

# 1011B: Macroeconomics

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Spring 2024

Tu, Thu, 10.30 - 11.45am

Location: Science Center Hall C

Jan 22 – April 23

Syllabus date: January 31, 2024

**Course description.** This course covers similar material to 1010B but with more mathematical rigor. Topics include economic growth, cross-country income differences, climate change, consumer and firm behavior, business cycles, and macroeconomic policy.

We have three main goals for the semester:

- a) To help you better understand the world we live in, including the limits of what macroeconomics can explain.
- b) To teach you to think like a macroeconomist.
- c) To prepare you for future courses in economics.

Adrien will teach the first half of this course. Gabriel will teach the second half.

**Note: Students may only take one of Economics 1010B or Economics 1011B for concentration credit.**

**Course website:** <https://canvas.harvard.edu/courses/127783>

**Instructors:** Gabriel Chodorow-Reich and Adrien Bilal.

Gabriel: You can find my research at <https://scholar.harvard.edu/chodorow-reich/publications>. I am a graduate of Harvard College ('05, Social Studies) and an alumnus of this course (Spring '03).

- Office hours: TBA

Adrien: You can find my research at <https://sites.google.com/site/adrienbilal/>. I am not an alumnus of the course but still look forward to teaching it!

- Office hours: Tuesday 5-6pm (Littauer 212)

**Course staff:**

- a) Section leader: Rachel Pomerantz  
Contact: [rachelpomerantz@g.harvard.edu](mailto:rachelpomerantz@g.harvard.edu)  
Sections: Thursday, 1:30pm and 3pm (Emerson 104)  
Office hours: Wednesday 1:30-2:30pm (Littauer M42)
- b) Section leader: Arjun Nageswaran  
Contact: [anageswaran@college.harvard.edu](mailto:anageswaran@college.harvard.edu)  
Sections: Friday, 10:30am (Emerson 104) and 12pm (Sever 104)  
Office hours: Tuesday 8-9pm (Quincy DHall)
- c) Section leader: Ryan Xia  
Contact: [ryanxia@college.harvard.edu](mailto:ryanxia@college.harvard.edu)  
Sections: Friday, 1:30pm (Boylston 105) and 3pm (Sever 305)  
Office hours: Friday 5-6pm (Kates Tobin Room—Quincy Stone Hall Basement)
- d) Course assistant: Hyuntae Choi  
Contact: [htchoi@college.harvard.edu](mailto:htchoi@college.harvard.edu)  
Office hours: Tuesday 8-9pm (Lev DHall)
- e) Course assistant: Mads Groeholdt  
Contact: [madsgroeholdt@college.harvard.edu](mailto:madsgroeholdt@college.harvard.edu)  
Office hours: Wednesday 9-10pm (Eliot DHall)
- f) Course assistant: Krishi Kishore  
Contact: [kkishore@college.harvard.edu](mailto:kkishore@college.harvard.edu)  
Office hours: Monday 9-10pm (Cabot DHall)
- g) Course assistant: Rishi Mohan  
Contact: [rishimohan@college.harvard.edu](mailto:rishimohan@college.harvard.edu)  
Office hours: Saturday 9:30-10:30am (Mather DHall)

- h) Course assistant: Elliott Moksi  
Contact: [emoksi@college.harvard.edu](mailto:emoksi@college.harvard.edu)  
Office hours: Tuesday 4:30-5:30pm (Dunster DHall)
- i) Course assistant: Cristopher Rosas  
Contact: [Cristopher Rosas](#)  
Office hours: Monday 9-10pm (Adams DHall)
- j) Course assistant: Grace Wang  
Contact: [gracewang@college.harvard.edu](mailto:gracewang@college.harvard.edu)  
Office hours: Monday 8-9pm (Pfoho DHall)
- k) Course assistant: Alan Wang  
Contact: [acwang@college.harvard.edu](mailto:acwang@college.harvard.edu)  
Office hours: Tuesday 9-10pm (Quincy DHall)
- l) Course assistant: Henry Weiland  
Contact: [henryweiland@college.harvard.edu](mailto:henryweiland@college.harvard.edu)  
Office hours: Sunday 2-3pm (Mather DHall)
- m) Course assistant: Charlie Yang  
Contact: [charlieyang@college.harvard.edu](mailto:charlieyang@college.harvard.edu)  
Office hours: Monday 3-4pm (Dunster DHall)
- n) Course assistant: Megan Yeo  
Contact: [meganyeo@college.harvard.edu](mailto:meganyeo@college.harvard.edu)  
Office hours: Wednesday 5-6pm (Kates Tobins Room—Quincy Stone Hall Basement)
- o) Course assistant: Erik Zou  
Contact: [erikzou@college.harvard.edu](mailto:erikzou@college.harvard.edu)  
Office hours: Tuesday 8-9pm (Lev DHall)
- p) Course assistant: Shuheng Zhang  
Contact: [shuhengzhang@college.harvard.edu](mailto:shuhengzhang@college.harvard.edu)  
Office hours: Wednesday 8:30-9:30pm (Quincy DHall)

**Sections:** Sections in 1011B are an opportunity to review and discuss lecture material in a small class format. There are six sections per week, two by each TF (Rachel, Arjun and Ryan). The times and locations are listed above but subject to change. Section attendance is optional, but **highly recommended**.

**Office Hours:** Office hours are held by the professor, teaching fellows, and course assistants beginning in the second week of class. The time and location of office hours are listed above. In addition to the regularly-scheduled weekly office hours, course assistants will hold additional office hours before each problem set and midterm exam.

**Emails:** You are welcome to reach out to any of the course team members by email. If you do so, **always use subject line “1011B: [your subject]”** so that the email is not lost in overly aggressive spam folders!

**Prerequisites:**

- a) Introductory macroeconomics (Ec 10 or equivalent).
- b) Intermediate microeconomics (1010A or 1011A).
- c) Multivariable calculus (Math 21A). You **may not** take Math 21A concurrently.

**Grading:** Grades will be calculated from four weighted components: 15% problem sets, 25% midterm I, 25% midterm II, and 35% final. The midterms will be in class on February 22 and April 2. The date for the final exam will be set by the registrar. There is no paper option for this course. If you feel that a portion of a test has been misgraded, please send the Teaching Fellows a one-page written and detailed explanation of the misgrading within one week after you received the grade of the test. The Teaching Fellows may then ask to meet with you for clarification. The Teaching Fellows may then assess that there is no misgrading, or pass on the request to the Instructors for further assessment. At that point, if the Instructors decide on a regrading, we will then regrade the entire test, including the parts that you are not unhappy about. Be aware that regrades can lower the overall score. Requests outside this format will not be considered.

**Attendance and class participation:** Class starts promptly at 10:30am ET. Class participation should be a universal and inclusive experience. All students should be actively thinking about what is happening in lecture: try to restate key points in your head in your own words. If you don't see the logic, ask!

We will often pose open-ended questions to generate discussion. Please answer them!

**Problem sets:** There will be approximately eight problem sets. Problem set solutions must be submitted via Canvas before class on the due date and solutions will be made available on the web immediately after. Consequently, late problem sets will not be accepted. However, the lowest grade on a problem set (across all 8) will be dropped. Problem sets must be typeset using LyX or LaTeX and submitted as PDFs. We will hold an optional session to help you learn LyX or LaTeX if you have not encountered these programs already.

**Collaboration policy:** Students may collaborate on problem sets, but should acknowledge their collaborators and describe the extent of their collaboration at the top of the relevant assignments. Problem sets must be written up and submitted independently. While collaboration is allowed, directly copying someone else's work is not. Copying someone else's work can result in a requirement to withdraw from the College. Likewise, using answer keys to previous years' problem sets is not permitted.

**Discussion Forum:** We will use Ed for online discussions, including PSET and content questions. The link can be found on the Canvas page. We encourage you to monitor the forum and interact with your peers. When discussing the homework, please avoid posting your solution, but if needed, make the post private so only the teaching course can view your work. Also, please search before posting a question and use an existing thread for questions when possible. When you start a new thread, please use the correct category, a clear title, and attach any relevant information.

**Tutoring:** The Academic Resource Center (ARC) Beverly J. Duran Peer Tutoring Program connects Harvard students with a network of trained peers who can support their learning. ARC Peer Tutors provide an extra layer of academic support for students by reviewing critical concepts and materials from class, clarifying points of confusion, and developing study strategies for upcoming exams. In addition to this course, ARC Peer

Tutors support a wide variety of other courses as well. To book a tutoring appointment or request a Peer Tutor, visit their website <https://academicresourcecenter.harvard.edu/peer-tutoring>. Contact the ARC with questions at [academicresourcecenter@harvard.edu](mailto:academicresourcecenter@harvard.edu).

**Readings:** We have listed readings from the following textbooks:

- a) (K) Pablo Kurlat, *A Course in Modern Macroeconomics*. This book is available from <https://sites.google.com/view/pkurlat/a-course-in-modern-macroeconomics?authuser=0> in electronic or paperback form.
- b) (R) David Romer, *Advanced Macroeconomics, Fifth Edition*. The book is available from <https://www.amazon.com/Advanced-Macroeconomics-McGraw-Hill-Economics-David/dp/0073511374>. It covers similar topics to Kurlat but at a slightly more advanced and in-depth level.
- c) (M) N. Gregory Mankiw, *Macroeconomics, Ninth Edition*. This book is less mathematical than Kurlat or Romer.

We strongly recommend you to purchase and read the assigned parts of the Kurlat book and will assign some problems from it. You should purchase the Romer book if you prefer a more comprehensive and technical treatment of the topics and the Mankiw book if you prefer a less technical treatment. In addition, we have listed readings with embedded URLs from selected academic articles that we will cover extensively in class. Ultimately, you are responsible for the material covered in lecture, section, and the problem sets. The readings are intended to help you learn this material.

**Class schedule.** The schedule of classes is given below. The exact topics covered and the midterm dates are subject to change.

**First half, taught by Adrien.**

Lecture			Topic	Homework	Literature
1	Tuesday	23-Jan	Introduction to macroeconomics		K: 1.1
2	Thursday	25-Jan	Solow model		K: 3, 4.1-4.3, 5; R: 1.1-1.5
3	Tuesday	30-Jan	Consumption 1/2		K: 6
4	Thursday	1-Feb	Consumption 2/2	I due	K: 6
5	Tuesday	6-Feb	Neoclassical growth model		K: 4.4, 9.3; R: 2.1-2.5
6	Thursday	8-Feb	Evaluating neoclassical growth theory		K: 5.1-5.3; R: 1.6, 4.2
7	Tuesday	13-Feb	Cross-country income differences		K: 5.5; R: 1.7, 4; <b>Hall Jones (1999)</b>
8	Thursday	15-Feb	Endogenous Growth	II due	R: 3
9	Tuesday	20-Feb	— <i>Review</i> —		
10	Thursday	22-Feb	— <i>Midterm I</i> —		
11	Tuesday	27-Feb	Climate Change 1/2		<b>Nordhaus (1992)</b>
12	Thursday	29-Feb	Climate Change 2/2	III due	<b>Nordhaus (1992)</b>

**Second half, taught by Gabriel.**

Lecture			Topic	Homework	Literature
13	Tuesday	5-Mar	Monetary policy		<b>NYFed, Econofact</b>
14	Thursday	7-Mar	Housing — <i>Spring recess</i> —		
15	Tuesday	19-Mar	IS-MP	IV due	<b>Romer on IS-MP, M: 6, 11-1 (optional)</b>
16	Thursday	21-Mar	New Keynesian and ZLB I		<b>Krugman (1998)</b>
17	Tuesday	26-Mar	New Keynesian and ZLB II	V due	
18	Thursday	28-Mar	Inflation		K: 14.2-14.3
19	Tuesday	2-Apr	— <i>Review</i> —	VI due	
20	Thursday	4-Apr	— <i>Midterm II</i> —		
21	Tuesday	9-Apr	Financial system		R: 10.6; <b>Diamond Dybvig (1983)</b>
22	Thursday	11-Apr	Labor markets		K: 7.1, 7.6
23	Tuesday	16-Apr	Inequality	VII due	
24	Thursday	18-Apr	TBA		
25	Tuesday	23-Apr	— <i>Review</i> —	VIII due	

