E202 INTRODUCTION TO MACROECONOMICS

Instructor: Professor Peter Rangazas
Office Hours: T 3:00-5:00 or by appointment Cavanaugh Hall 518
e-mail: prangaza@iupui.edu
Texts: Required: Cowen and Tabarrok, Macroeconomics, Worth Edition,

Grading: Based on best 20 quizzes (1/5), 3 in-class exams (3/5), and a comprehensive department final (1/5)

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>(90-100%)</td>
</tr>
<tr>
<td>A−</td>
<td>(85-89%)</td>
</tr>
<tr>
<td>B+</td>
<td>(80-84%)</td>
</tr>
<tr>
<td>B</td>
<td>(75-79%)</td>
</tr>
<tr>
<td>B−</td>
<td>(70-74%)</td>
</tr>
<tr>
<td>C+</td>
<td>(65-69%)</td>
</tr>
<tr>
<td>C</td>
<td>(60-64%)</td>
</tr>
<tr>
<td>C−</td>
<td>(55-59%)</td>
</tr>
<tr>
<td>D</td>
<td>(50-54%)</td>
</tr>
<tr>
<td>F</td>
<td>(0-49%)</td>
</tr>
</tbody>
</table>

(3 of the 23 quizzes may be dropped; NO MAKEUPS FOR MISSED QUIZZES)

COURSE OUTLINE

I. Measuring the Macroeconomy

MEETING #1

A. Measuring Output—Nominal GDP
   Reading: Chapter 6, pp.93-97

MEETING #2

Discussion/ Quiz #1

B. Adjusting for Inflation—Real GDP
   Reading: Chapter 6, pp.97-102

MEETING #3

Discussion/ Quiz #2

C. Interpreting Real GDP
   Reading: Chapter 6, pp.102-109

II. Economic Growth: The Long-run

MEETING #4

A. Economic Growth I
   Reading: Chapter 7, pp.115-123
MEETING #5

Discussion/ Quiz #4

B. Economic Growth II
  Reading: Chapter 7, pp.123-131

MEETING #6

Discussion/ Quiz #5

C. Economic Growth III
  Reading: Chapter 8, pp.141-150

MEETING #7

Discussion/Quiz #6

D. Saving and Investment I
  Reading: Chapter 9, pp.175-184

MEETING #8

Discussion / Quiz #7

E. Saving and Investment II
  Reading: Chapter 9, pp.184-198

MEETING #9

Discussion / Quiz #8

Review

MEETING #10

EXAM #1

III. Money and the Business Cycle

MEETING #11

A. Labor Market I
  Reading: Chapter 11, pp.225-237

MEETING #12

Discussion / Quiz #9

B. Labor Market II
  Reading: Chapter 11, pp.237-246
MEETING #13

Discussion/ Quiz #10

C. Money and Inflation I
   Reading: Chapter 12, pp.251-255

MEETING #14

Discussion/ Quiz #11

D. Money and Inflation II
   Reading: Chapter 12, pp.255-260

MEETING #15

Discussion/ Quiz #12

E. Money and Inflation III
   Reading: Chapter 12, pp.260-267

MEETING #16

Discussion/ Quiz #13

F. Business Cycles I
   Reading: Chapter 13, pp.275-279

MEETING #17

Discussion/ Quiz #14

G. Business Cycles II
   Reading: Chapter 13, pp.280-286

MEETING #18

Discussion/ Quiz #15

H. Business Cycles III
   Reading: Chapter 13, pp.286-291

MEETING #19

Discussion/ Quiz #16

Review

MEETING #20
IV. Monetary and Fiscal Policy

A. Monetary Policy I
   Reading: Chapter 15, pp. 321-327

MEETING #22

Discussion/Quiz #17

B. Monetary Policy II
   Reading: Chapter 15, pp. 327-336

MEETING #23

Discussion/Quiz #18

C. Fiscal Policy I
   Reading: Chapter 17, pp.369-381

MEETING #24

Discussion/Quiz #19

D. Fiscal Policy II
   Reading: Chapter 17, pp.381-387

MEETING #25

Discussion/Quiz #20

V. International Finance

MEETING #26

Discussion/Quiz #21

A. Finance I
   Reading: Chapter 20, pp.433-440

MEETING #27

Discussion/Quiz #22

B. Finance II
   Reading: Chapter 20, pp.440-447

MEETING #28
Discussion/ Quiz #23

Review

MEETING #29

EXAM #3

MEETING #30

Review

COMPREHENSIVE FINAL

SATURDAY MAY 4, 1-3 PM
STUDY QUESTIONS

(The following notation refer to categories of questions at the end of chapters in Cowen and Tabarrok: FT—Facts and Tools, TP—Thinking and Problem Solving, C—Challenges)

I. Introduction
A. Thinking about Macroeconomics
1. Give a precise definition of Nominal GDP. How does the measurement of Nominal GDP account for the following measurement issues.
   (a) government provision of goods and services
   (b) production of goods by U.S. companies in foreign countries
   (c) production of goods by Foreign companies in the U.S.
   (d) U.S. exports of goods to foreign countries
   (e) U.S. imports of goods from foreign countries
   (f) the purchases of used goods and services
   (g) purchases of goods or parts by one firm from another firm
   (h) sale of good from a firms inventory that were not produced in the current year
   (i) purchases of financial assets (stocks and bonds) by households
   (j) wages paid to public officials
2. Why is GDP per person a better measure of living standards than GDP?
3. Chapter 6 FT 1-3,5-6; TP 11

B. Adjusting for Inflation Real GDP
1. Give an intuitive definition of what Real Gross Domestic Product (GDP) measures. Why is it important to compute Real GDP? What does the GDP Price Deflator measure?
2. What is the difference between the level of GDP and the growth rate of GDP? What is the growth rate of Nominal GDP, Real GDP, and Real GDP per capita over U.S. history.
3. What is the difference between the level of the GDP Price Deflator and the growth rate of the GDP Price Deflator? What is another name for the growth rate of the GDP Price Deflator?
4. Macroeconomics is divided into the study of economic growth and the study of business cycles. Explain the difference in the focus of these two branches of macroeconomics.
5. Chapter 6 FT 7-10; TP 10

C. Interpreting Real GDP
1. What are the four major expenditure components of GDP? Approximately what percent of GDP does each comprise?
2. Explain what is included in the investment component. Are financial investments included?
3. What is the difference between GDP and National Income?
4. What are the two major components of National income? What percent of National Income does each comprise?
5. Chapter 6 FT 11-12; TP 1,3, 8; C 2-4

II. Economic Growth: The Long-run
A. Economic Growth I
1. Chapter 7 FT 1-7,12; TP 1,5,11

B. Economic Growth II
1. Chapter 7 FT 11; TP 3,6,7,9; C 1-5

C. Economic Growth III
1. Chapter 8 FT 1,3-6; TP 1-3,5; C 2-4,7-8

D. Saving and Investment I
1. Explain why households save. Why do households and firms borrow?
2. Who supplies funds in the loanable funds market? Who demands funds?
3. Predict how the following events affects interest rates and investment in equilibrium.
(a) a technological advance that raises the expected profitability of physical capital (e.g. electricity during the Industrial Revolution at the end of the century or the internet during the late 1990s
(b) health improvements that extend the length of life in developing countries
(c) an investment tax credit or a reduction in the corporate profit tax
(d) eliminating the tax deduction for interest on home mortgages
(e) an increase in consumer confidence about future income levels

4. Chapter 9 FT 1-5; TP 2,11

E. Saving and investment II

1. What are financial intermediaries? If financial intermediation is costly how does it affect the market for loanable funds diagram? If there were no financial intermediaries would there be no saving and investment?
2. Chapter 9 FT 6-10; TP 3-9,12

III. Money and the Business Cycle

A. Labor Market I I

1. Chapter 11 FT 1-3,10; TP 1-4, 6,8-9, 11 C 1,3

B. Labor Market II

1. Chapter 11 FT 4, 7-9, TP 7

C. Money and Inflation I

1. What is the difference between inflation and an increase in the relative price of a single good?
2. What is money? What form does it take in modern economies? How is it measured?
3. What is the CPI? Describe the differences between the CPI and the GDP deflator.
4. Which do you think would have a greater effect on the CPI: a 10 percent increase in the price of chicken or a 10 percent increase in the price of caviar?
5. Describe the three problems that cause the CPI to over estimate the inflation rate. How large is the over-estimate?
6. Over a long period of time, the price of candy rose from $0.10 to $0.60. Over the same period the CPI rose from 150 to 200. How much did the relative price of candy rise?
7. Bath Ruth’s salary was $80,000 in 1931. If the CPI was 15.2 in 1931 and the CPI was 214.5 in 2009, what dollar value would allow Ruth the same purchasing power in 2009 that he had in 1931?
8. Chapter 12 FT 1; TP 1

D. Money and Inflation II

1. Write down the quantity equation and explain what each variable represents.
2. Write down the three key components of the Quantity Theory. What is the key prediction of the theory? Does the prediction consistent with the data?
3. Chapter 12 FT 2; TP 2-5

E. Money and Inflation III

1. Chapter 12 FT 4, 6-8; TP 6-8; C 3-4

F. Business Cycles I

1. Give 5 facts about business cycles.
2. Define the dynamic Aggregate Demand (AD) curve. How is it related to the quantity equation?
3. Explain why the AD curve has a slope of -1. What causes the AD curve to shift?
4. Chapter 13 FT 2; TP 4

G. Business Cycles II

1. Draw the Solow growth curve. Explain its slope. What causes it to shift?
2. Draw a long-run equilibrium. How does an increase in money growth affect the long-run equilibrium? How is this result related to the Quantity Theory?
3. Chapter 13 FT 3-8

H. Business Cycles III

1. Draw the Short-Run Aggregate Supply (SRAS) curve. Explain why its slope is positive. What causes it to shift?
2. Chapter 13 FT 1, 9-12; TP 1-2, 5-6; C 4
IV. Monetary and Fiscal Policy
A. Monetary Policy I
   1. Chapter 15 FT 1-3, 5-6
B. Monetary Policy II
   1. Chapter 15 FT 4,7-9; TP 3,5
   2. What is a solvency crisis? A liquidity crisis?
   3. What is systemic risk? What is moral hazard? How are the two concepts related to the 2007-2008 financial crisis?
C. Fiscal Policy I
   1. What are the top three sources of tax revenue? The top three types of government expenditures?
   2. Chapter 17 FT 1-7
D. Fiscal Policy II
   1. Chapter 17 FT 8, TP 2-3, 8, C3,5

V. International Macroeconomics
A. International Finance I
   1. What is the explanation for the persistent U.S. trade deficit since 1980?
   2. Chapter 20 FT 2-4; TP 1-4
B. International Finance II
   1. Chapter 20 FT 5-10; TP 5-6