

**The University of Florida
Department of Economics**

**ECO 4270, Economic Growth
Spring 2023 Syllabus**

Instructor:

Jonathan Adams adamsjonathan@ufl.edu

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

Teaching Assistant:

Francesca Molfino

Office: [Zoom Link](#) **Office Hours:** TBD

Class Schedule:

Tuesdays and Thursdays, 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 (*any due dates posted on Canvas or announced in class supersede these*):

<u>Date</u>	<u>Class Topic</u>	<u>Assignments Due</u>
10-Jan	Basic Facts of Economic Growth	
12-Jan	Capital + Optimization	
17-Jan	Neoclassical Growth Model 1	
19-Jan	Neoclassical Growth Model 2	Empirical Homework 1: Basic Facts of Econ. Growth
24-Jan	Demographics	
26-Jan	Pre-Industrial Growth	Theory Assignment 1: Neoclassical Growth Model
31-Jan	Classical Growth Model 1	
2-Feb	Classical Growth Model 2	Empirical Homework 2: Demographics
7-Feb	Human Capital	
9-Feb	Income Inequality	Theory Assignment 2: Classical Growth Model
14-Feb	Endogenous Growth Model 1	
16-Feb	Endogenous Growth Model 2	Empirical Homework 3: Human Capital
21-Feb	Geographic Determinants of Growth	
23-Feb	Midterm Exam Review	Theory Assignment 3: Endogenous Growth
28-Feb	Midterm Exam	
2-Mar	The Demographic Transition	
7-Mar	Transition Model 1	
9-Mar	Transition Model 2	Empirical Homework 4: Natural Resources
14-Mar	<i>Spring Break</i>	
16-Mar	<i>Spring Break</i>	
21-Mar	Government	
23-Mar	Technology	Theory Assignment 4: The Transition Model
28-Mar	Expanding Varieties Model 1	
30-Mar	Expanding Varieties Model 2	Empirical Homework 5: Government
4-Apr	Sectoral Change	
6-Apr	Agricultural Transition Model	Theory Assignment 5: The Expanding Varieties Model
11-Apr	Growth in Open Economies	
13-Apr	Open Economy Model 1	Theory Assignment 6: Agricultural Transition
18-Apr	Open Economy Model 2	Empirical Homework 5: Open Economy
20-Apr	Growth and the Environment	
25-Apr	Exam Review	Theory Assignment 7: Solow Model in an Open Economy
5-May	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.

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/>