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 Code of Academic Integrity.
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.

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<thead>
<tr>
<th>QUIZ #</th>
<th>TOPIC</th>
<th>AVAILABLE ON</th>
<th>DUE BY 9:00am ON</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction to macroeconomic data</td>
<td>Monday, September 9</td>
<td>Monday, September 16</td>
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<td>2</td>
<td>Production, employment, and growth</td>
<td>Monday, September 23</td>
<td>Monday, September 30</td>
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<td>3</td>
<td>Consumption, saving, and investment</td>
<td>Wednesday, October 2</td>
<td>Monday, October 7</td>
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<td>4</td>
<td>The business cycle</td>
<td>Wednesday, October 23</td>
<td>Monday, October 28</td>
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<td>5</td>
<td>Monetary policy</td>
<td>Monday, November 4</td>
<td>Monday, November 11</td>
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<td>6</td>
<td>The global economy</td>
<td>Wednesday, November 13</td>
<td>Monday, November 18</td>
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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 [Code of Academic Integrity](#) 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, [Wharton’s MBA Concert Rules](#) 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: alandry@wharton.upenn.edu
Office hours: Tuesdays, 9:00 - 10:00am
Office: SHDH 2429

Teaching Assistants

<table>
<thead>
<tr>
<th>Name</th>
<th>Email address</th>
<th>Office hours</th>
<th>Location</th>
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<tbody>
<tr>
<td>Irene Gendelman</td>
<td><a href="mailto:igend@wharton.upenn.edu">igend@wharton.upenn.edu</a></td>
<td>W 3:00-4:00pm</td>
<td>SHDH 2406</td>
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<tr>
<td>Julia Lesko</td>
<td><a href="mailto:leskoj@wharton.upenn.edu">leskoj@wharton.upenn.edu</a></td>
<td>M 4:30-5:30pm</td>
<td>SHDH 2406</td>
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<tr>
<td>Natalie Sadjo</td>
<td><a href="mailto:sadjo@wharton.upenn.edu">sadjo@wharton.upenn.edu</a></td>
<td>W 12:00-1:00pm</td>
<td>SHDH 2406</td>
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<tr>
<td>David Shasha</td>
<td><a href="mailto:dshasha@wharton.upenn.edu">dshasha@wharton.upenn.edu</a></td>
<td>M 12:00-1:00pm</td>
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<td>1</td>
<td>Wednesday, August 28, 2019</td>
<td>National Income Accounting</td>
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<td>Measuring Economic Changes over Time</td>
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<td>Wednesday, September 11, 2019</td>
<td>Production and Economic Growth</td>
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<td>4</td>
<td>Monday, September 16, 2019</td>
<td>Drivers of Productivity and Global Competitiveness</td>
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<td>5</td>
<td>Wednesday, September 18, 2019</td>
<td>CASE STUDY: The Solow Growth Model Unleashed</td>
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<td>Monday, September 23, 2019</td>
<td>The Labor Market</td>
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<td>7</td>
<td>Wednesday, September 25, 2019</td>
<td>Consumption and Saving Decisions</td>
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<td>8</td>
<td>Monday, September 30, 2019</td>
<td>Investment and Goods Market Equilibrium</td>
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<td>9</td>
<td>Wednesday, October 2, 2019</td>
<td>The Asset Market, Money, and Prices</td>
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<td>10</td>
<td>Monday, October 7, 2019</td>
<td>The Business Cycle and the IS/LM Model</td>
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<td>Wednesday, October 9, 2019</td>
<td>Review Session</td>
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<td>Monday, October 14, 2019</td>
<td>MBA Core Exams, Classes do not meet</td>
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<td>Monday, October 21, 2019</td>
<td>Firms’ Pricing Behavior and the Phillips Curve</td>
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<td>Wednesday, October 23, 2019</td>
<td>Aggregate Demand and Aggregate Supply</td>
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<td>13</td>
<td>Monday, October 28, 2019</td>
<td>The Federal Reserve System</td>
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<td>Wednesday, October 30, 2019</td>
<td>Monetary Policy</td>
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<td>15</td>
<td>Monday, November 4, 2019</td>
<td>CASE STUDY: What should Jerome Powell do?</td>
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<td>Wednesday, November 6, 2019</td>
<td>International Trade</td>
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<td>Monday, November 11, 2019</td>
<td>Exchange Rates and International Finance 1</td>
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<td>Wednesday, November 13, 2019</td>
<td>Exchange Rates and International Finance 2</td>
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<td>19</td>
<td>Monday, November 18, 2019</td>
<td>The Government and the Macroeconomy</td>
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<td>Wednesday, November 20, 2019</td>
<td>Fed Challenge Presentations 1</td>
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<td>Monday, December 2, 2019</td>
<td>Fed Challenge Presentations 2</td>
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<td>Friday, December 13, 2019</td>
<td>FINAL, 6:00-8:00pm</td>
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COURSE OUTLINE AND READING LIST

Topic 1: Introduction to Macroeconomic Data

Wednesday, September 28: National Income Accounting

Topics: 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

Monday, September 9: Measuring Economic Changes over Time

Topics: 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**

**Topics:** 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  

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

**Topics:** 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

Topics: 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
Is the hot economy pulling new workers into the labor force? Economic Letter, Federal Reserve Bank of San Francisco, May 2019
Why aren’t U.S. workers working? Economic Letter, Federal Reserve Bank of San Francisco, November 2018

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

Wednesday, September 25: Consumption and Saving Decisions

Topics: 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

Topics: 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

Topics: 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

Topics: 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

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

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

Readings: ABC Ch. 11.2 and 12
          Jones Ch. 12
          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

Topics: 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**

**Topics:** 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**

**Topics:** 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  
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  

**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**

**Topics:** 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

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

**Topics:** 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
  - Has the dollar become more sensitive to interest rates? *Economic Letter*, Federal Reserve Bank of San Francisco, June 2017

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

**Topics:** 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
  - Inflationary Effects of Trade Disputes with China? *Economic Letter*, Federal Reserve Bank of San Francisco, February 2019

**Quiz #6** due on Monday, November 18 by 9:00am
Topic 7: Fiscal Policy

Monday, November 18: The Government and the Macroeconomy

Topics: 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 21st 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