

**The University of Florida  
Department of Economics**

**ECO 4270, Economic Growth  
Spring 2024 Syllabus**

**Instructor:**

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

**Teaching Assistant:**

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**Office:** TBD **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 Tuesday February 27<sup>th</sup>. It will be given in class.

**Final Exam:**

A comprehensive final exam will be held during the official examination period: Thursday May 2<sup>nd</sup> 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](http://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>
9-Jan	Basic Facts of Economic Growth	
11-Jan	Capital + Optimization	
16-Jan	Neoclassical Growth Model 1	
18-Jan	Neoclassical Growth Model 2	Empirical Homework 1: Basic Facts of Econ. Growth
23-Jan	Demographics	
25-Jan	Pre-Industrial Growth	Theory Assignment 1: Neoclassical Growth Model
30-Jan	Classical Growth Model 1	
1-Feb	Classical Growth Model 2	Empirical Homework 2: Demographics
6-Feb	Human Capital	
8-Feb	Income Inequality	Theory Assignment 2: Classical Growth Model
13-Feb	Endogenous Growth Model 1	
15-Feb	Endogenous Growth Model 2	Empirical Homework 3: Human Capital
20-Feb	Geographic Determinants of Growth	
22-Feb	Midterm Exam Review	Theory Assignment 3: Endogenous Growth
27-Feb	<b>Midterm Exam</b>	
29-Feb	--	
5-Mar	The Demographic Transition	
7-Mar	Transition Model 1	Empirical Homework 4: Natural Resources
12-Mar	<i>No Class (Spring Break)</i>	
14-Mar	<i>No Class (Spring Break)</i>	
19-Mar	Government	
21-Mar	Technology	Theory Assignment 4: The Transition Model
26-Mar	Expanding Varieties Model 1	
28-Mar	Expanding Varieties Model 2	Empirical Homework 5: Government
2-Apr	Sectoral Change	
4-Apr	Sectoral Change Model 1	Theory Assignment 5: The Expanding Varieties Model
9-Apr	Growth in Open Economies	
11-Apr	Open Economy Model 1	Theory Assignment 6: Sectoral Change Model
16-Apr	Open Economy Model 2	
18-Apr	Growth and the Environment	
23-Apr	--	Theory Assignment 7: Solow Model in an Open Economy
2-May	<b>Final Exam</b>	

**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.

**Economics Department Recording Policy:**

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A "class lecture" is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To "publish" means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

**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/>