Iteration	Lecture notes Ljungqvist and Sargent, Ch. 3-5 Stokey and Lucas, Ch. 2-4 Adda and Cooper, Ch. 2-3 Online resources: http://www.math.ucsd.edu/~bdriver/21d-s99/matlab-primer1.html www.math.toronto.edu/mpugh/primer.pdf
Week 4 15 August	Dynamic Programming	Lecture notes Stokey and Lucas, Ch. 2-4 Ljungqvist and Sargent, Ch.3;
Week 5 22 August	Uncertainty and complete and incomplete markets.	Lecture notes Ljungqvist and Sargent, Ch.2; Ljungqvist and Sargent, Ch.17;
Week 6 29 August	The neoclassical growth model under uncertainty	Lecture notes Stokey and Lucas, Ch. 9
Week 7 5 September	Competitive equilibrium under uncertainty	Lecture notes Ljungqvist and Sargent, Part III; Stokey and Lucas, Part III
Week 8 12 September	Real Business Cycle models	Lecture notes Finn Kydland and Edward C. Prescott, "Time to Build and Aggregate Fluctuations," <i>Econometrica</i> , 1982. John Long and Charles Plosser, "Real Business Cycles", <i>Journal of Political Economy</i> , 1983. Prescott, Edward, "Theory Ahead of Business Cycle Measurement," <i>Carnegie-Rochester Conference on Public Policy</i> , Autumn 1986, 25, pp. 1 1-44. Robert King, Charles Plosser and Sergio T. Rebelo, "Production, Growth and Business Cycles, I. The Basic Neoclassical Model," <i>Journal of Monetary Economics</i> , 21, no. 2/3 (May 1988): 195-232.
Week 9 19 September	Economic Growth Technological change	Lecture notes Ljungqvist and Sargent, Ch.14;

Mid-semester break: 23 September – 2 October inclusive (2 Oct = Labour Day Public Holiday)		
Week 10 3 October	Endogenous growth models Business cycle	Lecture notes Ljungqvist and Sargent, Ch.14;
Week 11 10 October	Aggregation and heterogeneous agents/ Intro to search & matching models	Lecture notes Aiyagari, Rao, (1994). "Uninsured Idiosyncratic Risk and Aggregate Saving," Quarterly Journal of Economics, 109(3), pp. 659-84. Per Krusell and Anthony A. Smith, Jr. (1998). "Income and Wealth Heterogeneity in the Macroeconomy," Journal of Political Economy, Vol. 106, No. 5 (October 1998), pp. 867-896 Ljungqvist and Sargent, Ch.6.
Week 12 17 October	Calibration of the Neoclassical Growth Model	Lecture notes Cooley, Ch. 1-2