

# ECON 3080-004

## Intermediate Macroeconomic Theory

Spring 2016

**Instructor:** Nan Xu

**Class Meetings:** MWF 2:00 p.m. - 2:50 p.m.

**Location:** HLMS 141

**Email:** nan.xu@colorado.edu

**Office:** ECON 304

**Office Hours:** M 3-5 p.m. & by appointment

**Course Website:** <http://learn.colorado.edu> (Desire to Learn)

### Course Description

Macroeconomics examines aggregate economic activities. The principle level course in macroeconomics provides an introduction to classic macroeconomic issues such as GDP, unemployment, inflation and financial crisis. This intermediate level course is designed to expose students more formally to macroeconomic theories. The first part of this course deals with long run theories of economic growth. We will study the simple production model, the Solow and the Romer growth models. Topics related to determination of unemployment rate and inflation in the long run will be covered as well. The second part explores short run economic fluctuations. The IS-MP-PC and the AS-AD models will be discussed thoroughly and serve as useful tools for analyzing the impacts of monetary and fiscal policies on aggregate economic outcomes. The purpose of this course is to provide a framework for understanding macroeconomic performance over time. After a successful completion of this course, students should be able to:

1. Describe key concepts and models in words as well as in a formal mathematical way.
2. Utilize graphing and mathematical techniques to explain intuitions behind an economic question.
3. Apply concepts and models to explain economic phenomena in real world.

### Prerequisites

1.Economics prerequisites: ECON 1000 or 2020

2.Mathematics prerequisites: ECON 1078 and 1088, or MATH 1300, or MATH 1310, or MATH 1081,or MATH 1080,1090, and 1100, or APPM 1350, or equivalent.

This class requires working knowledge of calculus and students are assumed to meet this requirement. There will be no formal review of calculus techniques. Therefore, the mathematics prerequisites will be strictly enforced.

## Required Textbook

Charles I. Jones (2014). Macroeconomics (3rd Edition), W. W. Norton & Company.<sup>1</sup>

## Grading

Your course grade will be the maximum of the following two alternatives:

Alternative 1		Alternative 2	
Problem Sets	10%	Problem Sets	10%
In-class Assignments	20%	In-class Assignments	20%
Two midterms	40%	Your highest Midterm	30%
Final	30%	Final	40%
Total	100%	Total	100%

## Exams

There will be 3 exams in total: 2 midterms and a cumulative final. All the exams will be held in the same classroom (HLMS 141) and the dates are listed below. No make-up or early tests will be given. You are allowed to use a simple calculator during exams, but graphing calculators or cell phone calculators are not allowed under any circumstance.

If you have three or more final exams scheduled on the same day, you are entitled to arrange an alternative exam time for the last exam scheduled on that day. To qualify for rescheduling final exam times, you must provide evidence that you have three or more exams on the same day, and arrangements must be made with your instructor no later than the 10th week of the semester. For student athletes, if you will be travelling during the semester and have a conflict with the exam schedule, please inform me as soon as possible. If you have to miss a midterm (but not both), your grade will be calculated with alternative 2, with the missed one dropped and the final being weighted more heavily.

According to FERPA, we cannot discuss grades via email. If you have any questions or concerns about your grade, please come to see me during office hours. I will not email you back if you are asking about grades in the email.

*Tentative test schedule*

*Midterm1 : Wednesday, February 24th, regular class time*

*Midterm2 : Wednesday, April 13th, regular class time*

*Final : Thursday, May 5th.*

<sup>1</sup>See <http://www.stanford.edu/~chadj/macrobk.html> for details.

## **Problem Sets**

I will assign 3-4 problem sets throughout the semester. The questions on problem sets are designed to help you understand the material covered in lecture, and they are valuable resources for test review. Enough practice is necessary to succeed in this course. Please complete them carefully and turn them in on time. Problem sets will be graded for credit and late problem sets will not be accepted.

You are encouraged to work on problem sets in small groups (no more than 3 people). But each of you must turn in your own work for each assignment. If you work with others, please put the names of your partners on your assignment. It is reasonable for group members to show similar logic in problem sets, but submitting almost-identical problem sets is not allowed.

## **In-class Assignments**

There will be about 10 in-class assignments. I will spare 20 minutes at the end of class for you to do some in class practice. In-class assignments would be either multiple choices or short answers. To complete the assignments, you are allowed to use textbook and notes as reference and also talk to your neighbor (a group of 2). The dates of in-class assignments are chosen randomly, and there is no make up for missed ones. Two lowest scores will be dropped.

## **Other class policies**

No laptops or other electronic devices are allowed in class. Economic analysis involves a lot of graphing and mathematical derivations, so what you need to bring to class are just pens or pencils as well as paper.

Please be considerate with your use of email. I will answer emails between 8am and 5pm from Monday to Friday. I will do my best to respond an email within 24 hours. If you email me a substantive question about lectures, exams, or assignments, I will most likely encourage you to come talk to me about it during my office hours. I reserve the right not to answer emails lacking appropriate salutation, grammar and punctuation. Emails asking for administrative information contained within this syllabus or available on the course website will not be answered.

Office hours are for your benefit to ask questions or discuss course materials with me in a relative small setting environment. I have office hours on every Monday. If the listed office hours do not work for you, you can send me an email to set up an alternative time.

## **Course Outline**

See the table on next page.

Topic	Chapter
Introduction	1,2
An Overview of LR Growth	3
Production Model	4
Solow Growth Model	5
Romer Growth Model	6
Labor Market	7
Inflation	8
Introduction to SR	9
The IS Curve	11
Monetary Policy and the PC	12
The AS/AD Framework	13
Great Recession	10,14
Consumption	16 (if time permits)
Investment	17 (if time permits)
International Trade	19 (if time permits)
DSGE Models	15 (if time permits)

## Additional Notes

### Students with Disabilities

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671, Center for Community N200, and <http://www.Colorado.EDU/disabilityservices>.

If you have a temporary medical condition or injury, see guidelines at <http://www.colorado.edu/disabilityservices/go.cgi?select=temporary.html>.

Disability Services' letters for students with disabilities indicate legally mandated reasonable accommodations. The syllabus statements and answers to Frequently Asked Questions can be found at <http://www.colorado.edu/disabilityservices>.

### Religious Observance Policy

Campus policy regarding religious observances requires that faculty make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. If you have a conflict, please contact me at the beginning of the term so we can make proper arrangements.

### Classroom Behavior Policy

Students and faculty each have responsibility for maintaining an appropriate learning environment. Students who fail to adhere to such behavioral standards may be subject to discipline. Faculty has the professional responsibility to treat all students with understanding, dignity and respect, to guide classroom discussion and to set reasonable limits on the

manner in which they and their students express opinions.

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records. See policies at <http://www.colorado.edu/policies/classbehavior.html> and at <http://www.colorado.edu/studentaffairs/judicialaffairs/code.html>.student

### **Honor Code**

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council ([honor@colorado.edu](mailto:honor@colorado.edu); 303-725-2273).

Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at [honorcode.colorado.edu](http://honorcode.colorado.edu) or <http://www.colorado.edu/policies/honor.html>.

### **Discrimination & Harassment Policy**

The University of Colorado at Boulder Discrimination and Harassment Policy and Procedures, the University of Colorado Sexual Harassment Policy and Procedures, and the University of Colorado Conflict of Interest in Cases of Amorous Relationships Policy apply to all students, staff, and faculty. Any student, staff, or faculty member who believes s/he has been the subject of sexual harassment or discrimination or harassment based upon race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127, or the Office of Student Conduct (OSC) at 303-492-5550. Information about the ODH, the above referenced policies, and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://www.colorado.edu/odh>.