CHULALONGKORN UNIVERSITY
FACULTY OF ECONOMICS

Macroeconomic Theory III (2940411) Somprawin Manprasert, Ph.D.
First Semester, 2006 E-mail: Somprawin.M@chula.ac.th
Office Hours: Wednesday 13.00-16.00 Office: 302 Tel: 0-2218-6263

COURSE DESCRIPTION

Modern economic theories have been extensively using mathematics to explain human's behavior and to rationally frame logics. This course is designed to give students an *introduction* of the mathematical approach to macroeconomics. We will cover the basis of modern-classic macroeconomic theories.

The material starts with micro-foundation of macroeconomic theory, which derives the optimal output, consumption, and work effort from utility maximization problem. In many cases, the constrained optimization will be used as the analytical tool. After we have set up the building block of the modern approach to macroeconomics, we will move onto real macroeconomic issues, including Inflation, Business Cycles, Economic Growth, and etc.

TEXTBOOKS

Main Textbooks

- Doepke, Matthias, Andreas Lehnert and Andrew W. Sellgren. *Macroeconomics*. Manuscript, University of Chicago, 1998.
- Romer, David. *Advanced Macroeconomics* (3rd edition). Singapore: McGraw-Hill, 2006.

Supplements

- Barro, Robert J. *Macroeconomics*. MA: The MIT Press, 1997.
- Chiang, Alpha C. *Fundamental Methods of Mathematical Economics*. Singapore: McGraw-Hill, 2004.
- Chiang, Alpha C. *Elements of Dynamic Optimization*. Singapore: McGraw-Hill, 1992.
- Sargent, Thomas A. *Dynamic Macroeconomic Theory*. Cambridge: Harvard University Press, 1987.

Lectures will follow materials from DLS and Romer; however, students with weak background may consult with Barro's or other intermediate macroeconomic textbooks. You may also find Chiang's mathematical textbooks (both of them) as the useful references. Related research works from working papers and journals will be introduced along the course.

EVALUATION

Your grade will be based on exercises (10%), the mid-term examination (40%), and the final examination (50%). There will be 4 exercises during the entire semester, which you may work on in teams if you wish.

TENTATIVE OUTLINE

First Half

DLS Ch 1 – Preliminaries
DLS Ch 2 – Work Effort, Production, and Consumption
DLS Ch 3 – The Behavior of Households with Markets for Commodities
DLS Ch 4 – Demand for Money
DLS Ch 6 – The Labor Market
DLS Ch 8 – Inflation
DLS Ch 12 – The Effect of Government Purchases
DLS Ch 13 – The Effect of Taxation
DLS Ch 18 – Fiscal and Monetary Policy
Chiang Ch 7-9 – Optimal Control Theory (Growth model, DLS for supplement)
Romer Ch 8 – Investment (Adjustment Cost and Tobin's *q*)

Second Half

Sargent Ch 1 – Introduction to Dynamic Programming
Romer Ch 7 – Consumption: Life-Cycle Hypothesis
Romer Ch 4 – Real Business Cycle Theory (DLS for supplement)
Romer Ch 5 – Traditional Keynesian Theories of Fluctuations
Romer Ch 6 – Microeconomic Foundations of Incomplete Nominal Adjustment
Romer Ch 9 – Unemployment: Efficiency Wage and Search Model
Romer Ch 10 – Time Inconsistency in Monetary Policy (DLS for supplement)
Romer Ch 11 – Budget Deficits and Fiscal Policy (DLS for supplement)