Economics 401A: Advanced Macroeconomics
Spring 2021

Instructor: Camilo Granados
Class Time and Location: Tuesday and Thursday 8:30-10:20AM, via Zoom
Course Office Hours: Tuesday 4:30-5:30 PM or by appointment
Email: jcgc@uw.edu
Website: UW Canvas

Course Description

This course explores modern theories of macroeconomic fluctuations. The goal is to introduce students to the seminal frameworks of contemporary macroeconomics and equip them with relevant analytical and empirical techniques for understanding advanced macroeconomic analyses. The course will cover topics from the monetary theory of business cycles, monopolistic competition, dynamics of price adjustments, financial frictions, consumption theories, and through group projects, provide students opportunities to explore additional topics such as optimal monetary policy, dynamic stochastic general equilibrium (DSGE) analyses, COVID-19, and so on.

Prerequisites

The course will cover a sequence of mathematical models. This will require familiarity with multivariate calculus and constrained optimization. Techniques such as using the chain rule, setting up a Lagrangian, taking logarithms of functions of multiple variables and differentiating <u>must be familiar to you</u>. If you have forgotten these topics, you should review them as soon as possible. The only other prerequisite is Intermediate Macroeconomics (ECON 301), with a minimum grade of 2.0.

Workload expectations

You can expect to work hard in this course. This course is meant for students that are highly interested in <u>advanced</u> macroeconomics and who are willing to do a considerable amount of reading and use plenty of math. If on the contrary, you are looking for a course at the last minute to fill your schedule, this may not be the right choice. Having said this, you should also know I am more than happy to reward your effort as possible and that I am willing to work just as hard as I expect you to.

On the other hand, I understand the challenges of remote learning. That is why I will try to allocate most of the mathematical heavy lifting on the homework assignments and only as little as required on timed exams/quizzes. Then, you should also expect the homework assignments to be hard compared to the other components of the course.

Group Work

Working in groups is <u>highly encouraged</u>. Study groups are encouraged for assignments and for exams preparation. However, you must submit your own individual write-up for all assignments. All exams/quizzes will be based on individual evaluations; no collaborations are allowed.

Course Textbook

- ☐ (Required) Romer, Advanced Macroeconomics, 5ed., McGraw Hill

☐   Additional supplementary material will be posted on Canvas

Assessments

- 5 Problem Sets (35%) – due via Canvas

There are five homework assignments to help you review and apply the material learned in lectures.

To facilitate student interactions during online learning, you may be assigned a study group for each homework. You are strongly encouraged to discuss answers with your group mates, but **you must submit individual write-ups, in your own words, as well as the names of your group-mates**. Assignment grades will be based on a 10-point scale. Six points will be awarded for completion; the remaining four will be assigned based on the quality of your answers. **In addition,** groups may be called on in class to explain certain problems.

- In-Class Group Discussion and Presentation (15%)

There will be occasional group discussion sessions to go over assigned readings and questions, as well as **a final group presentation, which will take place during the last week of class**. During the group discussions, you will get to discuss and work through problems collectively, so participation is important.

- Quizzes and Exams (50%)

There are **three quizzes** during the quarter and a final exam during final exam week; all are open book. Each quiz will take ~30 minutes to complete and counts towards 10% of your grade. They are designed to make sure you stay up-to-date on the material. The final exam (20%) is cumulative and on **Tue, June 8th, from 10:30 – 12:20PM**. You will typically be allowed 5-10 extra minutes to turn in your work online.

If you cannot make an exam date, the following policy applies: major exceptions are only allowed in case of medical emergencies that concern either you or your family. In this case, please provide a certification by a doctor on the exam date (see Academic Conduct policies). If it is a quiz that you have to miss, its weight will be added to the final exam. If it is the final exam that you miss, you will need to take a make-up exam next quarter. This exam will be significantly harder than the exam at the end of this term, reflecting the fact that you have more time for preparation.

- Extra Credit (5%)

Students can receive 5% full credit for turning in their own answers to **seven** of the "Key Questions" from each lecture before the next class meeting. This is an easy way to get credits and also help you review the class material regularly. Under this option, the scores from the rest of the contributions will be rescaled to 95% total.

-Lecture Attendance Incentive:

The attendance to the live lectures is highly encouraged. To provide a strong incentive for this, students that attend at least 80% of the lectures (16 out of 20) will have their lower quiz grade removed and replaced with the average of the remaining ones. This incentive applies only if you take every quiz. Notice this is only an extra and optional incentive, and thus, students unable to attend the lectures will not be affected negatively in any way and for them lecture videos may become available (this is to my discretion. If attendance drops by more than 70% of the class I may have to stop uploading the recordings).

-Grading:

We have a grader for this course, her name is Mikita Khurana (mikita13@uw.edu) and I trust her competence fully in this process. She will grade your homework assignments, quizzes and part of the final exam. If you have questions related to her grading you can email her but must include me (cc) in all of your correspondence with her.

The Economics Department supports the University policies regarding academic honesty and classroom behavior. Students of the course are expected to adhere to the University of Washington's Policy on Academic Honesty that can be found at https://depts.washington.edu/grading/pdf/AcademicResponsibility.pdf.

Course Topics

I. REVIEW AND INTRODUCTION
- Business Cycle Empirics
- Aggregate Demand, Aggregate Supply
- Expectations and Micro-Foundations

II. MONETARY THEORIES OF THE BUSINESS CYCLE
- Information Friction Models
- Nominal Rigidity Models & Dynamic Modeling of Price Adjustment
- Real Rigidity - Efficiency Wage Theory

III. DYNAMIC OPTIMIZATION AND AGGREGATE DEMAND
- Modern Consumption Models
- Credit Channel and Financial Friction

IV. INTRODUCTION TO DYNAMIC STOCHASTIC GENERAL EQUILIBRIUM MODELS
- Real Business Cycle Models
- New Keynesian Models
- Policy Applications