Theory of Economic Growth

ECON 164

Instructor Info —

Levi Crews

Office hours: Tue 4:00–5:00PM

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Course Info ——

Prereq: ECON 102

Mon & Wed

9:30–10:45AM

Kaplan Hall 135

Overview

Why do economies grow? Why are some countries rich and others poor? Why have some grown so much faster than others? And what can policymakers do, if anything, to affect the growth rate of the economies they help manage? This course will provide a solid foundation to answer these questions using both the neoclassical and endogenous growth models. Additional topics may include innovation, technology diffusion, natural resource use, and population growth. By the end of the course, students will have a better understanding of some of the most important questions in all of economics.

Materials

Main Text
Jones, C.I. & Vollrath, D. *Introduction to Economic Growth*. 4th Ed. W.W. Norton & Company. 2024. ("JV")

Supplementary Texts
Weil, D.N. *Economic Growth*. 3rd Ed. Routledge. 2016.
Kurlat, P. *A Course in Modern Macroeconomics*. 2020. Ch. 1–5.
Helpman, E. *The Mystery of Economic Growth*. Harvard University Press. 2004.

Advanced Texts
Barro, R.J. & Sala-i-Martin, X. *Economic Growth*. 2nd Ed. MIT Press. 2004. ("BS")
Aghion, P. & Howitt, P. *The Economics of Growth*. MIT Press. 2009. ("AH")

Grading

The base grading scheme is as follows:

25%   Midterm Exam #1

25%   Midterm Exam #2

50%   Final Exam

I will drop the lower of the two midterm scores if the final exam score is higher. The weight from the dropped midterm will be put on the final exam. Requests for regrading will trigger a regrade of the entire exam, so keep in mind that your score may go down.

There will be six problem sets throughout the quarter. The problem sets are optional. You are nonetheless encouraged to complete them as practice for the exams. You may work in groups of up to three people, but you must turn in your own work. If you complete at least four problem sets to a reasonable level of quality, I'll bump your final course grade if you're on the border of two letter grades. If you complete all six to a reasonable level of quality, I'll also bump your final course grade by a half letter grade.

Attendance and participation at lecture are not mandatory but are highly encouraged.

Grades will be curved at the end of the quarter. Approximate letter grades will be provided at the end of each exam so you can track your performance.

Communication

Slides, problem sets, and additional readings will be posted on Bruin Learn.

Questions, discussions, and announcements will be conducted through Slack. Please join the Slack workspace by the end of Week 1 using this link.

Class Schedule (*tentative*)

Week	Topic	Reading / Date
Week 1	Facts + Math review	JV Ch. 1; Weil Ch. 1–2
		JV Appx. A
Week 2	The Solow model I	JV Ch. 2
	The Solow model II	
Week 3	Infinite-horizon optimization	Kurlat Ch. 6.2–3; BS Appx. A.3
	The neoclassical growth model	BS Ch. 2–3
Week 4	Evaluating neoclassical growth models	JV Ch. 3
	Growth and development accounting	JV Ch. 7.1, 7.4
Week 5	MIDTERM EXAM #1	Feb 2 (Mon) 9:30–10:45AM
	AK models	JV Ch. 11
Week 6	Ideas and innovation	JV Ch. 4
	The Romer model	JV Ch. 5
Week 7	The Schumpeterian model	JV Ch. 6
	Romer + Schumpeter wrap-up	
Week 8	Technology diffusion	JV Ch. 7.2–3, 7.5; BS Ch. 8
	Growth on a finite planet: Resources	JV Ch. 9
Week 9	Growth on a finite planet: Population	JV Ch. 10
	Review	
Week 10	MIDTERM EXAM #2	Mar 9 (Mon) 9:30–10:45AM
	US growth: Past and future	JV Ch. 12
Week 11	FINAL EXAM	Mar 19 (Thu) 3–6PM