## **FNCE 613**

## MACROECONOMICS AND THE GLOBAL ECONOMIC ENVIRONMENT

THE WHARTON SCHOOL OF THE UNIVERSITY OF PENNSYLVANIA

# PROFESSOR ANTHONY LANDRY FALL 2019

#### **COURSE DESCRIPTION**

Macroeconomics and the Global Economic Environment is an intermediate-level course in macroeconomics with an emphasis on current events and policy applications. The goal of this course is to provide the foundation needed to recognize and understand broad economic and financial movements in the global economy. Key topics include national income accounting, production and economic growth, employment, consumption, investment, the role of the government, business cycles, monetary policy, and international trade and finance. By the end of this course, students will be able to evaluate and discuss the global economic environment in which business and financial decisions are made.

Is the next recession at the horizon? How does the Federal Reserve impact U.S. and global economic activity? What are the impacts of the current U.S. government economic policies? Should firms maximize profits above all else? What are the impacts of the U.S.-led trade war on the U.S. and global economy? Does income inequality affect economic growth? Why imposing a minimum wage is a terrible idea? These questions and more will be addressed in this course.

#### **COURSE MATERIAL**

#### Canvas

The Canvas website contains the syllabus, lecture notes, quizzes, teaching assistants' office hours and locations, regrade request forms, and other useful information. Canvas is also a useful hub to start and participate in course-related discussions. **Notice that all material posted on Canvas are copyrighted**.

### **Reading Material**

The bulk of the course material comes from the lecture notes and course readings. The lecture notes are available on Canvas. Most course readings come from *The Financial Times, The New York Times, The Wall Street Journal, The Economist,* Federal Reserve Banks' and Brookings Institute publications. They are hyperlinked to web sources from within the syllabus.

There is no required textbook for this course. However, you will see references to sections of *Macroeconomics* (tenth edition) from Andrew B. Abel, Ben S. Bernanke and Dean Croushore, Addison-Wesley, 2019 (referred to as **ABC**) and *Macroeconomics* (fourth edition) from Charles I. Jones, Norton, 2018 (referred to as **Jones**) in the course outline section below. These are supplemental, but strongly

recommended, readings that supplement our class discussions. These textbooks are available at the Bookstore and at the Lippincott library reserve. Moreover, the study guides that supplement these textbooks are useful in aiding students who would benefit from additional explanations and practice with the material.

I will build many of the course concepts on current events. As such, you should keep current with economic news throughout the semester. A subscription to *The Economist, The Financial Times, The New York Times, The Wall Street Journal* or a close substitute is recommended. Selected articles from these sources may be added to the list of required readings later during the semester.

#### **GRADING**

Grades are based on two exams (60%), six quizzes (10%), the Fed challenge (10%), and class participation (20%). Class participation includes attendance, but primarily depends on coming to class prepared to discuss the assigned material, on your overall involvement in the lectures, and on your respectful and meaningful participation in class discussions and case studies.

#### **Examinations**

The midterm exam is on Thursday, October 17, from 6:00 to 8:00pm. The final exam is on Friday, December 13, from 6:00 to 8:00pm. Both exams are comprehensive and closed book. However, you may have one single-sided 8.5" x 11" page of handwritten notes for the midterm exam and one double-sided 8.5" x 11" page of handwritten notes for the final exam. These handwritten sheets can only contain your own notes in your own handwriting. In particular, they may not contain large portions of reproduced notes or any other course materials such as slides, solution manuals or answer keys. Calculators are permitted. The final exam is cumulative over the material from the entire course.

The midterm exam counts as one grade, while the final exam counts as two grades. The total exam grade is computed as the average of the best two out of three grades. In other words, the lowest grade among these three grades is dropped. This policy of dropping the lowest exam grade provides you insurance against scheduling conflicts (e.g., inability to attend the midterm exam) and anomalous performances (e.g., a bad day). Because this insurance is being provided to you, no requests to reschedule or retake the first exam will be entertained unless specifically mandated by university policy. If you miss the first exam for any reason, you can simply use your insurance policy and drop that exam. The final exam can be rescheduled only if required by university policy.

#### **Regrade requests**

Regrade requests must be submitted using the **regrade request form** and the **statement of honesty** posted on Canvas and must be accompanied by your exam. Requests must be submitted within one week from the date the exam is returned (whether or not you actually pick up the exam on that date). Regrade requests must be specific. For any request, the entire exam will be regraded; meaning, the grade may stay the same, go up or go down after regrading. Any alteration of the exam is therefore strictly forbidden and will be considered as a violation to the <u>Code of Academic Integrity</u>.

#### Quizzes

There will be six quizzes available on Canvas. The quizzes are designed to reinforce key concepts from the classes and to help you prepare for the exams. Your final quiz grade will be the average of your best five quizzes. Due dates are indicated in the table below and under the course outline section of this syllabus. The quizzes must be submitted by 9:00am on the due date. Quizzes will not be accepted late and no regrade requests will be entertained. Answers to quizzes will be posted on Canvas shortly after the due date.

QUIZ#	TOPIC	AVAILABLE ON	DUE BY 9:00am ON
1	Introduction to macroeconomic data	Monday, September 9	Monday, September 16
2	Production, employment, and growth	Monday, September 23	Monday, September 30
3	Consumption, saving, and investment	Wednesday, October 2	Monday, October 7
4	The business cycle	Wednesday, October 23	Monday, October 28
5	Monetary policy	Monday, November 4	Monday, November 11
6	The global economy	Wednesday, November 13	Monday, November 18

# **Fed Challenge**

The Fed Challenge is a team assignment designed to bring real-world economics into the classroom and to promote teamwork and communication. Each team will give an in-class presentation applying the course material to analyze economic and financial conditions, and formulate a monetary policy recommendation. Details will be provided in class and on Canvas in the second half of the semester. All students of a team will get the same grade regardless of their individual contributions.

#### **ACADEMIC INTEGRITY**

All relevant University policies regarding Academic Integrity must be followed. Please consult the <u>Code of Academic Integrity</u> for details.

#### Copyrights

All material posted on Canvas, including lecture slides, quizzes, practice and past exams, and case studies are copyrighted and cannot be distributed, transferred, posted, or reproduced without my written permission. Violation of this policy will be considered a breach of academic integrity and legal action will be pursued against violators.

#### **Course Etiquette**

To promote a good learning environment, <u>Wharton's MBA Concert Rules</u> are in effect. The Concert Rule about phones is strict. If you must keep a phone on for a personal emergency reason, please inform me ahead of class. Laptop or tablet use is also highly discouraged.

#### **CONTACT INFORMATION**

Most information about the course is posted on Canvas. All questions related to the course material should be posted on Canvas. I will be happy to answer short and concise questions that are posted on Canvas. This is an efficient way to clarify concepts and to disseminate information.

Email: <u>alandry@wharton.upenn.edu</u>
Office hours: Tuesdays, 9:00 - 10:00am

Office: SHDH 2429

# **Teaching Assistants**

<u>Name</u>	Email address	Office hours	<b>Location</b>
Irene Gendelman	igend@wharton.upenn.edu	W 3:00-4:00pm	SHDH 2406
Julia Lesko	leskoj@wharton.upenn.edu	M 4:30-5:30pm	SHDH 2406
Natalie Sadjo	sadjo@wharton.upenn.edu	W 12:00-1:00pm	SHDH 2406
David Shasha	dshasha@wharton.upenn.edu	M 12:00-1:00pm	SHDH 2406

# **COURSE SCHEDULE**

ECTURE	DATE	TOPIC
1	Wednesday, August 28, 2019	National Income Accounting
	Monday, September 2, 2019	Labor day
	Wednesday, September 4, 2019	CANCELLED
2	Monday, September 9, 2019	Measuring Economic Changes over Time
3	Wednesday, September 11, 2019	Production and Economic Growth
4	Monday, September 16, 2019	<b>Drivers of Productivity and Global Competitiveness</b>
5	Wednesday, September 18, 2019	CASE STUDY: The Solow Growth Model Unleashed
6	Monday, September 23, 2019	The Labor Market
7	Wednesday, September 25, 2019	Consumption and Saving Decisions
8	Monday, September 30, 2019	Investment and Goods Market Equilibrium
9	Wednesday, October 2, 2019	The Asset Market, Money, and Prices
10	Monday, October 7, 2019	The Business Cycle and the IS/LM Model
	Wednesday, October 9, 2019	Review Session
	Monday, October 14, 2019	MBA Core Exams, Classes do not meet
	Wednesday, October 16, 2019	MBA Core Exams, Classes do not meet
	Thursday, October 17, 2019	MIDTERM, 6:00-8:00pm
11	Monday, October 21, 2019	Firms' Pricing Behavior and the Phillips Curve
12	Wednesday, October 23, 2019	Aggregate Demand and Aggregate Supply
13	Monday, October 28, 2019	The Federal Reserve System
14	Wednesday, October 30, 2019	Monetary Policy
15	Monday, November 4, 2019	CASE STUDY: What should Jerome Powell do?
16	Wednesday, November 6, 2019	International Trade
17	Monday, November 11, 2019	Exchange Rates and International Finance 1
18	Wednesday, November 13, 2019	Exchange Rates and International Finance 2
19	Monday, November 18, 2019	The Government and the Macroeconomy
20	Wednesday, November 20, 2019	Fed Challenge Presentations 1
	Monday, November 25, 2019	Core courses do not meet, Classes do not meet
	Wednesday, November 27, 2019	Core courses do not meet, Classes do not meet
21	Monday, December 2, 2019	Fed Challenge Presentations 2
	Wednesday, December 4, 2019	Review Session
	Friday, December 13, 2019	FINAL, 6:00-8:00pm

#### **COURSE OUTLINE AND READING LIST**

## **Topic 1: Introduction to Macroeconomic Data**

#### Wednesday, September 28: National Income Accounting

<u>Topics</u>: origin of national income accounting, definitions and measurements of Gross Domestic Product (GDP), GDP components, production, income, and expenditure approach of measuring GDP, saving and wealth

Readings: ABC Ch. 2.1-2.3

**Jones** Ch. 2.1 and 2.2

Economics isn't dismal. It's useful. The New York Times, July 2019

A Recession Is Coming. Here's Where You'll See It First. The New York Times, July 2019

# Monday, September 9: Measuring Economic Changes over Time

<u>Topics</u>: nominal and real GDP, GDP across countries, growth rates, the rule of 70, price indices and inflation, nominal and real interest rates, the Fisher equation

Readings: ABC Ch. 2.4 and 2.5

**Jones** Ch. 2.3 and 2.4

The chained CPI, The Brookings Institution, March 2018

A key reason the Fed struggles to hit 2 percent inflation: uncooperative prices, The Wall

Street Journal, August 2019

Negative yields: Charting the surge in sliding rates, The Financial Times, August 2019

Quiz #1 due on Monday, September 16 by 9:00am

#### **Topic 2: Production and Economic Growth**

### Wednesday, September 11: Production and Economic Growth

<u>Topics</u>: production function, return to scale, Cobb-Douglas production function, capital and labor inputs, Total Factor Productivity, marginal product of capital and labor, diminishing marginal products, capital and labor inputs allocation, production and shocks to labor, capital or TFP, sources of economic growth, income differences across countries, growth accounting

Readings: ABC Ch. 3.1 and 6.1

Jones Ch. 4

<u>Is Slow Still the New Normal for GDP Growth?</u> Economic Letter, Federal Reserve Bank of San

Francisco, June 2019

## Monday, September 16: Drivers of Productivity and Global Competitiveness

<u>Topics</u>: the Solow growth model, innovation and economic growth, determinants of long-run living standards, international convergence, government policies and long-run growth

Readings: ABC Ch. 6.2-6.4

Jones Ch. 5

The future might not belong to China, The Financial Times, January 2019

### Wednesday, September 18: The Solow Growth Model: Practice

Case study: "The Solow Growth Model Unleashed," by Nicolas Vincent and Pierre Yared

Columbia Business School ID#130304 on Study.Net

#### **Topic 3: Economic Markets**

### Monday, September 23: The Labor Market

<u>Topics</u>: the U.S. labor market, labor demand, labor supply, income and substitution effects, labor market equilibrium, full-employment output, wages and inequality, labor market measurements, frictional vs. structural unemployment, natural rate of unemployment, Okun's law

Readings: ABC Ch. 3.2-3.6

Jones Ch. 7

<u>Is the hot economy pulling new workers into the labor force?</u> *Economic Letter,* Federal

Reserve Bank of San Francisco, May 2019

Equal rights make sense for U.S. economy, The New York Times, May 2012

Why aren't U.S. workers working? Economic Letter, Federal Reserve Bank of San Francisco,

November 2018

Government to Measure Who Gets What Share of the Economic Pie, The Wall Street Journal,

April 2019

## Quiz #2 due on Monday, September 30 by 9:00am

#### Wednesday, September 25: Consumption and Saving Decisions

<u>Topics</u>: consumption and saving decisions, the intertemporal budget constraint, income and wealth, income and substitution effects, permanent-income hypothesis, Ricardian equivalence, borrowing constraints, empirical evidence on consumption

Readings: ABC Ch. 4.1 and appendix 4.A

Jones Ch. 16

Valuation ratios for households and businesses, Economic Letter, Federal Reserve Bank of San

Francisco, January 2018

#### Monday, September 30: Investment and Goods Market Equilibrium

<u>Topics</u>: firms' investment decisions, the user cost of capital, desired capital stock and investment, components of physical investment, saving and investment equilibrium, the real interest rate

Readings: ABC Ch. 4.2-4.3

Jones Ch. 17

CEOs look beyond their shareholders, The New York Times, August 2019 and podcast

Why are interest rates so low? Part 1, by Ben Bernanke, March 2015

Why are interest rates so low? Part 2: Secular stagnation, by Ben Bernanke, March 2015 Why are interest rates so low? Part 3: The Global Savings Glut, by Ben Bernanke, April 2015

## Wednesday, October 2: The Asset Market, Money, and Prices

<u>Topics</u>: monetary aggregates, portfolio allocation and the demand for assets, money demand, money supply creation, the quantity theory of money, asset market equilibrium, money growth and inflation, the costs of inflation

Readings: ABC Ch. 7

Jones Ch. 8

Monetary policy, money, and inflation, Economic Letter, Federal Reserve Bank of San

Francisco, July 2012

Quiz #3 due on Monday, October 7 by 9:00am

#### Monday, October 7: The Business Cycle and the IS/LM Model

<u>Topics</u>: business cycle trends and fluctuations, actual and potential output, overview of the short-run model, equilibrium in the labor, goods, and asset markets, macroeconomic shocks and the IS/LM model

Readings: ABC Ch. 8 and 9.1-9.4

<u>U.S. economic expansion becomes longest in history</u>, *The Financial Times*, July 2019. <u>The record-breaking US economic recovery in charts</u>, *The Financial Times*, July 2019.

<u>The perennial problem of predicting potential</u>. *Economic Letter*, Federal Reserve Bank of San Francisco, November 2017.

Wednesday, October 9: Review Session

Midterm Exam: Thursday, October 17, from 6:00 to 8:00pm

# **Topic 4: Business Cycle Models**

### Monday, October 21: Firms' Pricing Behavior and the Phillips Curve

<u>Topics</u>: firms' pricing behavior, unemployment and inflation, the Phillips curve, the role of inflation expectations

Readings: ABC Ch. 11.2 and 12

Jones Ch. 12

The Phillips Curve, The Brookings Institution, August 2018.

Unemployment: Lower for longer? Federal Reserve Bank of San Francisco, August 2019

Why is inflation low globally? Federal Reserve Bank of San Francisco, July 2019

The Natural Rate of Unemployment over the past 100 years. *Economic Letter*, Federal

Reserve Bank of San Francisco, August 2017

### Wednesday, October 23: Aggregate Demand and Aggregate Supply

<u>Topics</u>: aggregate demand curve, aggregate supply curve, the AS/AD framework, the liquidity trap, the dangers of deflation, expectations and economic activity

Readings: ABC Ch. 9.5-9.6

Jones Ch. 13

The neutral rate of interest, The Brookings Institution, October 2018.

The financial crisis at 10: Will we ever recover? Economic Letter, Federal Reserve Bank of San

Francisco, August 2018

Quiz #4 due on Monday, October 28 by 9:00am

#### **Topic 5: Monetary Policy**

#### Monday, October 28: The Federal Reserve System

<u>Topics</u>: the Federal Reserve System, central banking around the world, the Federal Open Market Committee, conventional monetary policy, open market operations, the federal funds market

Readings: **ABC** Ch. 14.1-14.3

"Central Banks and the Federal Reserve System," by Frederic Mishkin on Study.Net

"Tools of Monetary Policy," by Frederic Mishkin on Study.Net

America needs an independent Fed, *The Wall Street Journal*, August 2019

The Framework for monetary policy, The Brookings Institution, January 2018

## Wednesday, October 30: Monetary Policy

<u>Topics</u>: monetary policy rules, the Taylor rule, the limits of conventional monetary policy, the Great Recession, unconventional monetary policy, financial stability

Readings: ABC Ch. 14.4-14.5

"The Conduct of Monetary Policy: Strategy and Tactics," by Frederic Mishkin on Study.Net What tools does the Fed have left? Part 1, Part 2, Part 3, by Ben Bernanke, March 2016

A review of the Fed's unconventional monetary policy, Economic Letter, Federal Reserve Bank of San Francisco, December 2018

<u>How Much Could Negative Rates Have Helped the Recovery?</u> *Economic Letter*, Federal Reserve Bank of San Francisco, February 2019

Why is the Fed's balance sheet still so big? Economic Letter, Federal Reserve Bank of San Francisco, June 2019

#### Monday, November 4: The Conduct of Monetary Policy in 2019

Case study: "What should Jerome Powell do?" by Anthony Landry on Canvas

Quiz #5 due on Monday, November 11 by 9:00am

#### **Topic 6: The Global Economy**

### Wednesday, November 6: International Trade

<u>Topics</u>: facts about international trade, reasons for trade, risk sharing, absolute and comparative advantage, costs and benefits of international trade, trade and capital flows, twin deficits

Readings: Jones Ch. 19

Five big truths about trade, The Wall Street Journal, April 2016

<u>As tariffs bite, get ready for a 1970s-style supply shock,</u> *The Wall Street Journal,* June 2019 <u>How much do we spend on imports?</u> *Economic Letter,* Federal Reserve Bank of San Francisco,

January 2019

## Monday, November 11: Exchange Rates and International Finance 1

<u>Topics</u>: open-economy goods-market equilibrium, open-economy saving and investment, fiscal policy and the current account, the nominal and real exchange rates, exchange rate movements and trade flow

Reading: ABC Ch. 5

<u>Has the dollar become more sensitive to interest rates?</u> *Economic Letter*, Federal Reserve Bank of San Francisco, June 2017

### Wednesday, November 13: Exchange Rates and International Finance 2

<u>Topics</u>: open-economy IS/LM, open-economy AS/AD, interest rates and exchange rate movements, international transmission of monetary policy, fixed exchange rates

Readings: ABC Ch. 13

Jones Ch. 20

<u>Inflationary Effects of Trade Disputes with China?</u> *Economic Letter*, Federal Reserve Bank of

San Francisco, February 2019

The Brexit Price Spike, Economic Letter, Federal Reserve Bank of San Francisco, August 2019

Quiz #6 due on Monday, November 18 by 9:00am

### **Topic 7: Fiscal Policy**

### Monday, November 18: The Government and the Macroeconomy

<u>Topics</u>: U.S. government spending and revenue, fiscal policy and aggregate demand, government debt and deficits, sustainability of public debt, the European debt crisis, problems of the 21<sup>st</sup> century

Readings: **ABC** Ch. 15.1-15.3

Jones Ch. 18

How worries should you be about the federal debt? The Brookings Institution, January 2019

The national debt is still a problem, The New York Times, June 2019

Fiscal policy in good times and bad, Economic Letter, Federal Reserve Bank of San Francisco,

July 2018

Wednesday, November 20: Fed Challenge 1

Monday, December 2: Fed Challenge 2

Wednesday, December 4: Review Session

Second Exam: Friday, December 13, from 6:00 to 8:00pm