

## Intermediate Macroeconomic Theory (Spring 2007)

### Basic Information

Instructor	Makoto Nakajima
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Course web site	<a href="http://www.compmacro.com/makoto/200701econ303/index.php">http://www.compmacro.com/makoto/200701econ303/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 (for grading)	TBA ( <a href="mailto:TBA@uiuc.edu">TBA@uiuc.edu</a> )

### 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) introducing some basic macroeconomic facts, and (2) providing a consistent way of analyzing these facts and evaluating related policy issues. 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 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 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 use 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 (the most popular software is Microsoft Excel). The purpose of the 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 (2nd edition), published from Addison Wesley. 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 **three in-class midterms and no final exam**. Three exams 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. Exam dates are below:

Midterm I	February 15 (Thursday)
Midterm II	March 27 (Tuesday)
Midterm III	May 1 (Tuesday)

All regrading requests must be submitted in no later than **one week** after the exam is returned to you. 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.

There is **no make-up exam**. If you miss one of the exams for a legitimate reason, you can submit a 5-page essay on a topic related to the materials covered in the exam to compensate for the points of the missed exam. That will make up to 50% of the weight of the missed exam. The rest of the weight will be redistributed proportionally to all the other items that determine your final grade.

## 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 *(i)* problem sets (the best five carry 5 points each, totaling 25 points), and *(ii)* midterms (each of the three midterms carry 25 points, totaling 75 points). The relationship between the total points and the final letter grade is as follows. Naturally, there is **no curve**.

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

## Miscellaneous

All grades are posted on the *Illinois Compass* system (<http://compass.uiuc.edu>).

All the exams and (potentially) problem sets are different for different sections. Please take the exam of the section that you are in. Different section might cover different materials, and the exams may differ accordingly.

**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

### I. Introduction

Jan 16 (Tue) Lecture 0 – Introduction

### II. Economic Growth

Jan 18 (Thu) Lecture 1 Ch.2,6 Growth facts  
 Jan 23 (Tue) Lecture 2 Ch.6 Growth Accounting  
 Jan 25 (Thu) Lecture 3 Ch.6 Solow growth model  
 Jan 30 (Tue) Lecture 4 Ch.6 Solow growth model  
 Feb 1 (Thu) Lecture 5 Ch.6 Solow growth model  
 Feb 6 (Tue) Lecture 6 Ch.7 Cross-country growth facts  
 Feb 8 (Thu) Lecture 7 Ch.7 Endogenous growth models  
 Feb 13 (Tue) Review  
 Feb 15 (Thu) Midterm I

### III. Fiscal Policy and Equilibrium Analysis

Feb 20 (Tue) Lecture 8 Ch.4 Household's decision: consumption and leisure  
 Feb 22 (Thu) Lecture 9 Ch.4 Income and substitution effect  
 Feb 27 (Tue) Lecture 10 Ch.4 Fiscal policy in the 1-period model  
 Mar 1 (Thu) Lecture 11 Ch.5 Equilibrium and welfare theorems  
 Mar 6 (Tue) Lecture 12 Ch.8 Household's decision: consumption and savings  
 Mar 8 (Thu) Lecture 13 Ch.8 Fiscal policy in the 2-period model  
 Mar 13 (Tue) Lecture 14 Ch.8 Social security  
 Mar 15 (Thu) Review  
 Mar 27 (Tue) Midterm II

### IV. Business Cycles, Monetary Policy, Finance, and Labor Market

Mar 29 (Thu) Lecture 15 Ch.2 Business cycle facts  
 Apr 3 (Tue) Lecture 16 Ch.11 Real Business Cycle model  
 Apr 5 (Thu) Lecture 17 Ch.16 Labor market facts  
 Apr 10 (Tue) Lecture 18 Ch.16 Search theory of unemployment  
 Apr 12 (Thu) Lecture 19 – Portfolio choice under uncertainty  
 Apr 17 (Tue) Lecture 20 – Asset prices  
 Apr 19 (Thu) Lecture 21 Ch.15 Money facts  
 Apr 24 (Tue) Lecture 22 Ch.15 Monetary policy  
 Apr 26 (Thu) Review  
 May 1 (Tue) Midterm III