

**Econ 546: Growth and Macroeconomics****Gaurav Chiplunkar****Fall 2016***Last updated: November 28, 2016*

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**Teaching Assistant:** Taha Choukhmane ([taha.choukhmane@yale.edu](mailto:taha.choukhmane@yale.edu))  
**Time:** Friday, 1:30 pm to 4:15 pm  
**Location:** A-51, Watson Centre  
60, Sachem Street

**Course description**

Economics 546 will provide you with a rigorous theoretical and empirical framework for understanding macroeconomic phenomenon, policy responses and innovations that are dominant in the public and academic discourse today. The course is broadly divided into two parts:

The first part of the course (until the midterm) examines the causes and consequences of economic growth. The wealth of nations is built over long stretches of time and what matters over this horizon are the real factors of production: labor, physical capital, technology, resources, human capital, institutions, and geography. We will begin with some empirical macroeconomic facts across countries today. This would be followed by understanding these facts through the lens of theoretical modeling, in particular, old and new growth models. Armed with the models, their predictions and pitfalls, we would turn our attention to understanding how health, education, institutions, innovation and globalisation shape the growth experience across countries.

The recent economic crises in the U.S. and Europe have spurred renewed interest among economists to understand consumption and saving patterns along with the connection between shocks/frictions in labor and financial markets and institutional/household responses to them. In the second part, we will begin by exploring the microeconomic foundations that influence macroeconomic policies: (i) household consumption and saving decisions; (ii) frictions in labor markets affecting firm and household employment decisions. We shall then turn our attention to understanding the causes of business cycles along with responses and innovations in fiscal and monetary policies to these cycles. Lastly, we shall use this framework to explore the cause of and response to the recent financial crisis.

The course will be primarily taught by Gaurav Chiplunkar but some topics shall feature guest lectures by leading experts like Prof. Tavneet Suri (MIT) and Prof. Robert Shiller (Yale University and Nobel Laureate 2013).

**Course material**

The text book for the course is *Macroeconomics 3rd Edition*, by Charles I. Jones. Additional required readings will be uploaded every week and you are expected to read them for discussions before class. The readings will consist primarily of short news articles, academic journal articles and chapters from books. Most of the articles are targeted toward a general audience of professional economists, but you will have the tools to understand them.

Along with the required readings, I strongly recommend that you read some combination of *The New York Times*, *The Financial Times*, *The Wall Street Journal*, and *The Economist*. All contain excellent articles on many of the topics we will cover in class, and each is available in a web edition.

**Pre-requisites for the course**

This course is a *graduate* level course in macroeconomics and is aimed at providing the rigor and tools to help understand macroeconomic phenomenon and arguments that are a large part of economic discourse today. Therefore, though the focus of the course would be largely applied and empirical, there would be a significant weight on theoretical foundations and macroeconomic models. Knowledge of basic calculus and statistics is essential. Some parts of the course would require understanding of basic econometric techniques (like OLS and IV) to be able to appreciate the empirical aspects of macroeconomic analysis. Basic knowledge in these areas would be useful.

**Course requirements and grading**

Problem sets and class participation	20%
Midterm exam	30%
Final exam	50%

*Problem Sets*

There will be six problem sets during the semester (some of which may be optional). The problem sets will give you a chance to solve problems similar to those that will show up on the exams and will also provide you with an opportunity to explore theoretic and empirical extensions of topics covered in class. You will have two weeks to solve problem sets. Collaboration is encouraged, but please mention the names of the students that you have collaborated with. Since your exams are going to be in class and closed-book and given past experience of students, I would suggest you attempt the problem set questions yourself first before collaborating.

*Exams*

There will be a closed-book *in class* midterm and final exam for the course, both of which will test your understanding of the material that has been taught in the course. The final exam shall be a comprehensive exam, but with an emphasis on topics covered since the midterm.

**COURSE DATES**

(Temporary Plan and Subject to Change)

#	<u>DATE</u>	<u>TOPICS</u>	<u>P.Set ASSIGNED</u>	<u>P.Set DUE</u>
1.	9 Sept	Introduction (Measurement and Growth Accounting)	PSet 1	
2.	16 Sept	Solow Model		
3.	23 Sept	New Growth Theory: Human Capital	PSet 2	PSet 1
4.	30 Sept	New Growth Theory: Health		
5.	7 Oct	Institutions & Growth		PSet 2
6.	14 Oct	<b>Midterm Exam</b>		
		<i>FALL BREAK</i>		
7.	28 Oct	Consumption & Savings	PSet 3	
8.	4 Nov	Labor Markets (Wages and Unemployment)		
9.	11 Nov	Business Cycles (Monetary and Fiscal Policies)	PSet 4	PSet 3
10.	18 Nov	Cancelled ( <i>Guest Lecture: Prof. Tavneet Suri</i> )		
		<i>THANKSGIVING BREAK</i>		
11.	2 Dec	Technological Innovations and Policy ( <i>Guest Lecture: Prof. Tavneet Suri</i> )		PSet 4
12.	9 Dec	Financial Crisis ( <i>Guest Lecture: Prof. Robert Shiller</i> )		
13.	TBD	Review Lecture and Final Exam		

## COURSE DETAILS

Before each class, you are expected to read all “required readings” listed below. The text book for the course is *Macroeconomics 3rd Edition*, by Charles Jones. Lectures will usually be a combination of both slides as well as the traditional blackboard. I will upload slides before lectures wherever applicable, but please remember to bring the required material you would need to take notes in class.

### Class 1: 9th September 2016

#### **Introduction, Measurement Issues, and Growth Accounting**

- Jones, Ch. 2, “Measuring the Macroeconomy.”
- Jones, Ch. 3, “An Overview of Long-Run Economic Growth.”
- Morten Jerven. 2010. “Random Growth in Africa? Lessons from an Evaluation of Growth Evidence on Botswana, Kenya, Tanzania and Zambia, 1965-1995” *Journal of Development Studies* 36: 1, pp. 73-94.
- “The Other-Worldly Philosophers”, *The Economist*, July 16 2009.  
<http://www.economist.com/node/14030288>
- Liu, Zheng. “Is China’s Growth Miracle Over?.” FRBSF Economic Letter 26 (2015).  
[http://www.frbsf.org/economic-research/publications/economic-letter/2015/august/china-economic-growth-miracle-slowdown/.](http://www.frbsf.org/economic-research/publications/economic-letter/2015/august/china-economic-growth-miracle-slowdown/)

### Class 2: 16th September 2016

#### **Growth Theory: Solow Model and Dynamics**

- Jones, Ch. 4 (skim), “A Model of Production.”
- Jones, Ch. 5, “The Solow Growth Model.”
- Pritchett, Lant. 1997. “Divergence, Big Time.” *The Journal of Economic Perspectives* 11(3): 3-17.
- (skim) Xavier Sala-i-Martin. 2006. “The World Distribution of Income: Falling Poverty and Convergence, Period.” *The Quarterly Journal of Economics*, 121(2): 351–397.
- “Which are the world’s fastest-growing economies?”, *World Economic Forum*, April 2016.  
<https://www.weforum.org/agenda/2016/04/worlds-fastest-growing-economies/>
- “The Growth of Growth Theory,” *The Economist*, May 18, 2006.  
[http://www.economist.com/node/6943519.](http://www.economist.com/node/6943519)

### Class 3 & 4 : 23rd & 30th September 2016

#### **New Growth Theory: Health and Human Capital**

- Jones, Ch. 6, “Growth and Ideas.”
- Mankiw G., Romer D., Weil D. 1992. “A Contribution to the Empirics of Economic Growth”, *Quarterly Journal of Economics*.
- Hall R., Jones, C. 2007, “The Value of Life and the Rise in Health Spending”. *The Quarterly Journal of Economics*. (Only Sections I-III)

- Bloom, D.E., Canning, D. and Sevilla, J., 2004. “The Effect of Health on Economic Growth: A Production Function Approach”. *World Development*, 32(1), pp.1-13.
- “National Health Spending to Surpass \$10,000 a person in 2016”, *The New York Times*, July 2016.  
<http://www.nytimes.com/2016/07/14/us/national-health-spending-to-surpass-10000-per-person-in-2016.html>
- “The Effects of Investing in Early Education on Economic Growth”, *Brookings Policy Brief Series*, April 2006.  
<https://www.brookings.edu/research/the-effects-of-investing-in-early-education-on-economic-growth/>.
- “Health and Wealth”, *The Economist*, Nov 2008.  
<http://www.economist.com/node/12637080>

#### Class 5: 7th October 2016

##### **Institutions and Economic Growth**

- Acemoglu, D., Johnson, S. and Robinson, J.A., 2001. “The Colonial Origins of Comparative Development: An Empirical Investigation”. *American Economic Review*, 91(5), pp.1369-1401.
- Greif, A., 1989. “Reputation and Coalitions in Medieval Trade: Evidence on the Maghribi Traders”. *The Journal of Economic History*, 49(04), pp.857-882.
- “Across the Globe, a Growing Disillusionment with Democracy”, *The New York Times*, Sept. 15, 2015.  
<http://www.nytimes.com/2015/09/15/opinion/across-the-globe-a-growing-disillusionment-with-democracy.html>
- “Glorious Revolutions and Their Discontents”, *The Economist*, Dec 4, 2013.  
<http://www.economist.com/blogs/freeexchange/2013/12/institutional-economics>.

#### Class 6: 14th October 2016

##### **Midterm Exam**

– FALL BREAK –

Class 7: 28th October 2016**Consumption and Savings**

- Jones, Ch. 16, “Consumption.”
- Jones, Ch. 17, “Investment.”

Class 8: 4th November 2016**Labor Market, Wages and Unemployment**

- Jones, Ch. 7, “The Labor Market, Wages, and Unemployment.”
- Daly, Mary C and Hobijn, Bart and Şahin, Ayşegül and Valletta, Robert G. 2012. “A Search and Matching Approach to Labor Markets: Did the Natural Rate of Unemployment Rise?” *Journal of Economic Perspectives*, 26(3): 3–26.
- “Trying to count China’s jobless”, *The Economist*, Aug 19, 2015.  
<http://www.economist.com/blogs/freeexchange/2015/08/unemployment-china?zid=295&ah=0bca374e65f2354d553956ea65f756e0>
- “Why French workers are so mad”, *The New York Times*, June 8, 2016.  
<http://www.nytimes.com/2016/06/09/opinion/why-french-workers-are-so-mad.html?rref=collection%2Ftimestopic%2FUnemployment>

Class 9: 11th November 2016**Business Cycles, Monetary and Fiscal Policy in the Short and Long Run**

- Jones, Ch. 11, “The IS Curve.”
- Jones, Ch. 12, “Monetary Policy and the Phillips Curve.”
- Jones, Ch. 13, “Monetary Policy Rules and Aggregate Demand.”
- Jones, Ch. 14, “The Great Recession and the Short-Run Model.”
- Woodford, Michael. 2010. “Financial Intermediation and Macroeconomic Analysis.” *Journal of Economic Perspectives*, 24(4): 21–44.
- Krugman, Paul. “The State of Macro is Sad (Wonkish)”. *The New York Times*, Aug 12, 2016.  
<http://krugman.blogs.nytimes.com/2016/08/12/the-state-of-macro-is-sad-wonkish>
- “The Global Secular Savings Stagnation Glut”, *The Economist*, April 3, 2015.  
<http://www.economist.com/blogs/freeexchange/2015/04/puzzles>

Class 10: 18th November 2016**Future of Money and Payments Systems**

(Guest lecture by Prof. Tavneet Suri, MIT)

- “The Great Chain of Being Sure About Things,” Economist Article, October 2015.
- “Bitcoin: Economics, Technology, and Governance,” Rainer Bhme, Nicolas Christin, Benjamin Edelman and Tyler Moore, *Journal of Economic Perspectives*, Spring 2015.
- Ali, Robleh, et al. “Innovations in payment technologies and the emergence of digital currencies.” Bank of England Quarterly Bulletin (2014): <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2014/qb14q3digitalcurrenciesbitcoin1>.

pdf.

- “New Kids on the Blockchain: How Bitcoins Technology Could Reinvent the Stock Market,” Larissa Lee (just sections I and II).
- (skim) “Mobile Money: The Economics of MPESA,” (2015) William Jack and Tavneet Suri. <http://web.mit.edu/tavneet/www/M-PESA-Final2.pdf>.
- (skim) “Risk Sharing and Transactions Costs: Evidence from Kenyas Mobile Money Revolution” by William Jack and Tavneet Suri, *American Economic Review*, January 2014.
- (skim) “Corporate Governance and Blockchains,” David Yermack, NBER Working Paper No 21802, [http://www.nber.org/papers/w21802?utm\\_campaign=ntw&utm\\_medium=email&utm\\_source=ntw](http://www.nber.org/papers/w21802?utm_campaign=ntw&utm_medium=email&utm_source=ntw).
- (skim) “Breaking Through the Zero Lower Bound,” by Ruchir Agarwal and Miles Kimball, WP/15/224. <https://www.imf.org/external/pubs/ft/wp/2015/wp15224.pdf>.

– THANKSGIVING BREAK –

Class 11: 2nd December 2016

**Financial Access, Inclusion and Policy**

(Guest Lecture by Prof. Tavneet Suri, MIT)

- Basu, Kaushik. “In India, Black Money Makes for Bad Policy” *The New York Times*, Nov 28 2016. [http://www.nytimes.com/2016/11/27/opinion/in-india-black-money-makes-for-bad-policy.html?\\_r=0](http://www.nytimes.com/2016/11/27/opinion/in-india-black-money-makes-for-bad-policy.html?_r=0)

Class 12: 9th December 2016

**Financial Crises: Cause and Responses**

(Guest Lecture by Prof. Robert Shiller, Yale)

Class 13: Date TBD

**Review Lecture**