

**The University of Florida
Department of Economics**

**ECO 4270, Economic Growth
Fall 2020 Syllabus**

Instructor:

Jonathan Adams adamsjonathan@ufl.edu

Office: MAT 333 **Online Office Hours:** Tuesdays 9:30 am - 11:30 am

Teaching Assistant:

Mitchell Babka babkam@ufl.edu

Class Schedule:

Mondays and Wednesdays, Periods 3-4 (9:35 am – 11:30 am)

Room: Online

Recommended Text:

David Weil, *Economic Growth*

Prerequisites:

ECO 2013, ECO 2023, & ECO 3101 (Up to intermediate micro)

Some specific tools you will need to apply from your intermediate micro and macro classes include: solving consumer problems with constrained optimization and multivariate optimization, and characterizing dynamics of economic aggregates with differential equations. We will review these tools. But you will be expected to understand several concepts without further explanation, such as: macroeconomic aggregates including GDP and investment, and consumer concepts including utility and budget constraints. The course will also require a considerable amount of calculus, so students should be comfortable with basic calculus, and should be familiar with multivariate calculus. Finally, students should be comfortable with basic statistics.

Midterm Exam:

A midterm will be held on Wednesday October 21st. It will be given in class.

Final Exam:

A comprehensive final exam will be held during the official examination period: Thursday December 17th from 12:30-2:30pm

Exam Philosophy:

The theory portion of the exams will test your understanding of the mathematical theories that you learn during lecture and on the problem sets. They will not generally be directly from the notes/homework though; usually they will feature a curveball to test your ability to solve

economic models and characterize dynamics without relying on rote memorization. The best way to prepare for these sorts of problems will be to make sure you fully understand the theoretical problem sets.

The applied portion of the exams will test your understanding of economic forces, empirical patterns, and broad conclusions from the lectures, readings, and problem sets.

Problem Sets:

There will be problem sets assigned most weeks. They will include data exercises and theory exercises. The best way to learn economics is to DO economics! So please take the opportunity to carefully learn from the problem sets.

Problem sets will always be assigned at least a week before they are due.

You may submit the data exercises in groups of up to three people. Theory exercises must be submitted individually.

The data exercises should be typewritten. The theory exercises may be handwritten, but be aware that illegible writing will be ignored and the work will be treated as incomplete. Economics involves a fair amount of math, so if you would like to typewrite your theory exercises I recommend the use of LaTeX instead of MS Word, especially if you are considering continuing with economics after college. I suggest the open source program Lyx (www.lyx.org) as a front-end for LaTeX. In other words, this free program makes LaTeX “as easy to use” as MS Word. You can find a useful tutorial at (<http://www.youtube.com/watch?v=m4cEAVmLegg>).

Grading:

Problem sets will account for **35%** of your grade. The midterm will account for **25%** and the final will account for **30%**. Class participation will account for the remaining **10%**. After all the scores are available, I will assign letter grades based on a curve. The specific distribution of the grades will depend on the class’s overall performance.

Your lowest problem set grade will be dropped. I will also allow each student one no-questions-asked 48-hour extension for a late problem set if they email the TA before the deadline. These are lenient policies, so *no other extensions or late problem sets will be allowed under any circumstances.*

Course Schedule

The fun part of the syllabus! We are going to learn a lot of fun and exciting economics this semester. Relevant chapters in the Weil textbook are listed for your supplementary reading. From time to time, I will suggest specific passages that you will be required to read. “Marquee theories” are economic models that you will learn in class and on problem sets, and will show up in some shape or form on an exam. The class will be roughly ordered as follows, although I reserve the right to adjust the schedule as the course progresses:

Topic	Weil Chapters	Marquee Theory	Data Lab
1. Basic Facts of Economic Growth	Ch. 1		Lab 1C
2. Capital	Ch. 2-3	<i>Neoclassical (Solow) Model</i>	
3. Demographics	Ch. 4		Lab 4B
4. Pre-Industrial Growth		<i>Classical (Malthusian) Model</i>	
5. Human Capital	Ch. 6	<i>Endogenous Growth (Lucas) Model</i>	Lab 6B
6. Income Inequality	Ch. 13		
7. Geographic Determinants of Growth	Ch. 15		Lab 15B
8. Transition to Modern Growth		<i>Transition (Becker) Model</i>	
9. Government	Ch. 12		Lab 12B
10. Technology and R&D	Ch. 8	<i>R&D (Romer) Model</i>	
11. Growth in the Open Economy	Ch. 11	<i>Solow Model in an Open Economy</i>	Lab 11B
12. Sectoral Change		<i>Sectoral Change (Hansen-Prescott) Model</i>	
13. Growth and the Environment	Ch. 16		

Boilerplate:

Enrollment in this course constitutes acknowledgement of the following:

- 1) I understand that the University of Florida expects its students to be honest in all of their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action, up to and including expulsion from the University.
- 2) I will adhere to university copyright policies.
- 3) Students requesting classroom accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

Fall 2020 University-mandated Disclaimer for Online Courses:

Our class sessions may be audio-visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate verbally are agreeing to have their voices recorded.

If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared.

As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Additional University-wide Resources:

Grading policies: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Attendance policies: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Honor code: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>