

**The University of Florida
Department of Economics**

**ECO 4270, Economic Growth
Fall 2022 Syllabus**

Instructor:

Jonathan Adams adamsjonathan@ufl.edu

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

Teaching Assistant:

TBD

Office: TBD **Office Hours:** TBD

Class Schedule:

Mondays and Wednesdays, Periods 7-8 (1:55 pm – 3:50 pm)

Room: MAT 119

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 Monday October 17th. It will be given in class.

Final Exam:

A comprehensive final exam will be held during the official examination period: Wednesday December 14th from 10:00am-12:00pm

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. Roughly half the topics are empirical, drawing from macro data, academic studies, and the Weil book. The remaining topics are growth models: economic theories that you will learn in class and on problem sets, and will show up in some shape or form on an exam. The class is scheduled as follows, although I reserve the right to adjust the schedule as the course progresses:

<u>Date</u>	<u>Class Topic</u>	<u>Assignments Due</u>
24-Aug	Basic Facts of Economic Growth	
29-Aug	Capital + Optimization	
31-Aug	Neoclassical Growth Model 1	
5-Sep	<i>Holiday</i>	
7-Sep	Neoclassical Growth Model 2	Empirical Homework 1: Basic Facts of Econ. Growth
12-Sep	Demographics	
14-Sep	Pre-Industrial Growth	Theory Assignment 1: Neoclassical Growth Model
19-Sep	Classical Growth Model 1	
21-Sep	Classical Growth Model 2	Empirical Homework 2: Demographics
26-Sep	Human Capital	
28-Sep	Income Inequality	Theory Assignment 2: Classical Growth Model
3-Oct	Endogenous Growth Model 1	
5-Oct	Endogenous Growth Model 2	Empirical Homework 3: Human Capital
10-Oct	Geographic Determinants of Growth	
12-Oct	Midterm Exam Review	Theory Assignment 3: Endogenous Growth
17-Oct	Midterm Exam	
19-Oct	The Demographic Transition	
24-Oct	Transition Model 1	
26-Oct	Transition Model 2	Empirical Homework 4: Natural Resources
31-Oct	Government	
2-Nov	Technology	Theory Assignment 4: The Transition Model
7-Nov	Expanding Varieties Model 1	
9-Nov	Expanding Varieties Model 2	Empirical Homework 5: Government
14-Nov	Sectoral Change	
16-Nov	Agricultural Transition Model	Theory Assignment 5: The Expanding Varieties Model
21-Nov	Growth in Open Economies	
23-Nov	Open Economy Model 1	Theory Assignment 6: Agricultural Transition
28-Nov	<i>Holiday</i>	
30-Nov	Open Economy Model 2	Empirical Homework 5: Open Economy
5-Dec	Growth and the Environment	
		Theory Assignment 7: Solow Model in an Open Economy
7-Dec	Exam Review	
12-Dec	<i>Reading Day</i>	
14-Dec	Final Exam (10am-12pm)	

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.

University-mandated Disclaimer for Online Courses:

The class will be fully in person (neither online nor hybrid) unless public health circumstances change sufficiently, in which case the following disclaimer becomes relevant:

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/>