## Syllabus for Econ 1010b: Intermediate Macroeconomics (as of 10/03/2023; subject to change)

#### Fall 2023

Lectures: Mon, Weds 10.30-11.45, Harvard Hall 101

Dr. Thomas Baranga baranga@fas.harvard.edu

Office hours: Tues 10.00-12.00, Thurs 14.00-15.00, Fri 10.00-11.00 (Littauer 111 and on Zoom)

#### Section Leaders

**Emanuel Schertz** 

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Section: Thurs 10.30-11.45 (Sever Hall 109) & Thurs 13.30-14.45 (9/28 only, Lowell House W109 Pines

Seminar Room; remainder of semester, Memorial Hall 29)

Office hours: Tues 14.00-15.00 (Lamont Library 230) & Thurs 15.00-16.00 (Lowell House Screening Room)

Gaurav Saraf

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Section Thurs 13.30-14.45 (Science Center 304) Office hours Mon 16.30-17.30 (Lamont Library 240)

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Section: Thurs 16.30-17.45 (Science Center 304) Office hours Thurs 17.45-18.45 (Science Center 304)

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Section: Fri 12.00-13.15 (Science Center 304) Office hours: Fri 13.30-14.30 (Science Center 304)

Avi Gulati

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Section: Fri 15.00-16.15 (Science Center 304) Office hours: Fri 16.15-17.15 (Science Center 304)

This course provides an overview of macroeconomic theory and the role and effects of governments' macroeconomic policy. We will apply these ideas to understand some of the current debates about the US macroeconomy, such as the impact of the COVID pandemic and the causes of and possible policy responses to inflation. We will discuss different and competing theories, try to understand what is at stake in the debate between rival schools of thought, and examine data to evaluate their relative merits. The first half of the class will study the long-run behavior of the macroeconomy (such as GDP and its growth, inflation, the role of labor and capital markets, and the open economy). The second half of the class will study business cycle fluctuations in general and the policy responses to recent recessions and high inflation in particular.

## **Prerequisites**

Students should have taken the equivalent of a year-long introductory course in microeconomics and macroeconomics, either at Harvard (ie Ec 10a and Ec 10b) or high school (eg a score of 5 on both AP exams, an A in economics A-level, or a score of 7 on the International Baccalaureate). We will also assume that students are familiar with calculus to the level of Math 1a. The course will only use calculus very sparingly, and typically in conjunction with an intuitive non-calculus explanation. Students should be comfortable with taking a derivative, but the class will emphasise a nonmathematical presentation in general. Students do not need to have taken Ec 1010a (Intermediate Microeconomics) or a class in statistics.

### Course Preview Period

I will hold an introductory meeting at 10.00 am on Monday August 21st to introduce myself and the teaching team, review the course structure, organization, and topics covered, and take questions. This will be hosted on Zoom, accessible via the class's <u>Canvas</u> website, and will be recorded and posted on Canvas afterwards for students unable to attend live.

## Class Meetings

#### Lectures

Lectures meet twice a week in person, on Mondays and Wednesdays. Lectures will not be recorded.

#### Section

Section is an integral and required part of the class. New (and potentially testable) material that is not covered in lecture will be taught in section, and you will have more opportunity to ask questions and engage with both your instructor and your peers in section than in the main lecture. We will not take attendance but rely on your keen sense of your own best interests to ensure that you regularly attend section.

We will collect preferences over different section times via a <u>Google form</u>. The section preference form will open on Friday September 1<sup>st</sup> and will close on Monday September 4<sup>th</sup>. We will email you to confirm your section assignment, and sections will start meeting on Thursday/Friday September 14<sup>th</sup>/15<sup>th</sup>.

Please attend the section to which you have been assigned. The spirit of section is to provide a small group setting for discussion, and that is best served by maintaining a uniform distribution of students across the different sections. If you have a compelling reason why your section assignment does not work for you, please email me, but otherwise please try to attend your assigned section.

### **Economics Concentration Requirements**

This class (with a letter grade of B- or better) satisfies the economics concentration and secondary field's intermediate macroeconomic theory requirement. If you anticipate concentrating in Applied Math/Econ then you should take Ec 1011b in the spring instead, as Ec 1010b is not accepted by AM/Ec for their concentration requirement.

Students enrolled in Ec 975b to fulfil their economics concentration intermediate macroeconomic theory requirement should attend lecture and section and complete all assignments.

## **Accommodations**

Students needing academic adjustments or accommodations because of a documented disability must present their Faculty Letter from the <u>Disability Access Office (DAO)</u> and speak with the professor by the end of the second week of the term, (Sept 15<sup>th</sup> 2023). Failure to do so may result in the Course Head's inability to respond in a timely manner.

#### Canvas

The course's Canvas page is <a href="https://canvas.harvard.edu/courses/121721">https://canvas.harvard.edu/courses/121721</a>

This will host the syllabus, calendar, discussion board, problem set questions and solutions, lecture slides, suggested readings, and information about the exams.

#### Course Policies

#### Attendance

Attendance will not be taken at lecture or section and is not part of your final grade. However attendance is expected and if you are unable to attend lecture or section due to a conflict or personal circumstances please notify me or your section leader so that we are aware of your absence and can share any important information that might not be in the slides.

### Pass/Fail

If you would like to take the class pass/fail, you can generate a petition form in your my.harvard account. Students are welcome to take the class pass/fail. However please note that to concentrate in economics or to use the class to fulfil a secondary field requirement in economics you must take the class for a letter grade.

#### Regrades

If you believe there has been an error in grading of your problem sets or midterm exam, please email me with a written explanation of the grading error within one week of when the graded work was returned to you.

## <u>Assignments</u>

There will be five problem sets (5% each, 25% of final grade) over the course of the semester, one midterm exam (25% of final grade), and a final exam (50% of final grade).

#### **Problem Sets**

Problem sets will be posted and submitted on Canvas. You are encouraged to discuss them with your classmates, and with me and your TF in office hours. You can form study groups to work on the problem sets together. However each student must submit their own individual problem set answers, and in the case of written answers, is expected to phrase them in their own words. You should not use generative AI such as ChatGPT for assistance on the problem sets. Violations of this policy will be considered academic misconduct.

The schedule for problem set assignments is

	Assigned	Due
PS1	Sept 15th	Sept 22 <sup>nd</sup>
PS2	Sept 29th	Oct 6th
PS3	Oct 6 <sup>th</sup>	Oct 13th
PS4	Oct 27 <sup>th</sup>	Nov 3 <sup>rd</sup>
PS5	Nov 17th	Dec 1st

#### Exams

There will be a midterm exam and a final exam. The midterm will be held in class on Oct 23<sup>rd</sup>. The final exam will be cumulative (cover the entire course) and will be held 2-5 pm on Monday December 18th.

If you cannot sit the midterm exam, a make-up will not be offered but it is possible to transfer the grading weight that would have applied to it to the final exam with valid extenuating circumstances. If you are in an athletics team that is on the road that day, you may be able to sit the exam remotely proctored by your coach, or can transfer the weight onto the final exam.

## Course Materials

## **Required Readings**

"Macroeconomics," by N. Gregory Mankiw, 11th ed. (2022), Worth Publishers. NB this is not the same book as the Macroeconomics half of Professor Mankiw's two volume "Principles of Economics". The textbook will provide the core set of readings for the course, which we will supplement with journal articles. The 11th edition of the book is available for sale or rent from several outlets:

#### Amazon:

https://www.amazon.com/Macroeconomics/dp/1319263909/ref=tmm pap swatch 0? encoding=UTF8& qid=1661525152&sr=8-1

or from the publisher directly:

https://store.macmillanlearning.com/us/product/Macroeconomics/p/1319263909

You may find second-hand/earlier editions significantly cheaper. While there have been some changes from previous editions, these are mostly updating of economic data, and the theoretical content is mostly similar across editions. We will usually present data that is updated relative to any of the editions in the lecture slides and materials, so earlier editions of the book are also fine to use.

You do not need to purchase or rent the Achieve Essentials add-on package which includes the publisher's suite of questions and study guides.

## **Suggested Readings**

In addition to the textbook, lectures will discuss ideas and data drawn from journal articles, which you are encouraged to read for deeper understanding and a broader context. Material discussed from articles in lecture or section will be considered testable, but material from these articles that is not explicitly discussed in class will not be examined. These readings will be posted on the course's Canvas website.

The macroeconomy is frequently in the news, and it will consolidate your understanding of the topics discussed in class if you follow current issues as they develop in the pages of *The Economist*, the *Financial Times*, or the *Wall Street Journal*.

# Prospective Course Schedule - Subject to Change

Date	Format	Topic	Readings
6-Sep	Lecture	Intro and GDP	Ch 2.1
11-Sep	Lecture	GDP	Ch 2.1, Feldstein (2017), The Economist (2016)
13-Sep	Lecture	Inflation	Ch 2.2, Nordhaus (1998)
15-Sep	Section	Labor market	Ch 2.3, Ch 7.4, Krueger (2017)
18-Sep	Lecture	Aggregate production function	Ch 3.1-3.2
20-Sep	Lecture	Income distribution	Ch 3.2, Karabarbounis and Neiman (2014)
22-Sep	Section	Inequality in the US	Piketty and Saez (2003), Alvaredo et al (2013), Smith et al (2019)
25-Sep	Lecture	Loanable funds market	Ch 3.3-3.4
27-Sep	Lecture	Money and banking	Ch 4.1-4.2
29-Sep	Section	Money, central banking, and inflation	Ch 4.3, Ch 5.1
2-Oct	Lecture	Interest rates and inflation	Ch 5.2-5.7, Cochrane (2022)
4-Oct	Lecture	Open economy loanable funds	Ch 6.1-6.2
6-Oct	Section	Exchange rates and trade	Ch 6.3
11-Oct	Lecture	Capital accumulation and growth	Ch 8
13-Oct	Section	Population & productivity growth	Ch 9.1-9.2
16-Oct	Lecture	Solow & endogenous growth models	Ch 9.2-9.3
18-Oct	Lecture	Empirical evidence on growth	Ch 10.1, 10.3, Acemoglu, Johnson & Robinson (2001), Mankiw, Romer & Weil (1992)
20-Oct	Section	Midterm Review	
23-Oct	Lecture	Midterm exam	Ch 1-6, 8-10 + other readings through 10/18
25-Oct	Lecture	Growth accounting and inequality	Ch 10.2, Hall & Jones (1999), Hendricks & Schoellman (2018), Piketty (2015), Acemoglu + Robinson (2015)
27-Oct	Section	Large open economy (long run)	Ch 6 Appendix
30-Oct	Lecture	Unemployment	Ch 7, Krueger (2015), Clemens (2019), Yellen (1984)
1-Nov	Lecture	The Keynesian cross and multiplier	Ch 11.2, 11.4, Ch 12.1
3-Nov	Section	The business cycle	Ch 10.2, Ch 11.1, Mankiw (1989)
6-Nov	Lecture	The IS-LM model	Ch 12.1-12.3, Ch 13.1
8-Nov	Lecture	Effects of policy in the IS-LM model	Ch 13.1, 13.3
10-Nov	Section	Aggregate demand	Ch 11.3, Ch 13.2
13-Nov	Lecture	The Mundell-Fleming model (floating e)	Ch 14.1-14.2
15-Nov	Lecture	AS-AD model	Ch 14.6, Ch 15.1
17-Nov	Section	Fixed exchange rates and the large open economy (short run)	Ch 14.3, 14.5, Ch 14 Appendix
20-Nov	Lecture	Inflation and unemployment	Ch 15
27-Nov	Lecture	Stabilization policy	Ch 17
29-Nov	Lecture	2008-09 Financial crisis	Brunnermeier (2009), Cecchetti (2009), Krishnamurthy (2010)
1-Dec	Section	Government debt and deficits	Ch 18
4-Dec	Lecture	COVID crisis	Romer (2021), Romer and Romer (2022), Ball, Leigh, and Mishra (2022)

## Additional Readings – May be Updated as the Course Progresses

- Acemoglu, Daron and James A. Robinson, "The Rise and Decline of General Laws of Capitalism," *Journal of Economic Perspectives*, v.29 no.1, Winter 2015, pp. 3-28.
- Acemoglu, Daron, Simon Johnson, and James A. Robinson, "Colonial Origins of Comparative Development: An Empirical Investigation," *American Economic Review*, v.91 no.5, Dec 2001, pp. 1368-1401.
- Alvaredo, Facundo, Anthony B. Atkinson, Thomas Piketty, and Emmanuel Saez, "The Top 1 Percent in International and Historical Perspective," *Journal of Economic Perspectives*, v.27 no.3, Summer 2013, pp. 3-20.
- Ball, Lawrence, Daniel Leigh, and Prachi Mishra, "Understanding U.S. Inflation During the COVID Era," Brookings Papers on Economic Activity, Fall 2022
- Brunnermeier, Markus, "Deciphering the Liquidity and Credit Crunch, 2007-2008," *Journal of Economic Perspectives*, v.23 no.1, Winter 2009, pp. 77-100.
- Cecchetti, Stephen, "Crisis and Responses: The Federal Reserve in the Early Stages of the Financial Crisis," Journal of Economic Perspectives, v.23 no.1, Winter 2009, pp. 51-75.
- <u>Clemens, Jeffrey</u>, "Making Sense of the Minimum Wage: A Roadmap for Navigating Recent Research," Cato Institute Policy Analysis no.867, May 2019.
- Cochrane, John H., "Fiscal Histories," Journal of Economic Perspectives, Fall 2022, v.36 no.4, pp.125-146.
- The Economist, "Measuring Economies The Trouble with GDP," Apr 30th 2016.
- <u>Feldstein, Martin</u>, "Underestimating the Real Growth of GDP, Personal Income, and Productivity," *Journal of Economic Perspectives*, v.31 no.2, Spring 2017, pp. 145-163.
- Hall, Robert E. and Charles I. Jones, "Why Do Some Countries Produce So Much More Output Per Worker Than Others?" *The Quarterly Journal of Economics*, v.114 no.1, Feb 1999, pp. 83-116.
- <u>Hendricks, Lutz and Todd Schoellman</u>, "Human Capital and Development Accounting: New Evidence from Wage Gains at Migration," *The Quarterly Journal of Economics*, v.133 no.2, May 2018, pp. 665-700.
- <u>Karabarbounis</u>, <u>Loukas</u>, and <u>Brent Neiman</u>, "The Global Decline of the Labor Share," *The Quarterly Journal of Economics*, v.129 no.1, Feb 2014, pp. 61-103.
- <u>Krishnamurthy, Arvind</u>, "How Debt Markets Have Malfunctioned in the Crisis", *Journal of Economic Perspectives*, v.24 no.1, Winter 2010, pp.24-27.
- Krueger, Alan, "The History of Economic Thought on the Minimum Wage," *Industrial Relations*, vol.54 no.4, Oct 2015, pp.533-537.
- Krueger, Alan, "Where Have All the Workers Gone? An Inquiry into the Decline of the U.S. Labor Force Participation Rate," *Brookings Papers on Economic Activity*, Fall 2017, pp. 1-59.
- Mankiw, N. Gregory, "Real Business Cycles: A New Keynesian Perspective," *Journal of Economic Perspectives*, v.3 no.3, Summer 1989, pp. 79-90.
- Mankiw, N. Gregory, David Romer, and David N. Weil, "A Contribution to the Empirics of Economic Growth," *The Quarterly Journal of Economics*, v.107 no.2, May 1992, pp. 407-437.

- Nordhaus, William, "Quality Changes in Price Indexes," *Journal of Economic Perspectives*, v.12 no.1, Winter 1998, pp. 59-68.
- <u>Piketty, Thomas</u>, "Putting Distribution Back at the Center of Economics: Reflections on "Capital in the Twenty-First Century"," *Journal of Economic Perspectives*, v.29 no.1, Winter 2015, pp. 67-88.
- <u>Piketty, Thomas and Emmanuel Saez</u>, "Income Inequality in the United States, 1913-1998," *The Quarterly Journal of Economics*, v.118 no.1, Feb 2003, pp.1-39.
- Romer, Christina, "The Fiscal Policy Response to the Pandemic," Brookings Papers on Economic Activity, Spring 2021
- Romer, Christina D. and David H. Romer, "A Social Insurance Perspective on Pandemic Fiscal Policy: Implications for Unemployment Insurance and Hazard Pay," Journal of Economic Perspectives, Spring 2022, v. 36 no.2, pp. 3-28.
- Smith, Matthew, Danny Yagan, Owen Zidar, and Eric Zwick, "Capitalists in the Twenty-First Century," *The Quarterly Journal of Economics*, v.134 no.4, Nov 2019, pp. 1675-1745.
- Yellen, Janet, "Efficiency Wage Models of Unemployment," *American Economic Review*, v.74 no.2, May 1984, pp.200-205.