

CARLETON UNIVERSITY
Department of Economics

ECON 5606 W
Foundations of Monetary Economics
2022 Winter

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Lectures: Tuesday, 11:35 am – 2:25 pm Location RB 3201
Course Website: [Brightspace](#)

Course Description

This course introduces students to how macroeconomics uses micro-founded theoretical models to study the functions and role of money in the macro-economy, focussing primarily on modern intertemporal general equilibrium models. Using these models, we will explore questions such as why intrinsically worthless pieces of paper can have positive value in equilibrium, why agents hold money over time when other assets provide a higher return, and how money can affect the real economy in the short-run.

Required Text

Carl E. Walsh, *Monetary Theory and Policy*, fourth edition, MIT Press 2017.

Supplementary Resources

- Bruce Champ and Scott Freeman, *Modeling Monetary Economics*, Cambridge, 2001/2011. Note: the 2001 version is available as an Electronic Resource from the Carleton library. References to sections of this text in the outline below pertain to the 2001 version.
- Jordi Gali, *Monetary Policy, Inflation and the Business Cycle*, second edition, Princeton University Press, 2015
- David Romer, *Advanced Macroeconomics*, McGraw-Hill, 2012
- Olivier Jean Blanchard and Stanley Fischer, *Lecture on Macroeconomics*, MIT Press, 1989

- Gregor Smith notes <http://qed.econ.queensu.ca/pub/faculty/smithgw/econ815A/>

Evaluation

Each student's grade will be calculated as follows:

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|---|-----------------------------|
| • Three written assignments | 7.5% (2.5% each assignment) |
| • Midterm Exam 1 | 20% |
| • Midterm Exam 2 | 25% |
| • Literature Review/Research paper proposal | 2.5% |
| • Literature Review/Research paper | 35% |
| • Literature review presentation | 10% |

Assignments

The tentative assignment due-dates are as follows:

- Assignment 1 due: **Tuesday, February 8**
- Assignment 2 due: **Tuesday, February 22**
- Assignment 3 due: **Tuesday, March 22**

The assignments will typically consist of short-answer questions and mathematical derivations/calculations. While students are permitted to discuss the assignment material with classmates, each student must ensure that their submitted work is their own. Please see the statement on plagiarism below.

Assignments must be submitted by 11:59 pm on the due date as a soft-copy file upload **within Brightspace** (ideally as a pdf). Students who complete their assignment in hard-copy format (ie paper) should scan their hard-copy assignment and upload the soft-copy scan of the file (there are number free scanning-apps for smartphones that will create pdf files from scans, such as "Genius Scan"). Late assignments will receive a mark of zero.

I will post the assignments approximately two weeks in advance, and therefore **only in rare cases** where a student can document a compelling reason for a **prolonged** absence will students be excused from handing in an assignment. In such a rare case, the weight of the assignment will be transferred to the final exam.

The assignments *may* be marked for completeness only.

Literature Review/Research Paper: Proposal, Paper & Presentation

Students will write a literature review paper of academic journal publications/working papers on a topic of interest within monetary economics. The paper should be approximately 8-10 pages double-spaced and reference at least 10 articles. Additionally, PhD students should include an additional 5-8 pages

outlining one or a combination of the following four components: (i) a detailed discussion of opportunities for new research within the topic area of their literature review, including a high-level sketch of a research plan, (ii) an analytical analysis of a theoretical model from the chosen literature (or modification thereof) to explore an economic question within the topic area, (iii) a computer simulation of a theoretical model from the chosen literature (or modification thereof) to explore an economic question within the topic area; (iv) an empirical analysis of an economic question within the topic area.

A paper proposal is due Tuesday, **March 15, 2022 (but can be submitted earlier)**. The proposal will consist of approximately one-page indicating a topic of interest, expected scope/breadth of the review, and for PhD students, a high-level indication of the research extension (ie components (i)-(iv) above). The final paper is due **Tuesday, April 12, 2022**. In addition, students will present a 10-15 min overview of their literature review to the class over last couple of classes (exact timing depends on number of students).

In-class exams

There will be two in-class midterm exams. The exams will take place during regular class time, tentatively scheduled for **Tuesday, March 1, 2022 and Tuesday, March 29, 2022 respectively**. Students who can document a compelling reason for missing an exam will be excused and the weight of the exam will be automatically added to a combination of the other exam and the final paper. There will be no deferred exams. Necessary documentation includes a doctor's note or a police report. Please note that the documentation provided by students may be subject to verification.

Course Outline and Schedule

The outline below lists the topics that we will cover, and the related reading. Where there are exclusions to the readings, I will note them during the term in Brightspace.

1. Introduction
 - Course intro and objectives
 - A P.O.W. example monetary economy
 - *Radford, R.A., "The economic organisation of a P.O.W. camp", *Economica*, 1945.
2. Empirical evidence
 - Overview of evidence on money, prices and output
 - *Walsh Ch.1
 - Leeper, E.M., C.A. Sims and T. Zha, "What does monetary policy do?", 1996
 - Christiano, L.J., M. Eichenbaum and C. Evans, "Monetary Policy Shocks: what have we learned and to what end?", *Handbook of Macroeconomics*, 1999
3. Money in an overlapping generations model
 - Independent review: 2-period model economies
 - *Smith notes, Chapter 2, Section (a), (b) and (c)

- A simple OLG model of money
 - *Champ and Freeman Ch.1
 - Blanchard and Fischer Ch.4. Sec. 4.1
 - Barter and commodity money
 - Champ and Freeman Ch.2
 - Inflation
 - Champ and Freeman Ch.3
 - Blanchard and Fischer Ch.4. Sec. 4.1
 - Money and other assets
 - Champ and Freeman Ch.6
 - Blanchard and Fischer Ch.4. Sec. 4.1
4. Search
- Search models of money
 - Walsh Ch.3
 - Kiyotaki, N. and R. Wright, "On money as a medium of exchange", *Journal of Political Economy*, 1989.
 - Kiyotaki, N. and R. Wright, "A search-theoretic Approach to Monetary Economics", *American Economic Review*, 1993.
 - Trejos, A. and R. Wright, "Search, bargaining, money and prices", *Journal of Political Economy*, 1995.
 - Lagos, R. and R. Wright, "A unified framework for Monetary Theory and Policy Analysis", *Journal of Political Economy*, 2005.
5. Flexible price dynamic GE models with model
- Money in the utility function
 - Aside: Neoclassical growth model and dynamic optimization
 - *Smith notes, Chapter 5 Section (a)
 - Aside: The Real Business Cycle Model
 - *Smith notes, Chapter 5 Section (b)
 - Romer Ch.5
 - Money in the utility function in dynamic GE
 - Walsh Ch.2
 - Sidrauski, M., "Rational Choice and Patterns of Growth in a Monetary Economy", *The American Economic Review*, 1967.
 - Transaction costs
 - Transaction cost GE models
 - *Walsh Ch.3
 - Cash-in-advance
 - Cash-in-advance in dynamic GE
 - Walsh Ch.3

- Clower, R., “A reconsideration of the microfoundations of monetary theory”, *Western Economic Journal*, 1967
 - Cooley, T. and G. Hansen, “The inflation tax in a real business cycle model”, *American Economic Review*, 1989
6. Fiscal theory of the price level
 - Various sources
 7. Money and output in the short-run: nominal rigidities
 - Exogenous nominal rigidity
 - Romer Ch.6 Sections 6.1 and 6.2
 - Micro-foundations of nominal rigidities
 - Walsh Ch.6
 - New Keynesian models and monetary policy
 - Walsh Chapter 8
 8. Money and output in the short-run: real rigidities
 - Lucas surprise model
 - *Walsh Ch.5
 - Romer Ch.6 Section 6.9
 - Lucas, R.E. Jr., “Expectations and the Neutrality of Money”, *Journal of Economic Theory*, 1972.
 - Limited participation
 - Christiano, L.J., “Modelling the liquidity effect of a money shock”, *Federal Reserve Bank of Minneapolis Quarterly Review*, 1991.
 - Fuerst, T.S., “Liquidity, loanable funds, and real activity”, *Journal of Monetary Economics*, 1992.
 - Lucas, R.E. Jr., “Liquidity and interest rates”, *Journal of Economic Theory*, 1990.

*Please note that I reserve the right to make modifications to the list of content as the term proceeds. If I make a modification, I will provide advance warning through Brightspace.

Plagiarism

Please be aware that plagiarism is serious offence at Carleton and should be recognized and avoided.

For information on how to do so, please see “Academic Integrity and Offenses of Conduct” at: <https://carleton.ca/economics/courses/writing-preliminaries/academic-integrity-and-offenses-of-conduct/>

Academic Accommodation

You may need special arrangements to meet your academic obligations during the term. For an accommodation request the processes are as follows:

Pregnancy obligation:

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the [Equity Services website](#)

Religious obligation:

Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, visit the [Equity Services website](#).

Academic Accommodations for Students with Disabilities:

If you have a documented disability requiring academic accommodations in this course, please contact the Paul Menton Centre for Students with Disabilities (PMC) at 613-520-6608 or pmc@carleton.ca for a formal evaluation or contact your PMC coordinator to send your instructor your Letter of Accommodation at the beginning of the term. You must also contact the PMC no later than two weeks before the first in-class scheduled test or exam requiring accommodation (if applicable). After requesting accommodation from PMC, meet with your instructor as soon as possible to ensure accommodation arrangements are made. For more details, visit the [Paul Menton Centre website](#). You can visit the Equity Services website to view the policies and to obtain more detailed information on academic accommodation at www.carleton.ca/equity/accommodation.

Survivors of Sexual Violence:

As a community, Carleton University is committed to maintaining a positive learning, working and living environment where sexual violence will not be tolerated, and where survivors are supported through academic accommodations as per Carleton's Sexual Violence Policy. For more information about the services available at the university and to obtain information about sexual violence and/or support, visit: carleton.ca/sexual-violence-support

Accommodation for Student Activities:

Carleton University recognizes the substantial benefits, both to the individual student and for the university, that result from a student participating in activities beyond the classroom experience. Reasonable accommodation must be provided to students who compete or perform at the national or international level. Please contact your instructor with any requests for academic accommodation during the first two weeks of class, or as soon as possible after the need for accommodation is known to exist. For more details, see [the policy](#).