

## Intermediate Macroeconomic Theory (Spring 2008)

### Basic Information

Instructor	Makoto Nakajima
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Email	<a href="mailto:makoto@uiuc.edu">makoto@uiuc.edu</a>
Course web site	<a href="http://www.compmacro.com/makoto/200801econ303/index.php">http://www.compmacro.com/makoto/200801econ303/index.php</a>
Office hours	Wednesdays 10:00-12:00 or by appointment (email me)
Class	[Section 4] Tuesdays & Thursdays, 14:00-15:20 [Section 5] Tuesdays & Thursdays, 15:30-16:50
Classroom	[Section 4 & 5] 119 David Kinley Hall (DKH)
TA	Forrest Cheng ( <a href="mailto:tcheng4@uiuc.edu">tcheng4@uiuc.edu</a> )
TA's office hours	Fridays 14:30-16:30 @ Surveying Building, 2nd floor

### Overview

Macroeconomics studies the relationships among aggregate economic variables, such as output, consumption, investment, savings, employment and inflation. There are two goals for the class: (1) learning basic macroeconomic facts, and (2) studying models for analyzing these facts and evaluating related policy issues. Corresponding to the two objectives, each class typically consists of (1) data section and (2) model section.

As for the modeling approach, we take a simple version of the so-called *neoclassical approach* to macroeconomics, which has become the dominant approach to macroeconomics. The approach seriously considers the decision of economic agents (households, firms, government etc) in a free market economy. Consequently, in analyzing government policies, we must consider how economic agents react to different policies in a free market economy.

### Prerequisites

Modern economics is both qualitative and quantitative. Verbal arguments and intuitions are supported and are precisely represented by mathematical models and analyses. To survive this class, you should be familiar with basic level of calculus. In particular, you should be able to work with functions and equations with ease, understand the difference between variables and parameters, and compute the derivatives of commonly used functions.

Econ 302 (Intermediate Microeconomic Theory) is strongly recommended but not required. If you survived Econ 302 that uses calculus to a great extent, you have a great advantage in surviving this class.

In addition, from time to time, we will employ some basic statistical concepts. I assume that, at least, you know what mean, variance, standard deviation, correlation, covariance, and regression are.

Some problem sets ask you to work on a data set, using a spreadsheet software (popular softwares are Microsoft Excel, OpenOffice Calc, and iWork Numbers). The purpose of these problems is to

make you become familiar with the data that we are talking about. If you are not familiar with spreadsheet softwares, it's a good time to learn. It's going to be a good investment for your future.

### Textbook and Readings

Our main textbook is *Macroeconomics* by Stephen Williamson (3rd edition), published from Addison Wesley. It should be easy to get the book from the university bookstores or on-line retailers. We will not necessarily follow the order of materials in the textbook, but I will try to present materials in way consistent with the textbook. I will make sure that you know which part of the textbook we are covering in each class.

In addition, class notes (originally written by my fellow Professor Rui Zhao) will be made available through the class web page as necessary. Occasionally, I might introduce additional readings which helps you understanding on the materials more deeply.

### Exams

There are **two midterms and a final exam**. **The midterms are non-accumulative**. In other words, each midterm covers only the materials after the previous midterm. However, naturally, later materials draw on what you learn in the earlier classes to some extent. **Final exam** covers all the materials in the course. The allocation of the final exam is 25% each from the materials covered in the two midterms and 50% from the materials covered after the second midterm.

Exam dates are below:

Midterm I	February 19 (Tuesday) 19:00-21:00 @ Gregory Hall Rm 100
Midterm II	April 1 (Tuesday) 19:00-21:00 @ Library Rm 66
Final	TBD

All regrading requests must be submitted in **no later than one week after the exam is returned**. If you request regrading, please write down the reason for requesting regrading on a sheet of paper and submit to me together with your exam.

If you miss an exam for a legitimate reason (including schedule conflict), we will arrange a **make-up exam**. In order for a make-up to be granted, you must contact me in advance. The same rule for regrading applies.

### Problem Sets

There are **six problem sets** in total. Out of the six, the best five are counted in your final grade. Problem sets are distributed on-line through the course web site and are **due at the end of the class on the deadline date**. No late homework is accepted.

### Grades

Your final grade is determined based on: (1) problem sets (the best five carry 5 points each, totaling 25 points), (2) two midterms (each of the two midterms carry 22.5 points, totaling 45 points), and (3) final exam (30 points). The conversion formula between the total points and the final letter grade is as follows. Naturally, there is **no curve**.

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A+	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
≥ 95	≥ 91	≥ 87	≥ 83	≥ 79	≥ 75	≥ 71	≥ 67	≥ 63	≥ 59	≥ 55	≥ 50	< 50

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**Miscellaneous**

All information about the course, except for your grades, are posted on the course website. All grades are posted on the *Illinois Compass* system (<http://compass.uiuc.edu>).

**Any type of cheating, including copying homework from others, is strictly prohibited. Anybody involved in a cheating (including those who helped others in an unfair manner) will automatically receive F.**

**Course outline****0. Introduction**

Jan 15 (Tue) Lecture 0 – Introduction

**I. Economic Growth**

Jan 17 (Thu) Lecture 1 Ch.2,6 Growth facts  
 Jan 22 (Tue) Lecture 2 Ch.6 Growth Accounting  
 Jan 24 (Thu) Lecture 3 Ch.6 Solow growth model  
 Jan 29 (Tue) Lecture 4 Ch.6 Solow growth model  
 Jan 31 (Thu) Lecture 5 Ch.6 Solow growth model  
 Feb 5 (Tue) Lecture 6 Ch.7 Cross-country growth facts  
 Feb 7 (Thu) Lecture 7 Ch.7 Endogenous growth model I  
 Feb 12 (Tue) Lecture 8 Ch.7 Endogenous growth model II  
 Feb 14 (Thu) Review  
 Feb 19 (Tue) Midterm Exam I

**II. Fiscal Policy and Equilibrium Analysis**

Feb 21 (Thu) Lecture 9 Ch.4 Household's decision: consumption and leisure  
 Feb 26 (Tue) Lecture 10 Ch.4 Income and substitution effect  
 Feb 28 (Thu) Lecture 11 Ch.4 Fiscal policy in the 1-period model  
 Mar 4 (Tue) Lecture 12 Ch.5 Equilibrium and welfare theorems  
 Mar 6 (Thu) Lecture 13 Ch.8 Household's decision: consumption and savings  
 Mar 11 (Tue) Lecture 14 Ch.8 Fiscal policy in the 2-period model I  
 Mar 13 (Thu) Lecture 15 Ch.8 Fiscal policy in the 2-period model II  
 Mar 25 (Tue) Lecture 16 Ch.8 Social security  
 Mar 27 (Thu) Review  
 Apr 1 (Tue) Midterm Exam II

**III. Business Cycles, Monetary Policy, and Labor Market**

Apr 3 (Thu) Lecture 17 Ch.2 Business cycle facts  
 Apr 8 (Tue) Lecture 18 Ch.11 Real Business Cycle model  
 Apr 10 (Thu) Lecture 19 Ch.16 Labor market facts  
 Apr 15 (Tue) Lecture 20 Ch.16 Search theory of unemployment  
 Apr 17 (Thu) Lecture 21 Ch.15 Money facts  
 Apr 22 (Tue) Lecture 22 Ch.15 Monetary policy  
 Apr 24 (Thu) Review  
 Apr 29 (Tue) Reserve  
 TBD (???) Final Exam