# **Economics 10b Principles of Economics**

# Harvard University Spring 2019

Professor N. Gregory Mankiw and Thomas Baranga

Thomas Baranga's office hours: Tues 2-3 pm, Weds 3-4 pm, Fri 10-11 am, in Littauer 111

#### **Section Leaders**

Ken Abante, Abdullah Al Bawardy, Samuel Atwell, Thomas Baranga, Hugues Boulnois, Willy Chotzen-Freund, Joanna Cornell, Zachary Dearing, Nicole Gilmore, Diana Goldemberg, Ian Ferrell, Maria Florez, Veronica Fulton, Abhisek Ghosh, June Han, Joe Meeker, Li Pan, Guillaume Sajust de Bergues, Jordan Shapiro, Erin St. Peter, Richard Sun, Adam Watkins, Spencer Welch, Megan White, Steve White, Yizi Yang, Lena Yoon

#### **Course Office**

107 Littauer Center, 495-2167, Paul Kelso. The office is open from 8:30 a.m. - 4:00 p.m. Monday through Friday. Our email address is: ec10@fas.harvard.edu.

#### **SYLLABUS**

The economist John Maynard Keynes wrote that "the ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood." In Ec 10a and Ec 10b, we hope to teach you these economic ideas and help you understand why they can be so powerful. Economics is not primarily a set of answers, but rather a method of reasoning, and it is valuable both for eventual economics concentrators and for those who plan no further work in the field.

In Ec 10b, we introduce you to the topics of economic growth, inflation, unemployment, the business cycle, the financial system, international capital flows and trade imbalances, and the impact of monetary and fiscal policy. By the end of this semester, you should be able to use the analysis practiced in the course over the entire year to form your own judgments about the major economic problems faced by the United States, the countries in the Eurozone, China, and by other countries as well.

#### **COURSE REQUIREMENTS**

#### Lectures and Sections

The course is taught in a mixture of lectures and sections, meeting every Monday, Wednesday, and Friday during the term. Sections do not meet on days with lectures; the full schedule of lectures and sections is on the course canvas site, as well as at the end of this syllabus.

Sections are important because they teach the principal tools of economics in an environment in which you can ask questions freely. All sections will cover the same material and take the same exams. The lectures (which meet in Sanders Theatre from 12-1.15) will focus on current economic problems and policy issues. **The lectures are not always in lockstep with the sections, nor are they intended to be.** The goal of the lectures is to provide you with perspectives on the applicability of economics, and to introduce you to some of the fascinating fields that some of the Harvard faculty are exploring. In some ways, you can think of the lectures as a sneak peak into the department and into the many, many fields of economics.

#### Exams

During the semester, there will be exams at 7:40pm on February 27<sup>th</sup> and April 3<sup>rd</sup>, and a final exam at 9am on May 10th The exams cover material from lectures, sections, and the readings. More information on the content of each exam will be posted on the course's Canvas site. No communication is permitted between or among students during an exam. Calculators, books, notes and papers are not permitted. Violation of the examination rules or dishonesty in an examination will result in disciplinary action. Ec10 has a zero tolerance policy on cheating. All instances of suspected cheating will be referred to the Administrative Board.

IMPORTANT: If you CANNOT make our evening exam times, we STRONGLY encourage you to reconsider enrolling in Ec10b. We do NOT give make-up exams, and while we certainly welcome all interested students, our exam policy will not allow us to accommodate those with evening commitments on those exam days.

#### Quizzes

There will be five quizzes, which will be available to you on MindTap, when you log into your Cengage account. You will require access to MindTap to submit quizzes, which are worth 5% of your grade (for more on MindTap, see our Required Text section, and our section on online resources).

More basic in nature than the Problem Sets, quizzes are designed to act as a quick first gauge of how well you understand basic and central concepts in a particular chapter, and to provide written explanations of areas where you might have gaps in understanding.

Each quiz should take about 20 minutes or so to complete. You do not have to finish a quiz in one sitting, and can save your answers and revisit them later if you are not ready to submit them for grading. Because each quiz covers a few chapters, you might answer the questions referring to chapter 10 one day, and later in the week return to the quiz to answer questions referring to chapter 11. **Once you submit your answers for grading you will not be able to change them, even if it is before the deadline.** 

#### **Problem Sets**

There will be six problem sets during the term. **Problem sets are designed to be challenging, and to take time and thoughtful consideration.** They are not meant to be direct applications of section material (in contrast to quizzes), instead they are meant to test and push your understanding of the material. They are, in many senses, where the rubber meets the road.

Problem sets will be available to you on MindTap when you log into your Cengage account. You will require access to MindTap to complete the problem sets, which are worth 15% of your grade. Each problem set consists of some questions that must be answered and submitted online, and typically also one or two long-answer question(s) and/or graphs to be answered on paper and handed in to your Section Leader. All parts of the problem set are graded (the electronic parts are worth 10% of your grade, and the hand-written parts are worth 5% of your grade).

We encourage students to discuss the problem set questions with one another. However, each student should independently solve and submit the online portion of the problem set in their own MindTap account, and write (for the long-answer questions) and submit their own problem set solutions in section. We have, however, adopted a sanctioned system of group problem set submission, whereby a group of up to three students from the *same* section may submit a single response to a long-answer question (each student still has to submit their online part of the problem set). Each student in any problem set group will receive, for the long-answer question, the mark given to that group's submission. Participation in this system is VOLUNTARY. As you learned from Professor Laibson last semester, group problem set submission is an "opt in" system rather than an "opt out" one.

Assignment	Issued	Due
Quiz 1	2/1	2/8
Problem Set 1	2/8	2/15
Problem Set 2	2/15	2/22
Quiz 2	2/18	2/25
Problem Set 3	3/1	3/8
Quiz 3	3/4	3/11
Problem Set 4	3/22	3/29
Quiz 4	3/25	4/1
Problem Set 5	4/5	4/12
Problem Set 6	4/19	4/26
Quiz 5	5/1	5/8

#### SIMULTANEOUS ENROLLMENT

Simultaneous enrollment in Ec10b and another 12 p.m. course that meets Mondays, Wednesdays, and Fridays is **not** permitted. Lecture attendance is mandatory. Lectures are *not* videotaped.

#### **PREREQUISITES**

Ec10a is recommended but not required. If you want to take Ec 10b before taking Ec 10a, we recommend that you brush up on the topics of supply and demand, the marginal product of factors of production, and household saving decisions). A good grasp of Chapter 4 of Mankiw's Principles of Economics ("The Market Forces of Supply and Demand") is essential. In addition, ask your section leader about the different sources of practice and support for students in Ec 10b.

The only mathematics used is elementary high school algebra. We will *not* use calculus. The Department of Economics strongly encourages students considering a concentration in economics to take this course in their freshman year, as Ec10a and Ec10b are both required of all economics concentrators.

#### RESECTIONING

Those students who took Ec10a and are continuing in Ec10b will receive an email from their Ec10a section leader as to when and where their section will meet this semester. The vast majority of section leaders, sections and times will not change from last fall, so returning students will be automatically sectioned back into their old section. If you are continuing from 10a in the fall and would like to request a change of section, please write to Paul Kelso (pkelso@fas.harvard.edu) with your preferred section times. Also, a few of our section leaders from last fall are not returning – if you were in one of those sections, you will receive an email from the Ec 10 office by the evening of Sunday Feb 3<sup>rd</sup>, telling you where to go on Monday for your first section.

If you have a conflict between your section meeting and another course, you will need to resection for Ec 10b. If you need to resection for Ec 10b, please visit the Ec 10 office by Friday, 2/1 to be placed in a section.

### REQUIRED TEXT AND OTHER READINGS

You will require a subscription to MindTap in order to submit the course's mandatory problem sets and quizzes. Your MindTap subscription will also provide you with access to additional practice and support materials (such as graphing tutorials, customizable multiple choice practice tests, and a mobile app to test your knowledge on the go). In addition to MindTap, the course makes use of Mankiw's Principles of Macroeconomics. A hard copy of the textbook is on reserve at Lamont.

The Ec 10 office has negotiated a steep discount for the following full-year package: Mankiw's Principles of Microeconomics + Principles of Macroeconomics 8<sup>th</sup> edition, loose-leaf version + MindTap Economics, 2 terms (12 months) access. The price for this bundle is \$131.65 and includes all the materials you need for Ec10b. The two-semester bundle is significantly cheaper than the one semester bundle, and to our knowledge, is the cheapest possible way to obtain access to MindTap and the textbook. **Professor Mankiw will donate to charity all royalties earned from Ec 10 students' purchase of these materials.** 

A second source of readings is the "Spring Readings", prepared especially by and for Ec10. Links to these readings are posted on our course website. The readings predominantly comprise of journal articles. The goal of these readings is to stretch your economics muscles, to expose you to relevant current research in the field. These additional readings are optional.

Finally, the course website hosts <u>Helpful Hints</u>. These generally cover analytic material. Most of the material in the Helpful Hints will reinforce what you will learn in section, but there will be some material in them that will not be discussed in class.

#### **FREE LUNCH!**

Don't let anybody tell you there is no such thing as a free lunch. Many of our guest speakers will be having lunch after their lecture with Professor Mankiw and some section leaders, and we will invite students interested in attending to enter a lottery to join them. Keep your eyes peeled for announcements of lunch lotteries before each lecture.

#### **Unit Review Program**

The Unit Review Program (URP), as its name implies, is a source of support for Ec 10 students. The URP helps you measure your grasp of the course material, gives you practice solving problems, and offers you informal tutoring in a low-stress environment.

#### 1. How It Works

For each unit of material, you choose an evening to stop by the URP, and answer a set of written Unit Review Problems. An upperclass undergraduate (the "tutor") then evaluates your answers and discusses them with you in small groups or in a one-on-one session (whenever possible). If your answers are almost completely correct, you earn a "Pass" and receive a small boost to your semester percentile score, which could potentially affect your overall letter grade (see the section on grading below). If the tutor does not feel that you are in command of the material, you receive an "Incomplete." There is no penalty if you receive an "Incomplete." The tutor will either recommend trying another set of Unit Review Problems immediately, or will suggest that you review the material before attempting to solve Unit Review Problems once more.

### 2. The Goal of the URP

Solving Unit Review Problems reinforces your understanding of the material and gives you a chance to judge your comfort level as well as get real-time feedback and discussion. When the URP is quiet, tutors are also available to answer your questions on Ec 10 material more broadly, i.e. serve as drop-in tutors. The best time to take advantage of the URP's tutoring function is early in a testing session, rather than just before the deadline.

#### 3. Material Covered

Unit Review Problems cover material taught in section; they do not include lecture material. You have as much time as you need to solve Unit Review Problems (as long as you finish before the Unit Review session is over), but plan on spending about a half an hour on a review. You may not use notes or receive help from other students – remember, the goal is to gauge your own understanding!

#### 4. Mechanics

Unit Review Problems are offered at the end of each unit, and run for eight days, typically on Monday, Tuesday, Wednesday, Thursday, and Sunday evenings, starting at 6:30 p.m. All completed answers must be *turned in* by 9:00 p.m. You should bring paper and a pen or pencil with you. Looseleaf paper will often, but not always, be available. The schedule and location for the URPs will be posted on the Ec10 website.

All students are divided into groups with specific deadlines for solving Unit Review Problems. The group names refer to *the first letter of your section leader's last name*. The order of the deadlines rotates for fairness. If you miss a deadline, you may still go to the URP and solve Unit Review Problems for practice, but *you will not receive credit for them*. To be fair to all students, Unit Review Problem deadlines are firm, and there are no exceptions. If you have any questions about the URP, you may ask your section leader or contact Stacey Gelsheimer, the URP Coordinator, at

**Ec10unitreview@fas.harvard.edu.** The Ec 10 office staff cannot help you with questions about the URP.

#### **General Education Credit**

For students graduating in 2019:

- You may count the combination of Economics 10a and 10b to fulfill either <u>EMR</u> or <u>USW</u> (but not both), when you complete both courses with passing letter grades before Fall 2019.
  - o If you have fulfilled the SW or USW requirement with a course that carries Gen Ed credit, you may count *either* Econ 10a *or* 10b for SW or USW (with passing letter grades, completed before Fall 2019).

For students graduating after 2019:

- Ec 10a *and* Ec 10b, taken before Fall 2019, can count for EMR or USW, but not both; credit will then be appropriately transferred to the <u>new College requirements</u>.
  - o If the combination of Ec 10a and Ec 10b are used for this purpose, neither may be used to fulfill the Social Sciences distribution requirement (see below).
- Ec 10a and Ec 10b, taken any time, can be used to fulfill the EMR requirement.
- Ec 10a or Ec 10b, taken any time, can fulfill the new distribution requirement in the Social Sciences as long as neither is used to fulfill USW or EMR (or the equivalent new requirements). See note above.
  - o This will not be reflected on your Academic Advising Report until Fall 2019, when all returning students will be transitioned to the <u>new College requirements</u>.

Please contact the Program in General Education with any additional questions: <a href="https://generaleducation.fas.harvard.edu/questions">https://generaleducation.fas.harvard.edu/questions</a>

### **Economics Concentration Requirements**

Ec 10a and Ec 10b are required courses for both economics concentrators and students pursuing a secondary in Economics. However, students who wish to place out of Ec 10a and or Ec 10b can replace each waived course by taking an additional upper-level Economics elective instead.

#### **GRADING**

The grade distribution in Ec 10a and in Ec 10b is intended to match roughly the grades in other large General Education courses. Basic semester grades are determined by the final exam (40%), the two midterm exams (20% each), and problem sets (15%: 10% for the online questions, 5% for long-answer questions) and quizzes (5%).

Small groups of section leaders grade the exams for another group of sections together. This system ensures that your section leader will not have to "squeeze" your section into a particular curve, that your exams will not be at the mercy of a large, impersonal exam-grading machine, and that your own section leader will never grade your material. We do not provide letter grades for individual exams. Instead, we focus on the raw scores that you receive on tests. At the end of the semester, we add up all the raw scores you have earned in the course, calculating a weighted average. We use the resulting weighted average to determine your percentile ranking, which in turn determines your letter grade.

For each Unit Review "Pass" that you obtain, your semester percentile score will be raised by one point on the 100-point scale that Section Leaders use to determine letter grades. So if your exams and problem sets put you at the top of a letter grade range, a "Pass" on each of the five Unit Reviews will push you into the next higher grade. If you take no Unit Review Problems, you will get the letter grade indicated by your exam and problem set average. In other words, we do not "recurve" the grades after adding in the Unit Review "Passes."

If you want to take the course pass/fail, bring a pass/fail form to the Ec 10 office (the relevant form should appear, pre-populated, in your student portal after the course registration deadline). Please check your own department's rules on grading status; for example, the Economics Department does not permit concentrators to take either Ec 10a or Ec 10b on a pass/fail basis.

#### **REGRADE REQUESTS**

If you believe there is a substantive or arithmetic error in one of your exam grades, you may bring it to the Ec 10 office for a regrading. Bring a written explanation of your request, as well as your entire exam. The entire exam will be regraded (your score could go up or down). The deadline to submit regrade requests is within one week of the in-section distribution of graded exams.

#### **ONLINE RESOURCES**

#### Our Canvas site hosts:

- The syllabus
- The course schedule (section and lecture dates, problem set schedule, quiz schedule, reading assignment due dates)
- Announcements (such as office hours).
- URP information
- Detailed problem set answer keys
- Helpful Hints
- Exam prep material A collection of past years' exams and their answers these are posted a few days prior to exams
- Links to the readings
- A list of the available sources of support for Ec 10b students.
- The link to Cengage this is the online textbook publisher. When you purchase your textbook at the Coop, you will obtain a Cengage log-in access code, which will provide you access to MindTap, which houses our problem sets, quizzes, and other useful material. Speaking of which...

The MindTap URL is <a href="https://www.cengage.com/dashboard/#/course-confirmation/MTPNDZ4NZB18/initial-course-confirmation">https://www.cengage.com/dashboard/#/course-confirmation/MTPNDZ4NZB18/initial-course-confirmation</a>

#### This site hosts:

- Problem sets
- Ouizzes
- Adaptive Test Prep (a little "A+" icon on the right hand side of the website) allows you to build customized quizzes to test and solidify your understanding of the material before exams
- An online version of the book
- A fully electronic version of the textbook, and a bunch of other useful support material.
- (there's also a MindTap mobile app you may want to download so you can quiz yourself when you're waiting at the doctor's office or biking on your stationary bike etc.)

The MindTap access purchased by students continuing from the fall is still valid this semester, and you should not need to reenter your access code (that you purchased at the Coop). However, you will need to enter the spring course's course key, to link your MindTap account to our spring course site (which is not the same as the fall's). The spring course key is: MTPNDZ4NZB18

#### A closing note:

If you have any comments or concerns about your section or section leader (or anything else about the course), please email the Ec 10 office at ec10@fas.harvard.edu. We take your opinions seriously and any conversation is completely confidential.

# SKELETAL SCHEDULE

Jan 28 N	MANKIW	Mar 18	Spring Break
Jan 30 N	MANKIW	Mar 20	Spring Break
Feb 1 J	IM STOCK	Mar 22	Spring Break
Feb 4 D	DM1	Mar 25	SF1
Feb 6 R	RE1	Mar 27	JEREMY STEIN
Feb 8 R	RE2	Mar 29	SF2
Feb 11 N	MARTIN FELDSTEIN	Apr 1	JASON FURMAN
Feb 13 R	RE3	Apr 3	EXAM #2
Feb 15 R	RE4	Apr 5	SF3
Feb 18 H	Holiday – Presidents' Day	Apr 8	SF4
Feb 20 R	RE5	Apr 10	LARRY SUMMERS
Feb 22 N	MPLR1	Apr 12	SF5
Feb 25 N	MPLR2	Apr 15	SF6
Feb 27 E	EXAM #1	Apr 17	ALBERTO ALESINA
Mar 1 K	AREN DYNAN	Apr 19	SF7
Mar 4 M	MPLR3	Apr 22	MANKIW
Mar 6 O	DE1	Apr 24	MANKIW
Mar 8 O	DE2	Apr 26	SF8
Mar 11 O	DE3	Apr 29	MANKIW
Mar 13 K	EN ROGOFF	May 1	FT1
Mar 15 O	DE4		

# **SECTION READINGS**

# **Unit I: The Data of Macroeconomics (DM)**

Sections	Textbook	Helpful Hints and Handouts
DM1	Chapter 23	Handout 1
	Chapter 24	

# Unit II: The Real Economy in the Long Run (RE)

Sections	Textbook	Helpful Hints and Handouts
RE1	Chapter 25	Decomposition of C/pop
RE2	Chapter 26	
RE3	Chapter 27	Present Discounted Value
RE4	Chapter 27	Handout 2, Bond Pricing, Consols, and Financial Intermediation
RE5	Chapter 28	Handout 3

# **Unit III: Money and Prices in the Long-Run (MPLR)**

Sections	Textbook	Helpful Hints and Handouts
MPLR1	Chapter 29	
MPLR2	Chapter 29	The Money Multiplier
MPLR3	Chapter 30	

# **Unit IV: The Macroeconomics of Open Economies (OE)**

Sections	Textbook	Helpful Hints and Handouts
OE1	Chapter 31	Exchange Rates
		Net Export Demand
		International Accounting
		Handout 4
OE2	Chapter 32	
OE3	Chapter 32	
OE4	Chapter 32	

# **Unit V: Short-Run Fluctuations (SF)**

Sections	Textbook	Helpful Hints and Handouts
SF1	Chapter 33	Aggregate Demand Components Handout 5
SF2	Chapter 33 Chapter 34 pp 746-51	Aggregate Demand The Opportunity Cost of Holding Money
SF3	Chapter 33	Long-Run Aggregate Supply Macroeconomic Equilibrium Short-Run Aggregate Supply
SF4	Chapter 34	Monetary Policy and the AS-AD Model
SF5	Chapter 34	The Simple Government Spending and Tax Multiplier
SF6	Chapter 34 Chapter 35	Fiscal Policy and the AS-AD Model Reconciling SR & LR Macro Models
SF7	Chapter 35	The Inflation-Unemployment Relationship Handout 6 Supply Shocks
SF8		Handout 7

# **Unit VI: Final Thoughts (FT)**

Sections	Textbook	Helpful Hints and Handouts
FT1	Chapter 36	