

PhD Macroeconomic Theory II
ECO 79250-A00 (Part II)
Winter, 2024

COURSE INFORMATION

Class schedule:	Tuesdays 2:30PM - 5:20PM In presence FSS 4014
Instructor Information:	
Name:	Yazid Dissou
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Office:	FSS 9038
Office hours:	Wednesdays: In presence; 15:00-16:00
Teaching assistant:	
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Communication preferences:	Emails

Before emailing a question, please *fully* read this syllabus and explore the associated resources. The answers to many questions can be found in this document and students may be referred to the syllabus if the answer is already available.

Please allow at least **two (2) business days** for responses to inquiries before pursuing another route of communication.

OFFICIAL COURSE DESCRIPTION

Modern dynamic stochastic general equilibrium models, such as real-business-cycle models, models of labour-market and financial frictions, and heterogeneous-agent models. Students also learn computational techniques to solve and estimate these models.

COURSE LEARNING OUTCOMES

PhD Macroeconomic Theory II is the second PhD course in macroeconomics. It deals with modern techniques used to understand economic fluctuations and labour market frictions.

This second part of the course will focus on dynamic general equilibrium models in a stochastic framework. The topics covered will include real business cycles (RBC) models without and with frictions and dynamic

stochastic general equilibrium (DSGE) models with nominal rigidities. Finally, students will be introduced to the computational techniques used to simulate these models.

TEACHING METHODS

The second part of the course is delivered in person and is structured as a weekly lecture. It will start in person on March 12^h, 2024. Course materials will be available in PDF format on Brightspace. Students are encouraged to expand their knowledge by reading the textbook and suggested journal articles. They will also be able to master the material covered in class through graded homework assignments.

PREQUISITES

Students are expected to be familiar with basic intuition in macroeconomics in addition to basic calculus and optimization techniques in dynamic settings covered at the graduate level. In particular, all students should be comfortable with the microeconomic foundations of macroeconomics covered in the previous graduate macroeconomic courses.

COURSE SCHEDULE

- **March 12, 2024: Lecture 1: RBC models I (The basic RBC model)**
- **March 19, 2024: Lecture 2: RBC models I (The basic RBC model) cont'**
- **March 19, 2024: Release of Assignment (due for March 26, 2024, at 18:00)**
- **March 26, 2024: Lecture 3: RBC models II (Extensions of the basic RBC model)**
- **April 02, 2024: Lecture 4: The Basic New-Keynesian DSGE model**

ASSESSMENT STRATEGY

The evaluation of this second half of the course will be based on one assignment and one final exam:

- Assignment **released on March 19, 2024**, and due on **March 26, 2024, at 18:00** (15.0%).
- An in-presence final exam (TBA). (35%).

ASSESSMENT POLICIES AND EXPECTATIONS

Attendance

To ensure they succeed in all courses of their program of study, students have the responsibility to participate in the various learning and assessment activities for each of their courses.

EIN (fail) Grading Policy

In all economics courses, students who fail to complete work (either a single piece of work or a combination of work) worth a total of 25% or more of the final grade will receive a grade of EIN in the course. The EIN grade is equivalent to a failure mark (F). See Regulation A-3

(<https://www.uottawa.ca/about-us/policies-regulations/academic-regulations/a-3-grading-system>) for details. Please note that a denied request for a deferral may therefore lead to failing the course.

Missed exams and requests for deferral

As per [Academic Regulation A-8](#), absence from any examination or test, or late submission of assignments must be reported by submitting the online [Declaration of Absence from an Evaluation](#) form within five (5) working days of the examination date or the assignment deadline. It is not required to attach a justification or medical certificate to the form for a first absence from an evaluation in a course. Students can request a maximum of one deferred evaluation

per course under this policy, and this evaluation must take place as soon as possible, within six (6) months of the end of the term. Evaluation for graduate students must occur as soon as possible, within three (3) months of the end of the term.

In the case of a second absence, a medical certificate or justification in terms of **exceptional personal circumstances** is required with the submission of the online form, and the academic unit and the faculty concerned reserve the right to accept or reject the reasons presented. Reasons such as travel, work and misreading of examination schedules are not accepted.

In the case of a medical certificate, the certificate must include the student's name, the date of both the absence and the return to studies and the medical consultation date. The certificate does not require mention of the medical condition. Students should not participate in oral or written examinations during the period of disability indicated on the form.

Students who defer an exam will be required to write a deferred evaluation, except where the professor offers a re-weighting scheme. (If available, such a scheme is described in this syllabus).

Deferred final examinations will take place on **Friday, May 10, 2024**.

Students should reflect deeply before requesting a deferred evaluation, since they can only receive one deferral per course. Students who are struggling to keep up with their schedule may find it worthwhile to withdraw from the course and take it again at a later date. In Winter 2024, the deadline to withdraw from this course (without financial reimbursement) is March 22nd. For further information on withdrawing from the course, consult the link <https://www.uottawa.ca/course-enrolment/withdrawing-from-a-course>.

Exam conflicts

Any conflict with a midterm exam schedule should be reported to the Professor at the beginning of the term. This request is especially applicable to the type 3 conflict (two in-class exams back-to-back) for students with special learning needs.

Any conflict with a final exam schedule should be reported to the Faculty's undergraduate office as soon as the final examination schedule is released.

Late Assignments

All assignments are to be submitted by their due date and time.

All late submissions will be immediately docked 5%, with an additional 5% for each subsequent day late to a maximum of 3 days, *including weekends*. **After 3 days all outstanding assignments will be given a zero (0%) grade.**

REQUIRED MATERIALS

No textbook will be followed exactly. Lectures will be based on journal articles, chapters from some textbooks, and handouts provided on the course website. However, the main textbook is:

- Romer, D. (2019) *Advanced Macroeconomics*, McGraw-Hill/Irwin, 5th edition.

READING LIST

Real Business Cycles Models

- Blanchard, O. J., & Kahn, C. M. (1980). The solution of linear difference models under rational expectations. *Econometrica: Journal of the Econometric Society*, 1305-1311.

- Boldrin, M., Christiano, L. J., & Fisher, J. D. (2001). Habit persistence, asset returns, and the business cycle. *American Economic Review*, 91(1), 149-166.
- Campbell, J. Y. (1994) Inspecting the Mechanism: An Analytical Approach to the Stochastic Growth Model. *Journal of Monetary Economics*, 33, 3.. 463-506
- Christiano, L. J., Eichenbaum, M., & Evans, C. L. (2005). Nominal rigidities and the dynamic effects of a shock to monetary policy. *Journal of political Economy*, 113(1), 1-45.
- Christiano, L. J., & Fitzgerald, T. J. (2020). The Business Cycle: It's Still a Puzzle. In *Handbook of Monetary Policy* (pp. 25-62). Routledge.
- Cogley, T., & Nason, J. M. (1995). Output dynamics in real-business-cycle models. *The American Economic Review*, 492-511.
- Gali, J., and P. Rabanal. "Technology shocks and aggregate fluctuations: How well does the RBC Model Fit Postwar U.S. Data?" *NBER Macroeconomics Annual* (2004).
- Fuhrer, J. C. (2000). Habit formation in consumption and its implications for monetary-policy models. *American Economic Review*, 90(3), 367-390.
- Hansen, G. D. (1985). Indivisible labor and the business cycle. *Journal of monetary Economics*, 16(3), 309-327.
- Hayashi, F. (1982). Tobin's marginal q and average q: A neoclassical interpretation. *Econometrica: Journal of the Econometric Society*, 213-224.
- King, R. G., & Rebelo, S. T. (1999). Resuscitating real business cycles. *Handbook of Macroeconomics*, 1, 927-1007.
- Klein, P. (2000). Using the generalized Schur form to solve a multivariate linear rational expectations model. *Journal of Economic Dynamics and Control*, 24(10), 1405-1423.
- Kydland F (1989). "The Role of Money in Business Cycle Model", Discussion Paper n°23, Institute for Empirical Macroeconomics.
- Kydland, F. E., & Prescott, E. C. (1982). Time to build and aggregate fluctuations. *Econometrica: Journal of the Econometric Society*, 1345-1370.
- Kydland, F. E., & Prescott, E. C. (1990). Business cycles: Real facts and a monetary myth. *Federal Reserve Bank of Minneapolis Quarterly Review*, 14(2), 3-18.
- Long, J. and C. Plosser (1983), Real Business Cycles, *Journal of Political Economy*, 39-69.
- Lucas, R. E. (1976, January). Econometric policy evaluation: A critique. In *Carnegie-Rochester conference series on public policy* (Vol. 1, No. 1, pp. 19-46).
- Lucas Jr, R. E., & Prescott, E. C. (1971). Investment under uncertainty. *Econometrica: Journal of the Econometric Society*, 659-681.
- King, R., & Rebelo, S. (2000). Resuscitating Real Business Cycles, Ch. 14 in *Handbook of Macroeconomics*, JB Taylor & M. Woodford Ed.
- Rogerson, R. (1988). Indivisible labor, lotteries and equilibrium. *Journal of Monetary Economics*, 21(1), 3-16.
- Smets, F., & Wouters, R. (2003). An estimated dynamic stochastic general equilibrium model of the euro area. *Journal of the European Economic Association*, 1(5), 1123-1175.

- Söderlind, P. (1999). Solution and estimation of RE macromodels with optimal policy. *European Economic Review*, 43(4-6), 813-823.
- Uhlig, H. (1999), “A Toolkit for Analysing Nonlinear Dynamic Stochastic Models Easily,” in *Computational Methods for the Study of Dynamic Economies*, ed. by R. Marimon, and A. Scott, pp. 30–61. Oxford University Press, London

DSGE Sticky Prices Models

- Bilts, M. and P. Klenow (2004), “Some evidence on the importance of sticky prices”, *Journal of Political Economy*, 112(5), 947-985
- Calvo, G. A. (1983). Staggered prices in a utility-maximizing framework. *Journal of Monetary Economics*, 12(3), 383-398.
- Cho, Seonghoon and Antonio Moreno (2006), “A Small-Sample Study of the New-Keynesian Macro Model”, *Journal of Money, Credit and Banking*, 38(6), 1461-1481
- Christiano, L. J., M. Eichenbaum, and C. L. Evans (2005), “Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy,” *Journal of Political Economy*, 113(1), 1–45.
- Clarida, R., J. Gali and M. Gertler (2000), “Monetary Policy Rules and Macroeconomic Stability: Evidence and Some Theory”, *The Quarterly Journal of Economics*, 115(1), 147-180.
- Erceg, C. J., Henderson, D. W. and A. T. Levin (2000), “Optimal monetary policy with staggered wage and price contracts”, *Journal of Monetary Economics*, 46(2), 281-313
- Fuhrer, Jeffrey, C. (2000), "Habit Formation in Consumption and Its Implications for Monetary-Policy Models", *American Economic Review*, 90 (3): 367-390
- Galí, J. (2015), *Monetary Policy, Inflation, and the Business Cycle* (2nd ed.). Princeton University Press, Princeton
- Mankiw, N. G., & Reis, R. (2002). Sticky information versus sticky prices: a proposal to replace the New Keynesian Phillips curve. *The Quarterly Journal of Economics*, 117(4), 1295-1328
- Rotemberg, J. J., & Woodford, M. (1997). An optimization-based econometric framework for the evaluation of monetary policy. *NBER Macroeconomics Annual*, 12, 297-346.
- Yun, T. (1996). Nominal price rigidity, money supply endogeneity, and business cycles. *Journal of Monetary Economics*, 37(2), 345-370.

INDIGENOUS AFFIRMATION

ANISHINÀBE

Ni manàdjiyànànig Màmìwininì Anishinàbeg, ogor kà nàgadawàbandadjig iyo akì eko weshkad. Ako nongom ega wikàd kì mìgiwewàdj.

Ni manàdjiyànànig kakina Anishinàbeg ondaje kaye ogor kakina eniyagizidjig enigokamigàg Kanadàng eji ondàpinangig endàwàdjìn Odàwàng.

Ninisidawinawànànig kenawendamòdjig kije kikenindamàwin; weshkinìgidjig kaye kejeyàdizidjig.

Nigijeweninmànànig ogor kà nìgànì sòngideyedjig; weshkad, nongom; kaye àyànikàdj.

[Listen to the audio file](#)

ENGLISH

We pay respect to the Algonquin people, who are the traditional guardians of this land. We acknowledge their longstanding relationship with this territory, which remains unceded.

We pay respect to all Indigenous people in this region, from all nations across Canada, who call Ottawa home.

We acknowledge the traditional knowledge keepers, both young and old.

And we honour their courageous leaders: past, present, and future.

INTELLECTUAL PROPERTY RIGHTS OF COURSE CONTENT

If you would like clarification regarding the intellectual property right of course content, please visit the [Copyright Office webpage](#) or consult your professor.

INSTITUTIONAL POLICIES AND ACADEMIC REGULATIONS

It is very important to know the institutional policies and academic regulations associated with your academic success. This information is available on the Faculty of Social Sciences website, on the [Student Hub webpage](#) under the “Institutional policies and academic regulations” tab.

ACADEMIC FRAUD REGULATIONS

If you would like clarification regarding academic integrity and misconduct, please consult [Academic Regulation A-4](#) or consult your professor.

REGULATIONS ON BILINGUALISM AT THE UNIVERSITY OF OTTAWA

Per [Academic Regulation A-1](#) : «Except in programs and courses for which language is a requirement, all students have the right to produce their written work and to answer examination questions in the official language of their choice, regardless of the course’s language of instruction.»

Useful student support links

[Student Health and Wellness Centre](#)

[Academic support](#)