UNSW Course Outline

ECON7002 Macroeconomic Theory I - 2024

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General Course Information

Course Code : ECON7002
Year : 2024
Term : Term 2
Teaching Period : T2
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 is an introduction to advanced macroeconomics. We will begin by learning about economic growth, the key facts and theories explaining them. To be able to characterize outcomes from the covered theoretical frameworks, we will also develop basic tools for solving

models, such as dynamic programming. Building on prior tools we will cover dynamic competitive equilibrium models. Then both competitive equilibrium and economic growth models are extended to environment with uncertainty. Finally, heterogenous agent models will be introduced.

Course Aims

The aim of this course is to provide students with advanced theoretical knowledge and skill sets for analysing macroeconomic policy issues and understanding modern macroeconomic policy debates.

This course is the first graduate course in advanced macroeconomics for the Master of Pre-Doctoral Business Studies. It will build on the material that is taught in intermediate courses in macroeconomics. Relative to your past studies in economics, you will acquire from this course an extra layer of professional knowledge and core analytical skills in advanced macroeconomics.

Course Learning Outcomes

Course Learning Outcomes	Program learning outcomes
CLO1 : Identify and explain the assumptions and structure of standard models in macroeconomics	• PLO1 : Business Knowledge • PLO2 : Problem Solving
CLO2 : Analyse and critically manipulate these models	• PLO1 : Business Knowledge • PLO2 : Problem Solving
CLO3 : Apply the models to interpret and analyse problems in macroeconomics	• PLO1 : Business Knowledge • PLO2 : Problem Solving
CLO4 : Recognise and assess numerical tools to solve rational expectation models and analyse their quantitative prediction	• PLO1 : Business Knowledge • PLO2 : Problem Solving
CLO5 : Construct economic arguments in terms of the above concepts, and present their arguments	• PLO1 : Business Knowledge • PLO2 : Problem Solving • PLO3 : Business Communication • PLO7 : Leadership Development

Course Learning Outcomes	Assessment Item
CLO1 : Identify and explain the assumptions and structure of standard models in macroeconomics	• Problem sets • Final exam
CLO2 : Analyse and critically manipulate these models	• Problem sets • Final exam
CLO3 : Apply the models to interpret and analyse problems in macroeconomics	• Problem sets • Final exam
CLO4 : Recognise and assess numerical tools to solve rational expectation models and analyse their quantitative prediction	• Problem sets • Final exam
CLO5 : Construct economic arguments in terms of the above concepts, and present their arguments	• Problem sets • Final exam

Learning and Teaching Technologies

Moodle - Learning Management System

Learning and Teaching in this course

Use of your Webcam and Digital Devices: If you enrol in an online class, or the online stream of a hybrid class, teaching and associated activities will be conducted using Teams, Zoom, or similar a technology. Using a webcam is optional, but highly encouraged, as this will facilitate interaction with your peers and instructors. If you are worried about your personal space being observed during a class, we encourage you to blur your background or make use of a virtual background.

Please contact the Lecturer-in-Charge if you have any questions or concerns.

Some courses may involve undertaking online exams for which your own computer or digital devices will be required. Monitoring of online examinations will be conducted directly by University staff and is bound by the University's privacy and security requirements. Any data collected will be handled accordance with UNSW policies and standards for data governance. For more information on how the University manages personal information please refer to the UNSW Student Privacy Statement and the UNSW Privacy Policy.

Approach to Learning and Teaching in the Course

The philosophy underpinning this course and its teaching and learning strategies is based on “Guidelines on Learning that Inform Teaching at UNSW". Specifically, the lectures, seminars, 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 lecturers and tutors aim to provide meaningful and timely feedback to students to improve learning outcomes. Understanding and using economic models is a 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 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, but the numerous problem sets 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, the content of lectures, and the content of the seminar program.

Lectures

The purpose of lectures is to provide a logical structure for the topics that make up the course, to

emphasize 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 seminar exercises. Lectures will be offered as on-campus delivery. There is an expectation that every student will come to campus to attend the face-to-face lecture, as lecture contents will not be recorded.

Seminars

The object of the seminars is to discuss various approaches to, and issues associated with, the assigned exercises and topics covered in the course. Seminars will be offered as on-campus delivery. There is expectation that every student will come to campus and attend a face-to-face seminar as seminar contents will not be recorded.

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

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

Attendance at lectures and seminars. Here the context of the topic in the course and the important elements of the topic are identified. The relevance of the topic will be explained.

Attending consultation hours for any clarification and further understanding of the course contents.

Assessments

Assessment Structure

Assessment Item	Weight	Relevant Dates
Problem sets Assessment Format: Individual Short Extension: Yes (1 day)	50%	
Final exam Assessment Format: Individual	50%	

Assessment Details

Problem sets

Assessment Overview

The **three assignments** (each with equal weight) will be problem sets based on the theoretical models covered in lectures and seminars. They are designed to provide students with practice in obtaining the necessary skills to analyze and solve economic models. In the first two assignments, collaboration among classmates is encouraged but each student must submit their original and individual assignment, and acknowledge any help received from other students. Failure to acknowledge will be considered plagiarism. Please see the Course Outline 'Policies and Support' page for information about Academic Integrity and Plagiarism.

Course Learning Outcomes

- CLO1 : Identify and explain the assumptions and structure of standard models in macroeconomics
- CLO2 : Analyse and critically manipulate these models
- CLO3 : Apply the models to interpret and analyse problems in macroeconomics
- CLO4 : Recognise and assess numerical tools to solve rational expectation models and analyse their quantitative prediction
- CLO5 : Construct economic arguments in terms of the above concepts, and present their arguments

Final exam

Assessment Overview

There will be a final assessment during the university exam period. The exam covers all the material developed in the class.

Course Learning Outcomes

- CLO1 : Identify and explain the assumptions and structure of standard models in macroeconomics
- CLO2 : Analyse and critically manipulate these models
- CLO3 : Apply the models to interpret and analyse problems in macroeconomics
- CLO4 : Recognise and assess numerical tools to solve rational expectation models and analyse their quantitative prediction
- CLO5 : Construct economic arguments in terms of the above concepts, and present their arguments

Detailed Assessment Description

The purpose of the fnal exam is to assess knowledge of basic macroeconomic concepts and theories covered in the whole course. Further information on the content of the fnal examination

will be provided towards the end of the term. The final exam will be held during the UNSW exam period (details to be confrmed).

(*)This course will have an invigilated exam held on UNSW's Kensington campus. It is a mandatory requirement that you attend the exam on-campus.

Hurdle rules

The final exam is a requirement for successful completion of the course.

General Assessment Information

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
- Meet the specified attendance requirements of the course (see Schedule section)

Course Schedule

Teaching Week/Module	Activity Type	Content
Week 1 : 27 May - 2 June	Topic	Competitive Equilibrium and Pareto Optimality
	Other	Lecture notes (provided courtesy of Professor Dirk Krueger) LS Ch. 8
Week 2 : 3 June - 9 June	Topic	Introduction to the Neoclassical Growth Model and Dynamic Programming
	Other	Lecture notes LS Ch. 3-5 SLP Ch. 2-4 CL Ch. 1-2
Week 3 : 10 June - 16 June	Topic	Practical Dynamic Programming – numerical solutions using value function iteration
	Other	Lecture notes SLP Ch. 2-4 AC Ch. 2-3
	Assessment	Assignment 1 due (See Assessment section).
Week 4 : 17 June - 23 June	Topic	Calibration of the Neoclassical Growth Model
	Other	Lecture notes CL Ch. 1-2
Week 5 : 24 June - 30 June	Topic	Introduction to Real Business Cycle Models (RBC) • Motivation and Assumptions • First-order conditions
	Other	King, Plosser, and Rebelo (1988) King, Plosser, and Rebelo (2002) The ABCs of RBCs - McCandles (2008) Class notes
	Assessment	Assessment 2 due (See Assessment section).
Week 6 : 1 July - 7 July	Other	Flexibility week - no lectures and no tutorials.
Week 7 : 8 July - 14 July	Topic	Introduction to Real Business Cycle Models (RBC) (Continued) • First order conditions Solution techniques – log linearization • Solving Linear Rational Expectation Models Solving models in Dynare
	Other	King, Plosser, and Rebelo (1988) King, Plosser, and Rebelo (2002) The ABCs of RBCs - McCandles (2008) Blanchard and Kahn (1980) Class notes
Week 8 : 15 July - 21 July	Topic	Mechanism nad Critique of RBC models • Transmission of shocks • Drawbacks • Extensions
	Other	Resuscitating Real Business Cycle Models – King and Rebelo (1999) The ABCs of RBCs - McCandles (2008) Class notes
Week 9 : 22 July - 28 July	Topic	Environment with nominal rigidities • Sticky Prices • Basics of New Keynesian Model - Role of Monetary Policy
	Other	Mankiw (1985) Blanchard and Kiyotaki (1987) Gali (2015), Ch 3 Class notes
Week 10 : 29 July - 4 August	Studio	• New Keynesian Model continued • Special topics (if time permits)
	Other	Mankiw (1985) Blanchard and Kiyotaki (1987) Gali (2015), Ch 3 Class notes
	Assessment	Assessment 3 due (See Assessment section).

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.

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 course.

Students may find the following textbooks (available in the UNSW Library) useful for some of the first half of the course (Weeks 1-4):

(LS) Lars Ljungqvist and Thomas J. Sargent, Recursive Macroeconomics Theory, 4th edition, The MIT Press (2018) (SLP) Nancy L. Stokey and Robert E. Lucas, with Edward C. Prescott, Recursive Methods in Economic Dynamics, Harvard University Press (1989)

(CL) Thomas Cooley, Frontiers of Business Cycle Research, Princeton University Press (1995) (AC) Jerome Adda and Russell Cooper, Dynamic Economics, The MIT Press (2003).

For the second half of the course (Weeks 5, 7-10), we cover some chapters from the following books and complement them with the articles also listed below. Specific chapter references for each week will be provided ahead of class.

McCandles, George - The ABCs of RBCs: An Introduction to Dynamic Macroeconomic Models - (2008)

King, Plosser, and Rebelo - Journal of Monetary Economics – 1988 - Production, growth and business cycles: I. The basic neoclassical model

King, Plosser, and Rebelo - Computational Economics -2002- Production, Growth and Business Cycles: Technical Appendix

Blanchard and Kahn - Econometrica -1980 - The Solution of Linear Difference Models Under Rational Expectations

Mankiw, Gregory - Small Menu Costs and Large Business Cycles: A Macroeconomic Model of Monopoly - The Quarterly Journal of Economics, 1985

Blanchard, Olivier and Kiyotaki, Nobuhiro - Monopolistic Competition and the Effects of

Aggregate Demand, 1987

Gali, Jordi - Monetary Policy, Inflation, and the Business Cycle An Introduction to the New Keynesian Framework and Its Applications - Second Edition, 2015

Complementary Articles: Clarida R, Gali J and M Gertler (1999), “The Science of Monetary Policy: A New Keynesian Perspective”, Journal of Economic Literature, Vol. 37, No. 4, pp 1661-1707
Eggertsson, G. B., & Woodford, M. (2003). Optimal monetary policy in a liquidity trap (No. w9968). National Bureau of Economic Research

Eggertsson, G. B., & Mehrotra, N. R. (2014). A model of secular stagnation (No. w20574). National Bureau of Economic Research.

Mancini Griffoli T (2013), “Dynare user guide: An introduction to the solution and estimation of DSGE”, Available at http://www.dynare.org/

Sims C (2001), “Solving Linear Rational Expectations Models”, Computational Economics, 20:1-20.

Uhlig H (1995), “A Toolkit for Analyzing Nonlinear Dynamic Stochastic Models Easily”, Tilburg University, Center for Economic Research Discussion Paper No 97.

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.

In response to previous students' feedback, this course will incorporate more hands-on empirical exercises in all assessments.

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
Lecturer	Benoit Julien		Office 405, Business School Building	+61 2 9065 9741	Thursday 2-4pm, and by appointment	Yes	Yes
Tutor	Yue Hua					No	No

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.