



## School of Economics and Finance

# ECON 402 ADVANCED MACROECONOMIC ANALYSIS 1

Second Trimester 2005

## **COURSE OUTLINE**

## **Contact Details**

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#### **Class Times and Room Numbers**

Monday 10:30 am – 12:20 pm RH G02

The final examination will be held at the place and the time, in the period of 10 October - 6 November, to be announced later by the university authority.

## **Course Objectives**

The objective of the co-requisite courses ECON 402 and 403 is to provide students with a comprehensive knowledge of modern open economy macroeconomic theory. ECON 402 focuses on developments in New Classical Macroeconomics.

ECON 402 also aims to provide students with an ability to formulate and solve macroeconomic problems analytically, and a general appreciation of how policymakers can use the analysis in practice.

## **Course Content and Readings**

ECON 402 commences with a brief perspective on major modern approaches to macroeconomic theory. It then covers the linear rational expectations models. The concept of rational expectations and the characteristics of rational expectations solutions are discussed. Issues that pertain to macroeconomic stabilisation policy under rational expectations, e.g. Lucas critique, policy neutrality, discretionary policy vs. rules, are reviewed. Implications of rational expectations for the behaviour of foreign exchange markets are also discussed. It then introduces models based on representative agent's intertemporal optimisation. It is shown how the issues that pertain to consumption, investment, fiscal policy, and, business cycles are investigated in these models.

Primary emphasis in ECON 402 is on theory, but the policy relevance of theory and issues arising from empirical evidence are also given attention.

Textbook for the course is:

Obstfeld, Maurice and Kenneth Rogoff, *Foundations of International Macroeconomics*, Cambridge, MIT Press, 1996, Pp 804 + xxiii.

In addition to the textbook, following book will be referred to in several sections of the course.

McCallum, Bennett T, *Monetary Economics: Theory and Policy*, New York, Macmillan, 1989, Pp 356 + xii.

As a good example of how policy makers can use the modern developments in macroeconomic analysis, occasionally reference will be made to relevant sections of:

Black, Richard, Vincenzo Cassino, Aaron Drew, Eric Hansen, Benjamin Hunt, David Rose, and Alasdair Scott, *The Forecasting and Policy System: the core model*, Research paper No. 43, RBNZ Wellington, August 1997.

In choosing the following reading material, degree of readability by beginning graduate students has been considered. When a more readable material is found, I have included it in the reading list instead of the original journal article. Titles of original articles will be mentioned in the relevant class.

Major Modern Approaches to Macroeconomic Theory (0.5 lecture)

This will provide a brief perspective on the major developments in approaches to macroeconomic theory since early 1970s.

- Mankiw, N Gregory, "A Quick Refresher Course in Macroeconomics", *Journal of Economic Literature*, 28(4), December 1990, pp. 1645-1660.
- McCallum, Bennett T, "New Classical Macroeconomics: A Sympathetic Account", Scandinavian *Journal of Economics*, 91(2), 1989, pp. 223-264.
- McCallum, Bennett T, "Macroeconomics After Two Decades of Rational Expectations", *Journal of Economic Education*, Summer 1994, pp. 219-234.
- *The Economic Record*, June 1989, Symposium on Macroeconomics, pp. 177-189 (contributions by Robert J Gordon, and John B Taylor)
- *American Economic Review*, Papers and Proceedings, May 1997, "Is There a Core of Practical Macroeconomics that We Should All Believe?", pp. 230-246 (contributions by Robert M Solow, John B Taylor, Martin Eichenbaum, Alan S Blinder, and Oliver Blanchard)
- Taylor, John B and Michael Woodford, "Preface", *Handbook of Macroeconomics*, Amsterdam, Elsevier North-Holland, 1999.

### <u>Rational Expectations Hypothesis and Solutions of Rational Expectations Models</u> (1.5 lectures)

Basic properties and solution procedures of linear rational expectations models are explained. Topics covered also include (a) comparison between fundamental and bubble solutions, and (b) brief introduction on how nonlinear rational expectations model can be analyised by loglinearising the necessary conditions for optimisation around the steady state.

- McCallum, Bennett T, *Monetary Economics: Theory and Policy*, New York, Macmillan, 1989, Pp 356 + xii, Chs. 7 & 8.
- McCallum, Bennett T, "On Non-Uniqueness in Rational Expectations Models: An Attempt at Perspective", *Journal of Monetary Economics*, March 1983, pp. 139-168.
- Begg, David, The *Rational Expectations Revolution in Macroeconomics*, London, Philip-Allan, 1982, Chs. 1, 2, 3, & 4(pp. 71-74).
- Blanchard, Oliver J and Stanley Fischer, *Lectures on Macroeconomics*, Cambridge, MIT Press, 1989, Pp 650 + xiii, Ch. 5, pp. 213-225, 257-261.
- Uhlig, Harald, "A Toolkit for Analyzing Nonlinear Dynamic Stochastic Models Easily", Ch. 3 in Ramon Marimon and Andrew Scott (ed.), *Computational Methods for the Study of Dynamic Economies*, Oxford University Press, 1999. <u>http://www.wiwi.hu-berlin.de/wpol/html/toolkit.htm</u>(Section 4)

Obstfeld and Rogoff, Ch. 8(pp. 515-526).

#### The Natural Rate Hypothesis and the Stabilisation Policy (1 lecture)

Alternative explanations of inflation-unemployment correlations and their implications for stabilisation policy are discussed. The concept of dynamic inconsistency and its relevance to the policy rules versus discretion debate is also covered.

- McCallum, Bennett T, *Monetary Economics: Theory and Policy*, New York, Macmillan, 1989, Pp 356 + xii, Chs. 9, 10, 11 & 12.
- Walsh, Carl E, *Monetary Theory and Policy*, 2<sup>nd</sup> Edition, Cambridge, MIT Press, 2003, Pp 612 + xviii, Sections 5.3.3, 8.1 & 8.2.

Obstfeld and Rogoff, Ch. 9(pp. 634-647).

#### Flexible vs. Sticky Price Models of Exchange Rate Determination (1.5 lecture)

Implications of rational expectations for the behaviour of foreign exchange markets are presented and evaluated in the light of empirical evidence. Interesting topic covered here is the relative importance of real shocks and nominal shocks as sources of exchange rate fluctuations. Implications of flexible price (i.e., market-clearing) models and sticky price (i.e.,

non-market-clearing) models are compared. Empirical support/nonsupport for different approaches is also discussed.

- McCallum, Bennett T, *International Monetary Economics*, New York, Oxford University Press, 1996, Pp 270 + ix, Chs. 8 & 9.
- McCallum, Bennett T, *Monetary Economics: Theory and Policy*, New York, Macmillan, 1989, Pp 356 + xii, Ch. 14(ss. 14.1-14.4).
- Obstfeld and Rogoff, Ch. 8(pp. 526-530, pp. 546-547).
- McCallum, Bennett T, "Unit Roots in Macroeconomic Time Series: Some Critical Issues", Economic *Quarterly*, Federal Reserve Bank of Richmond, Spring 1993, pp. 13-43.
- Blanchard, Oliver J and Danny Quah, "The Dynamic Effects of Aggregate Demand and Supply Disturbances", *American Economic Review*, 79(4), September 1989, pp. 655-673.
- Enders, Walter and Bong-Soo Lee, "Accounting for Real and Nominal Exchange Rate Movements in the Post-Bretton Woods Period", *Journal of International Money and Finance*, Vol. 16, No. 2, 1997, pp. 233-254.
- Stockman, Alan C, "The Equilibrium Approach to Exchange Rates", *Economic Review*, Federal Reserve Bank of Richmond, March-April 1987, pp. 12-30.

#### Intertemporal Consumption (1.5 lectures)

Models of consumption demand from the point of view of intertemporal optimisation are presented and critically appraised.

- Obstfeld and Rogoff, Chs. 1(pp. 1-5, 28), 2(pp. 60-66, 70-72, 79-85, 96-98), Ch3(pp. 133-136, 146-147).
- Hall, Robert E, "Consumption", Ch. 4 in Robert J Barro (ed.), *Modern Business Cycle Theory*, Cambridge, Harvard University Press, 1989, pp. 153-177.
- Abel, Andrew B, "Consumption and Investment", Ch. 14 in B M Friedman and F H Hahn (eds.), *Handbook of Monetary Economics*, Vol II, Elsevier, 1990, pp. 725-750, 774-778.
- Campbell, J Y and N G Mankiw, "Consumption, Income and Interest Rates: Reinterpreting the Time Series Evidence", in O J Blanchard and S Fischer (eds.), *NBER Macroeconomics Annual 1989*, Cambridge, MIT Press, pp. 185-245.
- Kim, Kunhong, Viv B Hall, and Robert A Buckle, "Consumption-Smoothing in a Small, Cyclically Volatile Open Economy: Evidence from New Zealand", forthcoming in *Journal of International Money and Finance*.

**Business Fixed Investment** (1 lecture)

Various approaches to the explanation of business fixed investment are discussed. Particular attention is given to the q theory, which is an intertemporal optimization approach that explicitly takes account of adjustment costs. Empirical relevance of q theory is also investigated.

Obstfeld and Rogoff, Ch. 2(pp. 99-113).

- Abel, Andrew B, "Consumption and Investment", Ch. 14 in B M Friedman and F H Hahn (eds.), *Handbook of Monetary Economics*, Vol II, Elsevier, 1990, pp. 753-771, 774-778.
- Hayashi, F, "Tobin's Marginal q and Average q: A Neoclassical Interpretation", *Econometrica*, January 1982, pp. 213-224.
- McKibbin, Warwick J and Eric S Siegloff, "A Note on Aggregate Investment in Australia", *The Economic Record*, 64(186), September 1988, pp. 209-215.

## Effects of Fiscal Policy (2 lectures)

Effects of fiscal policy are analysed using the intertemporal optimisation framework. Implications of overlapping generations models are compared with those of representative agent models. Models that integrate the overlapping generations and representative agent models are also investigated.

Obstfeld and Rogoff, Ch. 3(pp. 130-136, pp. 141-145, pp. 174-184, pp. 190-191).

- "Symposium on the Budget Deficit", *Journal of Economic Perspectives*, Spring 1989, pp. 17-93, (contributions by Yellen, Barro, Bernheim, Eisner, and Gramlich).
- Bohn, Henning, "Budget Balance through Revenue or Spending Adjustments?", *Journal of Monetary Economics*, 27, 1991, pp. 333-359.
- Frenkel, Jacob A and Assaf Razin, *Fiscal Policies and Growth in the World Economy*, 3rd edition, Cambridge, MA: MIT Press, 1996, Ch. 9.
- Wells, Graeme, "Fiscal Policy", Ch. 10 in Brian Silverstone, Alan Bollard, and Ralph Lattimore (eds.), *A Study of Economic Reform: The Case of New Zealand*, Amsterdam, North-Holland, 1996.
- Abel, Andrew B, "Consumption and Investment", Ch. 14 in B M Friedman and F H Hahn (eds.), *Handbook of Monetary Economics*, Vol II, Elsevier, 1990, pp. 750-753.
- Auerbach, Alan J, Jagadeesh Gokhale, and Laurence J Kotlikoff, "Generational *Accounting*: A Meaningful Way to Evaluate Fiscal Polilcy", *Journal of Economic Perspectives*, Winter 1994, pp. 73-94.

#### **Business Cycle Fluctuations** (3 lectures)

Real Business Cycle (RBC) approach to business cycle fluctuations is discussed. In this approach, business cycles are considered to be equilibrium outcomes of optimizing behavior by individual agents.

Stochastic general equilibrium models built on the foundations of intertemporally optimizing bahaviour of economic agents are used. Model parameters are typically calibrated rather than estimated. Dynamic simulation techniques are used to analyze the model.

Main ideas and tools of RBC approach are explained. Some of the criticisms on early RBC models and the recent developments in the RBC literature are discussed. Impact of RBC approach on recent developments in modeling for practical policy analysis is also discussed.

- Lucas, Robert E, "Understanding Business Cycles", in Lucas, R E, *Studies in Business-Cycle Theory*, Cambridge, MIT Press, 1981, pp. 215-239.
- Kydland, Finn E and Edward C Prescott, "Business Cycles: Real Facts and a Monetary Myth", *Federal Reserve Bank of Minneapolis Quarterly Review*, Spring 1990, pp. 3-18.
- Kim, Kunhong, Robert A Buckle and Viv B Hall, "Key Features of New Zealand Business Cycles", *The Economic Record*, 70(208), March 1994, 56-72.
- McCallum, Bennett T, "Real Business Cycle Models", Ch. 1 in Robert J Barro (ed.), *Modern Business Cycle Theory*, 1989, pp. 16-50.
- Cooley, Thomas F and Edward C Prescott, "Economic Growth and Business Cycles", Ch. 1 in Thomas F Cooley (ed.), *Frontiers of Business Cycle Research*, Princeton University Press, 1995, pp. 1-38.

Obstfeld and Rogoff, Ch. 7(pp. 496-507).

- Uhlig, Harald, "A Toolkit for Analyzing Nonlinear Dynamic Stochastic Models Easily", Ch. 3 in Ramon Marimon and Andrew Scott (ed.), *Computational Methods for the Study of Dynamic Economies*, Oxford University Press, 1999. http://www.wiwi.hu-berlin.de/wpol/html/toolkit.htm
- King, Robert G, "Quantitative Theory and Econometrics", *Federal Reserve Bank of Richmond Economic Quarterly*, 81/3, Summer 1995, pp. 53-105.
- Kim, Kunhong and Adrian R Pagan, "The Econometric Analysis of Calibrated Macroeconomic Models", in M Hashem Pesaran and M R Wickens (eds.), *Handbook of Applied Econometrics: Macroeconomics*, Oxford, Blackwell, 1995, pp. 356-390.
- Horvath, Michael, "Sectoral Shocks and Aggregate Fluctuations", *Journal of* Monetary *Economics*, 45(1), 2000, pp. 69-106.
- Carlstrom, Charles T and Timothy S Fuerst, "Agency Costs, Net Worth, and Business Cycle Fluctuations: A Computational General Equilibrium Analysis", *American Economic Review*, 87, December 1997, pp. 893-910.
- Boldrin, Michele, Lawrence J Christiano, and Jonas D M Fisher, "Habit Presistence, Asset Returns and the Business Cycle", *American Economic Review*, 91(1), March 2001, pp. 149-166.

- Blanchard, Oliver J and Danny Quah, "The Dynamic Effects of Aggregate Demand and Supply Disturbances", *American Economic Review*, 79(4), September 1989, pp. 655-673.
- Buckle, Robert A, Kunhong Kim, Heather Kirkham, Nathan McLellan, and Jared Sharma, "A Structural VAR Model of the New Zealand Business Cycles", *New Zealand Treasury Working Paper*, 02/26, 2002.

#### **Assessment Requirements**

For assessment purposes you are required to sit the final examination, and to complete homework assignments. Unlike the situation that exists in undergraduate papers, your final grade will be determined in November on the basis of your overall performance in the Honours programme. However, as a guide to the allocation of your efforts, the assessment in ECON 402 will be based on homework assignments 30% and the two-hour final examination 70%.

Series of assignments are designed to have students learn some tools for solving macroeconomic problems analytically.

In the final examination, students will be asked to answer a series of questions by writing short essays. It is designed to assess whether a student has good understanding on the modern developments in macroeconomics literature and to assess her/his ability to think critically.

#### **Communication of Additional Information**

Additional information or information on changes will be conveyed to students through emails and Blackboard.

#### **Faculty of Commerce and Administration Offices**

Railway West Wing (RWW) - FCA Student Administration Office

The Student Administration Office is located on the ground and first floors of the Railway West Wing. The ground floor counter is the first point of contact for general enquiries and FCA forms. Student Administration Advisers are available to discuss course status and give further advice about FCA qualifications.

#### Easterfield (EA) - FCA/Law Kelburn Office

The Kelburn Campus Office for the Faculties of Commerce & Administration and Law is situated in the Easterfield Building - it includes the ground floor reception desk (EA005) and offices 125a to 131 (Level 1). The office, will be open from 9:00 am to 5:00 pm during Trimester 2, offers the following:

- Duty tutors for student contact and advice.
- Information concerning administrative and academic matters.
- FCA Student Administration forms (e.g. application for academic transcripts, requests for degree audit, COP requests).
- Examinations-related information during the examination period.

#### Please note:

There will be a Student Administration Adviser, from the RWW office, based in EA005 from Monday 27 June to Friday 1 July (9:00 am to 5:00 pm) and from Monday 4 July to Friday 22 July (11:00 am to 1:00 pm).

#### **General University Policies and Statutes**

Students should familiarise themselves with the University's policies and statutes, particularly those regarding assessment and course of study requirements, and formal academic grievance procedures.

#### **Student Conduct and Staff Conduct**

The Statute on Student Conduct together with the Policy on Staff Conduct ensure that members of the University community are able to work, learn, study and participate in the academic and social aspects of the University's life in an atmosphere of safety and respect. The Statute on Student Conduct contains information on what conduct is prohibited and what steps can be taken if there is a complaint. For queries about complaint procedures under the Statute on Student Conduct, contact the Facilitator and Disputes Advisor. This Statute is available in the Faculty Student Administration Office or on the website at: www.vuw.ac.nz/policy/StudentConduct.

The policy on Staff Conduct can be found on the VUW website at: www.vuw.ac.nz/policy/StaffConduct.

#### Academic Grievances

If you have any academic problems with your course you should talk to the tutor or lecturer concerned or, if you are not satisfied with the result of that meeting, see the Head of School or the Associate Dean (Students) of your Faculty. Class representatives are available to assist you with this process. If, after trying the above channels, you are still unsatisfied, formal grievance procedures can be invoked. These are set out in the Academic Grievances Policy which is published on the VUW website:

www.vuw.ac.nz/policy/AcademicGrievances.

## Academic Integrity and Plagiarism

Academic integrity is about honesty – put simply it means **no cheating**. All members of the University community are responsible for upholding academic integrity, which means staff and students are expected to behave honestly, fairly and with respect for others at all times.

Plagiarism is a form of cheating which undermines academic integrity. Plagiarism is **prohibited** at Victoria.

The University defines plagiarism as follows:

Plagiarism is presenting someone else's work as if it were your own, whether you mean to or not.

'Someone else's work' means anything that is not your own idea, even if it is presented in your own style. It includes material from books, journals or any other printed source, the work of other students or staff, information from the Internet, software programmes and other electronic material, designs and ideas. It also includes the organization or structuring of any such material.

## Plagiarism is not worth the risk.

Any enrolled student found guilty of plagiarism will be subject to disciplinary procedures under the Statute on Student Conduct (<u>www.vuw.ac.nz/policy/studentconduct</u>) and may be penalized severely. Consequences of being found guilty of plagiarism can include:

- an oral or written warning
- suspension from class or university
- cancellation of your mark for an assessment or a fail grade for the course.

Find out more about plagiarism and how to avoid it, on the University's website at: <u>www.vuw.ac.nz/home/studying/plagiarism.html</u>.

## **Students with Disabilities**

The University has a policy of reasonable accommodation of the needs of students with disabilities. The policy aims to give students with disabilities an equal opportunity with all other students to demonstrate their abilities. If you have a disability, impairment or chronic medical condition (temporary, permanent or recurring) that may impact on your ability to participate, learn and/or achieve in lectures and tutorials or in meeting the course requirements, then please contact the Course Coordinator as early in the course as possible. Alternatively you may wish to approach a Student Adviser from Disability Support Services to confidentially discuss your individual needs and the options and support that are available. Disability Support Services are located on Level 1, Robert Stout Building, or phoning 463-6070, email: disability@vuw.ac.nz. The name of your School's Disability Liaison Person can be obtained from the Administrative Assistant or the School Prospectus.

## **Student Support**

Staff at Victoria want students' learning experiences at the University to be positive. If your academic progress is causing you concern, please contact the relevant Course Co-ordinator, or Associate Dean who will either help you directly or put you in contact with someone who can.

The Student Services Group is also available to provide a variety of support and services. Find out more at <u>www.vuw.ac.nz/st\_services/</u> or email <u>student-services@vuw.ac.nz</u>.

VUWSA employs two Education Coordinators who deal with academic problems and provide support, advice and advocacy services, as well as organising class representatives and faculty delegates. The Education Office is located on the ground floor, Student Union Building, phone 463 6983 or 463 6984, email education@vuwsa.org.nz.

#### Maori and Pacific Mentoring programme (Manaaki Pihipihinga)

This is a free programme of mentoring for Maori and Pacific students doing first year courses within the Faculty of Commerce and Administration. Weekly one hour mentoring sessions: drafting and editing assignments/discussing any questions that you might have from tutorials or lectures and going over every aspect of essay writing, either in small group sessions or on a one-to-one basis.

This includes:

- A computer suite hooked up to cyber commons for students to use to produce their assignments.
- Regular skill-based workshops with a learning adviser from Student Learning Support Services.
- Networking with other Maori and Pacific support groups throughout the university.

For more information please contact: Melissa Dunlop, Programme Coordinator Ph: 463 6015 or Email: Maori-Pacific-Mentoring@vuw.ac.nz