

**University of Waterloo**  
**Department of Economics**  
**Econ 406**  
**Money and Banking 2**  
**Winter 2018**  
**10:00-11:20 pm, TuTh, AL 105**

### **Instructor Information**

Instructor: Jean-Paul Lam  
Office: HH220  
Office Phone: 519-888-4567 x33091  
Office Hours: Wed 11:00-12:30 pm or by appointment  
Email: jplam@uwaterloo.ca  
Teaching assistant : TBA

### **Course Description**

This course will cover various topics on money, monetary economics, monetary policy, credit markets, banking and financial intermediation. Topics include vector autoregressions, price rigidities, targeting regimes, liquidity traps, zero lower bound, rules versus discretion, credit markets, credit rationing and bank runs. Half of the course will be devoted to the New Keynesian model and issues related to this framework. The rest of the course will cover topics related to VARs, credit markets, banking and financial intermediation.

### **Readings Available on LEARN**

I will make copies of my lecture notes available on UW-LEARN. In addition to the lecture notes and book chapters, there are a number of required readings for this class. Most of the papers are available online. Please let me know if you cannot find a particular paper.

### **Textbooks**

Below are the textbooks that I will use for this course. However, I recommend buying only the textbook by Carl Walsh.

- Walsh, Carl E., *Monetary Theory and Policy*, 4th edition, Cambridge: MIT (third edition is also good) Press, 2017. [CW]
- Woodford, Michael., *Interest & Prices*, Princeton University Press, 2003. (MW)

- Useful websites: Bank of Canada, Federal Reserve System, Bank of England, especially the working papers, the NBER and CEPR.

## Evaluation

4 assignments worth 40 percent of your total marks. No late assignments allowed. If you do not hand in your assignment by the deadline, you will receive a mark of zero.

Three midterms worth 60 percent of your total marks. Midterm 1 will be worth 15%, Midterm 2 is worth 20% and Midterm 3 is worth 25%.

Midterm 1 is on February 8<sup>th</sup>, Midterm 2 is on March 6<sup>th</sup> and Midterm 3 is on April 3<sup>rd</sup>.

## Lecture Topics and Readings

Lecture notes and readings will be posted before each class on UW LEARN (<https://learn.uwaterloo.ca>). You are required to read ahead all the lecture notes and required materials. It will allow you to make the most of the lectures. I also strongly encourage you to ask questions in class. Below is a list of topics I will cover in class and the approximate time I will devote to each.

### 1 Empirical Evidence on Money and Output

- Money neutrality in the long-run
- Correlation: money, output and prices in the short-run

#### Readings

Walsh, Ch 1

### 2 General Equilibrium Models of Money and Optimal Inflation

- Money in the utility
- Cash in advance
- Liquidity preference

#### Readings

- CW, Chapter 2, Chapter 3, sections 3.3 and 3.6, Chapter 5, section 5.3
- Cooley, Thomas F., and Gary D. Hansen. 1995. "Money and the Business Cycle," in Cooley, Thomas F. (ed.), *Frontiers of Business Cycle Research*, Princeton: Princeton University Press 2

### 3 **New Keynesian Models and Optimal Monetary Policy**

- Evidence on price stickiness
- The New Keynesian model
- Optimal policy under commitment and discretion

#### **Readings**

- CW chapter 8
- Clarida, R., J. Galí and M. Gertler. 1999. "The Science of Monetary-Policy: A New Keynesian Perspective." *Journal of Economic Literature*.
- MW chapter 3

### 4 **Monetary Policy Rules**

- Taylor Principle
- Liquidity trap and the ZLB

#### **Readings**

- CW Chapter 11, sections 11.1-11.4.
- MW Chapter 2, p 85—102.
- Clarida, Richard, Jordi Galí, and Mark Gertler. 2000. "Monetary Policy Rules and Macroeconomic Stability: Evidence and Some Theory," *Quarterly Journal of Economics* 115: 147—180.

### 5 **Financial Frictions and Credit Markets**

- Asymmetric information, moral hazard and adverse selection
- Credit rationing
- Credit cycles and fluctuations
- Financial accelerator

#### **Readings:**

- Walsh, Chapter 10, sections 10.6 and 10.7
- Bernanke, B.S., Gertler, M., and S. Gilchrist. 1999. "The Financial Accelerator in a Quantitative Business Cycle Framework," in John B. Taylor and Michael Woodford (eds.), *Handbook of Macroeconomics*, Amsterdam: North-Holland and NBER Working Paper, No. 6455.
- Kiyotaki, N., and J. Moore. 1997. "Credit Cycles," *Journal of Political Economy*, 105:2,

211–248.

- Stiglitz, J.E., and A. Weiss. 1981. “Credit Rationing in Markets with Imperfect Information,” *American Economic Review*, 71:3, 393–410.

## 6 Financial Intermediation and Banking

- Financial intermediation
- Bank runs

### Readings:

- Diamond, D.W. 2007. “Banks and Liquidity Creation: A Simple Exposition of the Diamond- Dybvig Model,” *FRB Richmond Economic Quarterly*. 93:2, 189-200.

## 7 Evidence from VARs

- Short and long-run identification
- Monetary policy shock
- Credit shock

## Software

I will use Matlab for this course (and sometimes EVIEWS). Matlab is installed on all computers on campus. Alternatively, you can buy your own copy of the student version of Matlab (You will need the econometrics and financial toolboxes also)

A good place to start learning Matlab is the Mathworks website where there are plenty of examples and a tutorial. Regarding Eviews, there is a free student version and that should be enough for this course

To solve and simulate DSGE models, I will use DYNARE and/or IRIS. Dynare and IRIS are free toolboxes. On their respective website, there is information on how to install both software within Matlab. You can also download the manuals for Dynare and IRIS. You will have to learn how to program in Matlab.

## Policy on Missed Tests and Assignments and Late Work

Assignments have to be handed on time. If you miss the deadline, you will receive a mark of zero. No exceptions are allowed. No make-up midterms or assignments will be provided. Students who do not have a relevant medical certificate will receive a mark of zero on any missed midterm or assignment. If you who miss one midterm and have a relevant medical certificate, or medical certificates, the weight of the missed midterm will be automatically transferred to the highest weighted midterm that you have written. You NEED to write at least two midterms to PASS the course.

## **Policy of Remarking Tests**

If you want me to remark your midterm or assignment because you suspect a mistake on the part of the TA, all regrade requests must be submitted to me within one week of receiving the grade in question. In your request, you must clearly indicate the reasons why you want your midterm or your assignment to be regraded. Note that if you want your midterm and assignment re-graded, I will remark the entire piece of work. Your grade may go up, down or stay the same as a result of this.

## **Information on Plagiarism Detection**

I do encourage collaborations on assignment. However, each student must submit her/his own assignment. No photocopies are allowed. If you are working with other people, you must clearly indicate at the top of your assignment the names of the persons with whom you have collaborated. As there is no paper requirement for this course, I will not use the TurnItIn software.

## **Electronic Device Policy**

Students are allowed to use their laptops during class to take notes, view the lecture notes or online readings. No other use of the laptop is allowed. When entering the classroom, you should turn off your cell phone.

## **Attendance Policy**

Class attendance is compulsory for this course.

## **Note on the scheduling of midterms and religious holidays**

If a midterm falls on the day of a religious holiday that is not observed by the university and you anticipate this to be a problem, you must consult with the associate dean of the faculty of Arts regarding other arrangements. You have 1 week after the announcement of the date of the midterm/exam to make a request of rescheduling based on these grounds (i.e. you have one week after the first class for midterms). This is the University's policy.

## **Economics Department Deferred Final Exam Policy**

Deferred Final Exam Policy found at <https://uwaterloo.ca/economics/undergraduate/resources-andpolicies/deferred-final-exam-policy>

## **Cross-listed course**

Please note that a cross-listed course will count in all respective averages no matter under which rubric it has been taken. For example, a PHIL/PSCI cross-list will count in a Philosophy major average, even if the course was taken under the Political Science rubric.

## **Academic Integrity**

In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. See the [UWaterloo Academic Integrity Webpage](#) and the [Arts Academic Integrity](#) webpage for more information.

## **Grievance**

A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read [Policy 70, Student Petitions and Grievances, Section 4](#). When in doubt please be certain to contact the department's administrative assistant who will provide further assistance.

## **Discipline**

A student is expected to know what constitutes academic integrity to avoid committing academic offenses and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course professor, academic advisor, or the undergraduate associate dean. For information on categories of offenses and types of penalties, students should refer to [Policy 71, Student Discipline](#). For typical penalties check the [Guidelines for the Assessment of Penalties](#).

## **Appeals**

A decision made or penalty imposed under Policy 70, Student Petitions and Grievances (other than a petition) or Policy 71, Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 - Student Appeals.

## Accommodation for Students with Disabilities

Note for students with disabilities: The [AccessAbility Services office](#), located on the first floor of the Needles Hall extension (1401), collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the AS office at the beginning of each academic term.

## Mental Health Support

All of us need a support system. The faculty and staff in Arts encourage students to seek out mental health supports if they are needed.

### On Campus

- Counselling Services: <mailto:counselling.services@uwaterloo.ca>/ 519-888-4567 ext. 32655
- [MATES](#): one-to-one peer support program offered by Federation of Students (FEDS) and Counselling Services
- Health Services Emergency service: located across the creek from Student Life Centre

### Off campus, 24/7

- [Good2Talk](#): Free confidential help line for post-secondary students. Phone: 1- 866-925-5454
- Grand River Hospital: Emergency care for mental health crisis. Phone: 519- 749-433 ext. 6880
- [Here 24/7](#): Mental Health and Crisis Service Team. Phone: 1-844-437-3247
- [OK2BME](#): set of support services for lesbian, gay, bisexual, transgender or questioning teens in Waterloo. Phone: 519-884-0000 extension 213

Full details can be found online at the Faculty of ARTS [website](#)

Download [UWaterloo and regional mental health resources \(PDF\)](#)

Download the [WatSafe](#) app to your phone to quickly access mental health support information

## Territorial Acknowledgement

We acknowledge that we are living and working on the traditional territory of the Attawandaron (also known as Neutral), Anishinaabe and Haudenosaunee peoples. The University of Waterloo is situated on the Haldimand Tract, the land promised to the Six Nations that includes six miles on each side of the Grand River.