ECON 411
Advanced Macroeconomic Theory

Semester 1, 2021

Paper Description and Aims

This paper covers advanced theories in macroeconomics. It covers tools for building and solving macroeconomic models, with applications to monetary policy, fiscal policy, inflation, business cycles, and economic growth. By the end of the paper you should have enhanced your ability to understand and critically assess contemporary advanced economic theory across a broad spectrum of macroeconomic topics.

Prerequisites: ECON 377 or (ECON 270 and ECON 376). *Restriction:* ECON 401

Students are expected to comply with all University rules and regulations. Students are expected to independently inform themselves about those rules and regulations and the details about this paper, especially its assessments.

Learning Outcomes

Upon successful completion of this paper, you should be able to:

[1] understand and critically evaluate contemporary advanced macroeconomic models and identify how such theories can provide a basis for further theoretical and applied research;

[2] explain how the theory can be used to analyse and understand contemporary economic problems, and to apply theory to specific problems;

[3] communicate theoretical ideas using written English, mathematics, and statistics, as appropriate.

Course Delivery
Lecture Day/Time: Monday: 10.00am-12.00 noon
Tuesday: 2.00-3.00pm
Room: tba

Lectures present the key conceptual material through discussion and interaction between teaching staff and students. All lectures are mandatory. Lectures are supported by readings.

Teaching Staff
Lecturer (weeks 1-5)   *Lecturer (weeks 6-13)*
Dennis Wesselbaum   Alfred Haug
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Office hours: On demand   Office Hours: tba

You should contact the Economics Reception Desk (ERD) with any administrative enquiries about the paper. The ERD is located on the 5th floor of the OBS and operates Monday-Friday, 9:30-3:330pm.

Course Learning Resources

Readings
Lecture notes or overviews and reading lists will be provided by each lecturer as needed. Readings will be either provided, be made available on reserve at the Central Library, be accessible online via the University of Otago Library, or be generally accessible online.

Blackboard
Blackboard provides you with access to some course materials. Blackboard is used to email the whole class so it is important that you check your student email and *Blackboard* regularly, or redirect your emails to your personal account.

Computation
Computing resources for assigned work are available for Senior students in room 5.22 OBS and for all students in the computer labs on the 1st floor of the Business School.

Assessment
All material presented during the term is assessable (except where stated otherwise) by assignments and the examination. All important assessment information such as due dates and times, content, guidelines and so on will be discussed at lectures. *Students are responsible for ensuring that they are aware of this information, keeping track of their own progress, and catching up on any missed classes.*

Internal Assessments
For weeks 1 to 5, two assessment items will be done, the first worth **20%** of your final mark is a mid-semester test and the second item is a project worth **20%** of your final mark. Details on assignments will be given in class. The deadline for the project will be announced in class. Internal assessments will test your ability to apply the course material (Learning outcome #2) and your written communication skills (Learning outcome #3). Official dates will be announced in lectures.

For weeks 6 to 13, there will be one assignment, worth **25%** of the final course mark. In addition, an exam at the end of the semester (during class time) will be held, worth **35%** of your final course mark. The assignment and exam will include a variety of questions and will test your critical understanding of the course material (Learning outcome #1) and your written communication skills (Learning outcome #3).

Grading
The grading scheme used at Otago is

A+	90-100
A	85-89
A-	80-84
B+	75-79
B	70-74
B-	65-69
C+	60-64
C	55-59
C-	50-54
D	40-49
E	<40

Policies

Dishonest Practice and Plagiarism

Students should ensure that all assessed work is their own. Any student found responsible for dishonest practice in any piece of work submitted for assessment shall be subject to the University's dishonest practice regulations, which may result in serious penalties. A guideline for dishonest practice is available at https://www.otago.ac.nz/study/academicintegrity/index.html. The Library resource on ethical use of information is available at: http://oil.otago.ac.nz/oil/module8.html.

Untimely Submission of Assessment Items

Late assignments will be accepted for evaluation for university-approved reasons only (in the event of illness, family emergency, or conflict with a university-sponsored event). Supporting documentation must be provided.

Calendar

The calendar and its content below are subject to change during the semester. Changes will be announced during lectures.

Week of 1st March (Dr Wesselbaum) The Real Business Cycle Model

- Develop and solve the widely used business cycle model

Week of 8th March (Dr Wesselbaum) Numerical Methods

- Applied view on how to solve DSGE models

Week of 15th March (Dr Wesselbaum) The New Keynesian Model

- Extending the RBC model by introducing sticky prices

Week of 22nd March (Dr Wesselbaum) Unemployment

- Building a business cycle model with equilibrium unemployment

Week of 29th March (Dr Wesselbaum) Financial Frictions

- Extending the New Keynesian model by incorporating financial frictions

Week of 5th April (Mid-semester break)

Week of 12th April (Professor Haug) Empirical studies of money (part 1)

- Monetary policy shocks: covariance stationary processes, unit roots, cointegration; basics of VAR modelling

Week of 19th April (Professor Haug) Empirical studies of money (part 2)

- Vector Autoregressions (VARs) – setup, lag choice, estimation; policy transmission channels

- Empirical monetary policy transmission in VARs: impulse response functions

Week of 26th April (Professor Haug) Empirical studies of money (part 3)

- Non-linear VAR models; monetary and fiscal policy in non-linear VARs

Week of 3rd May (Professor Haug) Empirical studies of money (part 4)

- Issues with structural identification (short-run, long-run, sign restrictions), unit roots, and cointegration for impulse response function analysis

Week of 10th May (Professor Haug) Theory of Money (part 1)

- The role of money in various mainstream macroeconomic models: basic concepts and an overview; Lucas critique; micro-foundations of macroeconomics

- a simple partial-equilibrium model of money demand and its flaws

Week of 17th May (Professor Haug) Theory of money (part 2)

- Overlapping generations models of money

- Cash-in-advance-constraint models of money

- Money-in-the-utility-function models

Week of 24th May (Professor Haug) Theory of money (part 3)

- Search-theoretic models of money

- Summery and overview; practice questions for the in-class test

Week of 31st May (Professor Haug)

- In-class examination for material covered in weeks 6 to 12: on 31 May

- Assignment due 4 June