

# Spring 2020

## Economics 106 – Principles of Macroeconomics

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**Office Hours:** Mondays 4:00-5:00 (via live Zoom)

**Special note:** This syllabus is revised and updated for the online format of the class as the University decides to deliver the entire classes via online in the 2020 spring quarter due to Coronavirus outbreak.

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**Goal of this course:** This course provides an introduction to economic issues and basic economic principles and methods. We concentrate on “macroeconomics,” the study of the economy as a whole. We study economic growth, business cycles, financial markets and the impact of both monetary and fiscal policy on inflation, unemployment, interest rates, investment, the exchange rate, and international trade. We also look briefly at the economies of developing countries.

**Prerequisites:** It is recommended that you take principles of microeconomics (EC105) before you take this course, although EC105 is not a required prerequisite. You should be familiar with demand-supply model which is typically learned in principles of microeconomics, and with some basic algebra.

**Textbook:** N. Gregory Mankiw (2020), **Brief Principles of Macroeconomics**, 9th edition, Cengage.

Note that the publisher Cengage makes Mankiw textbook 9<sup>th</sup> edition (e-book) available for free. The problem sets will also be based on the 9<sup>th</sup> edition.

Mankiw textbook will serve as primary readings, which will be supplemented with class handouts and articles. Since we extensively cover the U.S. and international data, handouts will be given on a regular basis (Handouts will be posted in D2L: <https://d2l.depaul.edu/>).

**Course Requirements:** It is very important to closely follow lectures (online), since the materials covered in lectures form the core of the course.

### **3 requirements: Midterm Exam, Final Exam, and Problem Sets**

(1) There will be one midterms and one final. **The midterm exam is tentatively scheduled on Apr 29, and the final on June 10 (to be confirmed later).** Both exams will be take-home exams (i.e., open-book test).

(2) **Problem sets (homework):** 7 Problem sets (mostly from textbook) will be assigned in about each week. Each problem set will be graded on a simple scale 0 (no submission) and 1 (submission). More information will be provided.

**Grade:** Course grade will be determined by the midterm (40%), the final (40%), problem sets (18%), and class engagement (2%). Note that D2L records the data on class engagement.

**Grading Scale:** A=94% and above;  $88\% \leq A < 95\%$ ;  $82\% \leq B+ < 88\%$ ;  $77\% \leq B < 82\%$ ;  $72\% \leq B- < 77\%$ ;  $67\% \leq C+ < 72\%$ ;  $63\% \leq C < 67\%$ ;  $59\% \leq C- < 63\%$ ;  $56\% \leq D+ < 59\%$ ;  $53\% \leq D < 56\%$ ;  $50\% \leq D- < 53\%$ ; and F < 50%.

### **General policy**

You should be aware of and abide by the University's policy on academic integrity (<http://academicintegrity.depaul.edu>). Also, the instructor reserves the right to change the topics or schedules if necessary.

### **Makeup Exams**

In cases of severe illness or other extreme circumstances, a student may request a makeup exam. You must inform me of and obtain permission for the absence prior to the exam time, and provide appropriate documentation. I reserve the right to investigate the legitimacy of the request and to assess a grade penalty, or to award a grade of zero if proper procedure is not followed.

### **Desire2Learn (D2L)**

All class material will be posted on D2L (<https://d2l.depaul.edu/>). All communication will be through D2L, although I will make announcements in class and occasionally send emails as needed. "I DIDN'T CHECK D2L" will not be a valid excuse for missing announcements or assignments

### **Special Notice on Online Class, Discussion, and Emails**

(1) The course will be delivered as "asynchronous" online, which means that I will deliver the lecture via pre-recorded format. So, it will NOT require us to meet up virtually at a set time and day, as you would do with live ZOOM.

That said, to facilitate individual students' questions and concerns, I will hold a virtual office hour so that we can connect in real time via live ZOOM.

(2) Both midterm and final exams will be take-home exams (open-book test). Further details will be provided in advance before the exam is assigned and posted in D2L.

(3) In addition to my recorded lecture (which will be the main medium of delivering the lecture), I will post the regular lecture slides (that I usually use for face-to-face lecture in classroom) in D2L.

(4) Check the D2L frequently, especially "news items" and "contents", where I post new announcement and class materials for the class, respectively.

D2L will be key source of information about the class and course materials.

Also, I will write emails to the class as well.

(5) Please read the Zoom instruction to make yourself familiar with it so that it comes handy whenever you need it.

(6) Importantly, for general questions about the lecture materials and others, you are encouraged to use “Discussions” in D2L, while reserving the email correspondences only for discussions of personal matters/concerns.

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### TENTATIVE SCHEDULE

(Note that the following schedule is **only tentative** and may have to be modified if necessary.)

- Mar 30 Apr 1: Overview of the World Economy  
Data of Macroeconomics: Measuring a Nation’s Income and Cost of Living
- Apr 6, 8: National Income, and Economic Growth
- Apr 13, 15: Economic Growth  
Saving, Investment and the Financial System
- Apr 20, 22: Saving, Investment and the Financial System
- Apr 27: Monetary System and Inflation
- Apr 29: Midterm take-home exam (open-book test)**
- May 4, 6: Monetary System and Inflation
- May 11, 13: Foreign Exchange Rates  
Trade Balance, and Balance of Payments
- May 18, 20: Trade Balance, and Balance of Payments  
Business Cycle: Aggregate Demand-Supply Model.
- May 25: **Memorial National Holiday (no class)**
- May 27: Business Cycle: Aggregate Demand-Supply Model.
- Jun 1, 3: Business Cycle: Aggregate Demand-Supply Model.

**June 10 (to be confirmed): Final Exam in class** (closed-book test).

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## Suggested Reading List (\* indicates more important readings)

### I. Overview of the World Economy and Data of Macroeconomics

1. Introduction to Macroeconomics
2. Measuring a Nation's Income: GDP
3. Measuring the Cost of Living (inflation), and Unemployment

Readings: **Mankiw, Ch.5. Measuring a Nation's Income; Ch. 6. Measuring the Cost of Living; Ch. 10. Unemployment and Its Natural Rate.**

- U.S. and Global Economic Outlook

["Federal Reserve issues FOMC statement,"](#) Federal Reserve Board, March 17-18, 2020.

["Recent Economic and Financial Developments,"](#) Monetary Policy Report to The Congress by the Federal Reserve Board, February, 7, 2020.

["Federal Reserve Announces Extensive New Measures to Support the Economy,"](#) Federal Reserve Board, March 23, 2020.

["What's in the nearly \\$2 trillion U.S. Senate coronavirus stimulus?"](#) Reuters, March 24, 2020.

["U.S. recession chances now at 80% despite Fed emergency moves: Reuters poll,"](#) Reuters, March 19, 2020.

["Learning from a Century of US Recessions,"](#) US Economics Analyst, Goldman Sachs, Jan. 20, 2019.

["Global Growth Plunging Into Downturn Over Coronavirus, OECD Says,"](#) New York Times, March 2, 2020

["US 10-year yield falls below 1 per cent for first time,"](#) Financial Times, March 3, 2020.

- Major Macro Issues

["A Challenging Decade and a Question for the Future,"](#) Janet Yellen, Oct 20, 2017.

["Why Are Interest Rates So Low?"](#) Ben Bernanke, Mar 30 and 31, Apr 1 and 13, 2015.

["What Tools Does the Fed Have Left?"](#) Ben Bernanke, Mar 18 and 24, Apr 11, 2016.

["Has the Wage Phillips Curve Gone Dormant?"](#) Sylvain Leduc and Daniel Wilson, Oct 16, 2017.

- 2007-09 Financial Crisis and Great Recession

\*["Financial panic and credit disruptions in the 2007-09 crisis,"](#) Ben Bernanke, September 13, 2018.

["The housing bubble, the credit crunch, and the Great Recession: A reply to Paul Krugman,"](#) Ben Bernanke, September 21, 2018.

["The Federal Reserve's response to the financial crisis,"](#) Ben Bernanke, March 27, 2012.

["The crisis,"](#) Alan Greenspan, Brookings Papers on Economic Activity, Spring 2010.

- Sovereign Debt Crisis in Europe

["The European sovereign debt crisis,"](#) Philip Lane, Journal of Economic Perspectives, Summer 2012, pp. 49–68

["European debt crisis,"](#) New York Times (a collection of articles and the chronology of the crisis).

### II. The Real Economy in the Long Run

## **Economic Growth**

1. Sources of Economic Growth
2. Productivity Determinants: Capital Accumulation and Total Factor Productivity
3. Productivity Slowdown during 1970s and 80s, and IT Boom and Productivity Surge in the mid-1990s and early 2000s
4. Convergence: international differences in growth rate

Readings: **Mankiw, Ch. 7. Production and Growth**

Additional readings (optional):

[“A Productivity Primer,”](#) The Economist, Nov 4, 2004.

\*[“Chapter 2.Productivity Growth,”](#) in *Economic Report of the President*, 2007, pp.45-62.

[“What Is the New Normal for US Growth?”](#) John Fernald, FRBSF Economic Letter, Oct 11, 2016.

## **Saving, Investment, and the Financial System**

1. National Income Account: Saving and Investment
2. Overview of Financial Markets and Financial Intermediaries
3. Time Value of Money, and Present Discount Value (PDV)
4. Bonds: Bond Pricing and Interest Rates
5. The Stock Market and Efficient Market Hypothesis (only if time permits)

Readings: **Mankiw, Ch. 8. Saving, Investment, and the Financial System, and Ch. 9. The Basic Tools of Finance.**

Additional readings (optional):

\*[“Spendthrift Nation,”](#) FRBSF Economic Letter, Nov. 10, 2005.

[“Explanations for Increasing Earnings Inequality,”](#) in Chapter 5 of *Economic Report of the President*, Feb. 1997, pp. 170-175.

\*[“Economic Inequality in the United States,”](#) Janet Yellen, FRBSF Economic Letter, Dec 1, 2006.

\*Summary Article [“Inequality in the Long-Run”](#) Thomas Piketty and Emmanuel Saez, *Science* 344, 2014, 838-843

[“Perspectives on Inequality and Opportunity from the Survey of Consumer Finances,”](#) Janet L. Yellen, Speech at the Conference on Economic Opportunity and Inequality, Federal Reserve Bank of Boston, Boston, October 17, 2014.

[“The China Shock: Learning from Labor Market Adjustment to Large Changes in Trade”](#), David Autor, David Dorn, and Gordon H. Hanson, *Annual Review of Economics*, 2016, 8, 205–240.

## **III. Money and Prices in the Long Run**

### **Money and Inflation**

1. Money
2. The Federal Reserve System
3. The Money Supply and Money Multiplier
4. Long-run Effects of Money Supply: The Quantity Theory of Money
5. Money Market Equilibrium

Readings: **Mankiw, Ch.11. The Monetary System, and Ch.12. Money Growth and Inflation.**

Additional readings (optional):

- “[A Short History of Inflation](#),” The Economist, February 22, 1992.
- \*“[Globalization and Monetary Policy](#),” Ben Bernanke, Speech at Stanford, March 2, 2007.
- “[Inflation, Uncertainty, and Monetary Policy](#),” Janet Yellen, Sept 26, 2017
- \*“[Lecture 3: The Federal Reserve's Response to the Financial Crisis](#),” Ben Bernanke, March 27, 2012.
- \*“[Lecture 4: The Aftermath of the Crisis](#),” Ben Bernanke, March 29, 2012.
- “[What Tools Does the Fed Have Left?](#)” Ben Bernanke, Mar 18 and 24, Apr 11, 2016.

- Unconventional Monetary Policy (Quantitative Easing)
  - \*“[The Fed Reaches Deeper into Its Tool Box](#),” Economic Research Note, JPMorgan Chase Bank, March 14, 2008.
  - \*“[Quantitative Easing for the People](#),” Project Syndicate, John Muellbauer, Nov 5, 2014.
  - “[Do Central Bank Policies Since the Crisis Carry Risks to Financial Stability?](#)”, IMF, Chapter 3 of Global Financial Stability Report, April 2013.

- Inflation Targeting
  - “[On Target?](#)” (on inflation targeting) The Economist, August 30, 2001.

#### IV. The Macroeconomics of Open Economies

##### Foreign Exchange Rates, Trade Balance, and Balance of Payment Accounts

1. National Income Accounts and International Trade
2. Foreign Exchange Rates

Readings: **Mankiw, Ch.13. Open-Economy Macroeconomics: Basic Concepts.**

Additional readings (optional):

- \* “[The US Capital Account Surplus](#),” in Chapter 6 of Economic Report of the President, Feb 2006, pp. 125-147.

- Exchange Rates
  - \*“[Chapter 7. Currency Market and Exchange Rates](#),” in Economic Report of the President, Feb 2007, pp.149-166.
- On PPP
  - “[A Much Devalued Theory](#),” The Economist, Jan. 1996.
  - “[The Big Mac Index](#),” The Economist, August 7, 2013.
- On Monetary Policy Implications of Fixed Exchange Rates
  - “[The Fed is forced to fuel a global boom](#),” The Financial Times, March 30, 2004.
  - “[Currency Unions](#),” The Financial Times, Dec 27, 2007.
  - “[Currency Pegs under Pressure](#)” The Financial Times, November 5, 2007.

#### V. Short-run Economic Fluctuations

##### Aggregate Demand and Supply

1. Introduction to Aggregate Demand and Components of Real Aggregate Expenditures (Consumption, Investment, Net Export)
2. The Aggregate Demand (AD) Curve
3. The Long-run Aggregate (LRAS) Supply
4. The Short-run Aggregate (SRAS) Supply
5. Macroeconomic Equilibrium in the Short Run and Transition to the Long-run Equilibrium
6. Lessons from The Great Depression in the 1930s, Today's Japan and Europe Problem, and Great Recession

Readings: **Mankiw, Ch.15. Aggregate Demand and Aggregate Supply**

Additional readings (optional):

["The Great Expansion,"](#) Chapter 1 of Economic Report of the President, Feb. 2020.

["The US Business Cycle Expansions and Contractions,"](#) NBER Business Cycle Dating Committee.

["Will the Economic Recovery Die of Old Age?"](#) Glenn Rudebusch, FRBSF Economic Letter, Feb 4, 2016.

["Learning from a Century of US Recessions,"](#) US Economics Analyst, Goldman Sachs, Jan. 20, 2019.

["Sticky Situations,"](#) (on price stickiness) The Economist, Nov 7, 2006.

["Bubbles, Credit, and Their Consequences"](#) Òscar Jordà, Moritz Schularick, and Alan Taylor, FRBSF Economic Letter, Sept 12, 2016.

["How a Bubble Stayed Under the Radar"](#) Robert Shiller, New York Times, March 2, 2008

["Japan's Stimulus Plan Is Not Courageous But Foolhardy,"](#) Financial Times, William White November 20, 2014

["Printing Money to Fund Deficit Is the Fastest Way to Raise Rates,"](#) Financial Times, November 10, 2014, Adair Turner

### **Monetary Policy and Aggregate Demand**

1. Monetary Policy in the AD/AS model
2. Unemployment
3. The Relationship between Inflation and Unemployment: Phillips Curve and NAIRU

Readings: **Mankiw, Ch.16. The Influence of Monetary and Fiscal Policy on Aggregate Demand; and Ch. 17. The Short-Run Trade-Off between Inflation and Unemployment.**

(Note that Chapter 17 presents the Phillips curve in a slightly different way from the way we do in class. It emphasizes the idea of a vertical long-run Phillips curve, whereas in class we emphasize the relationship between the change in inflation and unemployment. These approaches are complimentary.)

Handout: Monetary Policy and the AS-AD Model, and the Inflation-Unemployment Relationship

Additional readings (optional):

["Curve Ball,"](#) Economist, September 28, 2006.

["The NAIRU in Theory and Practice,"](#) Laurence Ball and N. Gregory Mankiw, Working Paper, Harvard University, April 2002.

["A Challenging Decade and a Question for the Future"](#), Janet Yellen, Oct 20, 2017.

["What Tools Does the Fed Have Left?"](#) Ben Bernanke, Mar 18 and 24, Apr 11, 2016.

### **Fiscal Policy and Aggregate Demand**

1. Stabilization Policy: Aggregate Demand Management

2. Fiscal Policy in the Long Run
3. Fiscal Policy and Net Exports

Readings: **Mankiw, Ch. 16. The Influence of Monetary and Fiscal Policy on Aggregate Demand**

Additional readings (optional):

[“Comment: Is There a Role for Discretionary Fiscal Policy?”](#) Martin Feldstein, Presented at a symposium sponsored by Kansas Fed, Jackson Hole, Wyoming, August 2002.

\*[“Government Spending: An Economic Boost?”](#) Daniel J. Wilson, FRBSF Economic Letter, February 6, 2012

\*[“Has austerity gone too far?”](#) Giancarlo Corsetti, 2 April 2012

[“A Note on the Effects of the Higher National Debt On Economic Growth,”](#) Michael J. Boskin,

[“The CBO Budget and Economic Outlook Fiscal Years 2020-2030,”](#) Congressional Budget Office (CBO), January 2020.

[“Reassessing the Role and Modalities of Fiscal Policy in Advanced Economies,”](#) The IMF Policy Paper, September 2013.