University of Notre Dame du Lac
Monetary Theory and Policy
ECON 40364-01
Spring 2025

Location:
Bond Hall 220D

Times:
Mondays and Wednesdays, 2-3:15 pm

Instructor:
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Personal website
Course website on Canvas
Office hours: Tuesdays, 5:00 pm – 6:15 pm, JNH 3020 or JNH 3005 (classroom)
Fridays, 1:15 pm – 2:15 pm, JNH 3020 or JNH 3005 (classroom)

Textbooks:
Mishkin: *The Economics of Money, Banking, and Financial Markets*. 13th edition
Garin, Lester, and Sims: *Intermediate Macroeconomics*. Available online

Course Overview:
This course will address a number of interrelated questions in macroeconomics and monetary policy. What is money? What determines the prices of the goods and services we buy? Why have we experienced persistent inflation since the early 20th century? What is a central bank? What are the important features of central bank function and design? What do we mean by liquidity, and why is it important? What is an interest rate, and why are there so many interest rates? How do central banks affect interest rates, and how do interest rates affect the economy? What is a yield curve? What should central banks do during a recession? What happens during a financial crisis? How should central banks react to financial crises? What has been going on with monetary policy in response to the COVID-19 crisis and its aftermath? What are the implications of the massive increases in central bank balance sheets in the last 10-12 years? What is going on with inflation right now?

This course is focused on monetary theory and how monetary policy interacts with the aggregate economy. It aims to provide students with some tentative answers to the questions listed in the paragraph above and a set of tools to evaluate these and similar questions in the future. The course builds on the basic tools of micro and macroeconomics. It is assumed that students have taken both intermediate micro and macro and have a working grasp of calculus.

The course will be divided into roughly three parts. In the first part of the course, we will study the origins and role of money; the meaning of liquidity; the factors determining money demand and supply, the aggregate price level, and nominal interest rates; and an aggregate demand-supply model

of the economy which one can use to study what we will refer to as "conventional" monetary policy. By "conventional" monetary policy, we mean the adjustment of short-term nominal interest rates to hit targets for inflation and some measure of economic activity. Much of the first part of the course ought to be at least somewhat familiar. The first part of the course will conclude with brief discussions about central bank mandates and design, the time inconsistency problem, recent interest in so-called "modern monetary theory," and a brief discussion of cryptocurrency and central bank digital currencies.

The second and third parts of the course build on the first. The second part of the course focuses on asset pricing, the risk and term structure of interest rates, the stock market, financial structure, and banking. For much of this part of the course, we will not talk explicitly about money per se, but financial markets are of great interest to monetary policymakers. The third part of the course studies financial crises and monetary policy responses thereto. We will compare and contrast the Great Depression and the Great Recession. We will use tools learned in the first and second parts of the course to study and analyze "unconventional" monetary policy, including tools such as large-scale asset purchases, quantitative easing, exotic lending facilities, forward guidance, and negative interest rates. We will conclude by discussing the monetary policy responses to the COVID-19 crisis.

Textbook and Readings:
There are two required texts for this course. The first is by Frederic Mishkin, *The Economics of Money, Banking, and Financial Markets*, 13th edition. This book is often assigned in Money, Credit, and Banking courses but also works well for monetary theory and policy courses. The author of the book was a Governor of the Federal Reserve Board in the lead-up to, and early stages of, the financial crisis of 2007-2009, so he brings a solid perspective. We will follow some parts of the book more closely than others, will not cover all chapters, and will not progress through the book in a linear fashion. The most recent version of the text is the 13th edition, and I will make assignments based on that edition. If you find an earlier edition of the book and want to use it, that would probably be fine.

Some of the material presented in class will be at a higher level than that contained in Mishkin's book. To assist with this material, I will also assign a few chapters from my textbook, which you can access online. I abbreviate the title of the book as "GLS." You will only be responsible for material in the texts that is discussed in class.

There will be other outside readings assigned throughout the semester. These include academic journal articles, book excerpts, blog posts, or shorter articles in popular periodicals. These readings are listed on the course outline with hyperlinks. pdf copies of these readings are also provided on the course webpage. As the outside readings are all related to the course lectures, for exams you will be responsible for the material contained in assigned outside readings, regardless of whether we explicitly discuss these readings in class.

Course Website:
I will maintain an active course website online through Canvas. On the website you can find the syllabus, lecture slides, problem sets and solutions, exam solutions, and outside assigned readings. I will also use the Canvas site as a gradebook so that you may follow your progress over the course of the semester.

Evaluation:

Evaluation for the course will be based on graded problem sets, quizzes, and exams. There will be five assigned problem sets due roughly every two to three weeks throughout the semester. Problem sets can be worked on in groups but must be turned in individually. Problem set questions may include questions that ask you to download data, produce graphs, or conduct computations in Microsoft Excel. I assume that you are familiar with Excel. If not, the internet is a good resource. Hard copies of problem sets will be due at the beginning of the class day on which they are due.

The course will also feature online quizzes, occurring at a more or less weekly frequency. These quizzes will be short and feature only multiple-choice and/or true-false questions. You must complete quizzes by 5 pm on the due date. For the most part, quizzes will go live on Canvas on the Thursday before they are due at 5 pm. You will have a 24-hour window to complete each quiz (i.e., until Friday at 5 pm). The quizzes are open-book, but you will only have ten minutes to complete them once you have begun. The quizzes will focus on topics covered in the lectures from that week and will also focus on supplemental readings that may or may not have been explicitly discussed in class that week. There will be 11 quizzes over the semester. You will be able to drop one quiz when calculating your course grade.

There will be two midterm exams and a comprehensive final exam. The first midterm will be on February 19 in class. The second midterm will be on April 2 in class. The final exam will take place on the date and time assigned by the Registrar (Wednesday, May 7, 10:30-12:30). The final will be cumulative.

Your final grade will be calculated according to the following breakdown:

- Problem sets: 20 percent (five percent each)
- Quizzes: 20 percent (drop one; two percent per remaining 10 quizzes)
- Midterm 1: 20 percent
- Midterm 2: 20 percent
- Final exam: 20 percent

All assignments will be graded out of 100 points. I will be using a conventional, high school level 0-100 grading scale. The mapping between points and letter grades can be found below, where g denotes numeric points:

A	$g \geq 94$
A-	$90 \leq g < 94$
B+	$87 \leq g < 90$
B	$83 \leq g < 87$
B-	$80 \leq g < 83$
C+	$77 \leq g < 80$
C	$73 \leq g < 77$
C-	$70 \leq g < 73$
D	$65 \leq g < 70$
F	$g < 65$

I may curve scores on exams. If I do so, I will give students the formula for converting raw scores into curved scores (the curve may be linear or non-linear). I also may not curve scores, depending

on my assessment of the absolute difficulty of the exam or assignment and the overall class performance. I sometimes take the liberty of bumping people up from one grade category to another at the end of the semester (e.g. from a B+ to an A-). Factors influencing bumps include being close to the cutoff line, improvement over the semester, or other extenuating circumstances. Bumps can only help you – your final letter grade will be no lower than the mapping described above.

There is no class participation grade or formal attendance policy. You are adults and are responsible for managing your own time. While there is no explicit attendance policy, I am loosely aware of attendance patterns. Keep in mind that as an instructor, I will be more willing to work with a student and/or show leniency when I sense that the student is putting forth a solid effort. You are welcome to alert me if you have to miss class for any reason, though this is not necessary. Some of you are seniors looking for jobs, some may be athletes, and others may be involved in university clubs or activities. Many of you may well have commitments that force you to miss class from time to time, and this is understood. But it should also be understood that you are responsible for any material presented in class when you are absent. Although I am happy to work with you outside of class, it is not my responsibility to repeat lectures you had (or chose) to miss.

If you have to miss an exam for any reason, you must notify me at least one week in advance. If the conflict is legitimate (e.g., a university-sponsored event), we can jointly set alternative arrangements. Failure to inform me of any potential conflict at least a week in advance may result in no alternative arrangements being available.

Office Hours and Out of Class Meeting Times:
My office hours will be listed at the times given on the first page. I have reserved JNH 3005 (the small classroom on the third floor of JNH across from the restrooms) for office hour times. If more than one or two people show up for office hours, I will move down to the classroom. Otherwise I will be in my office, JNH 3020. There may be weeks where I need to reschedule office hours.

The best way to contact me is via email. I will do my best to respond promptly but keep in mind that I sleep more or less normal hours, unlike many of you. Middle of the night emails will not be responded to until the next day. To ensure a prompt response, please put "Monetary Theory" or something similar in the subject line of any email.

Prayer before Class:
I will open each class with a free-form prayer asking God to guide us as we seek to better understand the world around us. My Catholic faith is important to me, and at a Catholic university I think it is crucial that we ask for God's assistance as we engage in important endeavors. You are welcome to participate in the prayer however you best see fit. If you are not the praying kind, that is fine and I want you to feel welcome, but please be respectful.

If you would like to add a prayer intention, please email me your intention before class and I will include it in my opening prayer. Please limit yourself to non-frivolous intentions. While former head football coach Gerry Faust famously used to ask his players to recite a Hail Mary before important plays, and while I (and I am sure some of you) are guilty of this practice as well, I will not entertain intentions for athletic victories in the opening class prayer.

Rough Course Outline with Readings (tentative and subject to revision):

1) **Traditional Monetary Theory and Conventional Monetary Policy**
   a) What is money (Friedman Ch. 1, first part of Ch. 2 up until "The Supply of Money")
   b) Money supply (Friedman Ch. 2, section on "The Supply of Money;" Mishkin Ch. 3, Ch. 14, Ch. 15 sections 15.1 and 15.2; GLS Ch. 32)
   c) Money demand (Friedman Ch. 2, part on "The Demand for Money;" Mishkin Ch. 19; the rest of Friedman Ch. 2)
   d) Macro model with monetary policy (Mishkin Ch. 19, Ch. 20, Ch. 21, Ch. 22, Ch. 23
   e) Conventional monetary policy and the macroeconomy (Mishkin Ch. 20, Ch. 21, Ch. 23 sections 23.1, 23.2, 23.3, an 23.4)
   f) The Federal Reserve (Mishkin Ch. 13); central bank design, mandates, transparency, and accountability (Crowe and Meade "The Evolution of Central Bank Governance Around the World"); modern monetary theory (Mankiw "A Skeptic's Guide to Modern Monetary Theory"); cryptocurrency and central bank digital currencies (Cechetti and Schoenholtz "Bitcoin and Fundamentals"; Royal and Voigt "What is Cryptocurrency?"; Black "Who Needs Cryptocurrency FedCoin When We Already Have a National Digital Currency?"; Brainard "Private Money and Central Bank Money as Payments Go Digital: An Update on CBDCs"; Waller "CBDC: A Solution in Search of a Problem?"; Cechetti and Schoenholtz "Central Bank Digital Currency: The Battle for the Soul of the Financial System")

2) **Topics in Finance, Financial Markets, and Banking**
   a) Bond pricing and the term and risk structure of interest rates (Mishkin Ch. 4, Ch. 5, Ch. 6; GLS Ch. 34)
   b) Stock market (Mishkin Ch. 7; GLS Ch. 35)
   c) Adverse selection, moral hazard, and financial structure (Mishkin Ch. 8; *Economist* "Secrets and Agents")
   d) Banking (Mishkin Ch. 9; GLS Ch. 31; GLS Ch. 33; Diamond "Banks and Liquidity Creation")

3) **Crises and Unconventional Monetary Policy**
   a) Financial crises (Mishkin Ch. 12, sections 12.1, 12.2, and 12.3); Great Depression and Great Recession (Bernanke "On Milton Friedman's 90th Birthday"; Wheelock "Lessons Learned"; Gorton "Questions and Answers"; Mishkin "Over the Cliff")
   b) Unconventional monetary policy and mapping crises and policy responses into the AD-AS model (Mishkin Ch. 15, section 15.3; Mishkin Ch. 23, section 23.5; Bernanke "Targeting Long Rates")
   c) Financial and banking regulation (Mishkin Ch. 10; Mishkin Ch. 12, sections 12.4 and 12.5; Gorton and Metrick "The Federal Reserve and Panic Prevention"; Hanson, Kashyap, and Stein "A Macroprudential Approach")
   d) The Fed and the COVID-19 Crisis (Cechetti and Schoenholtz "Contagion: Bank Runs and COVID-19"; Cechetti and Schoenholtz "COVID-19: What Can Monetary Policy Do?"; Cechetti and Schoenholtz "The Fed Goes to War: Part 1"; Cechetti and Schoenholtz "The Fed Goes to War: Part 2"; Cechetti and Schoenholtz "The Fed Goes to War: Part 3"; Cechetti and Schoenholtz "Fed's Big Stick Lets it Speak Powerfully"; Cechetti and Schoenholtz "Inflation Policy"; Cechetti and Schoenholtz "From Inflation Targeting to Employment Targeting?"; Ihrig and Waller, "The Federal Reserve's Responses to the Post-COVID Period of High Inflation")

Assignments, Due Dates, and Other Important Dates:

- Online Quizzes: available Thursday 5 pm to Friday 5 pm on Canvas. Dates below are Fridays:
    - Quiz #1: January 17
    - Quiz #2: January 24
    - Quiz #3: January 31
    - Quiz #4: February 7
    - Quiz #5: February 14
    - Quiz #6: February 28
    - Quiz #7: March 7
    - Quiz #8: March 21
    - Quiz #9: March 28
    - Quiz #10: April 11
    - Quiz #11: April 25

- Problem sets: hardcopy due at the beginning of class on assigned dates
    - Problem Set #1: January 29
    - Problem Set #2: February 17
    - Problem Set #3: March 5
    - Problem Set #4: March 31
    - Problem Set #5: April 28

- Midterm exams:
    - Midterm #1: February 19
    - Midterm #2: April 2

- Final exam: May 7, 10:30-12:30, in classroom

- Other important dates:
    - January 20: no class (MLK)
    - March 10: no class (Spring Break)
    - March 12: no class (Spring Break)
    - March 20: no class (I'm traveling)
    - April 21: no class (Easter Monday)