

Econ 510a (second half)  
Yale University  
Fall 2007  
Prof. Tony Smith

**Syllabus for**  
**GENERAL ECONOMIC THEORY: MACROECONOMICS**  
**ECON 510a (second half)**

**Course Objectives:** The purpose of the second half of Econ 510a is to (continue to) introduce students to modern macroeconomic theory with special emphasis on dynamic general equilibrium models of the macroeconomy. The course will teach students the key tools and central models of modern dynamic macroeconomics and use them to study growth, business cycles, asset pricing, and fiscal policy.

**Contact Information**

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Course web site: [www.econ.yale.edu/smith/econ510a](http://www.econ.yale.edu/smith/econ510a)

Office hours: Fridays from 9:30AM to 11AM, or by appointment

**Class Meetings:** Lectures take place on Mondays and Wednesdays from 1:30PM to 2:50PM in Room B8 (28 Hillhouse). The teaching assistant Evrim Aydin Saher (email address: [evrim.aydin@yale.edu](mailto:evrim.aydin@yale.edu)) will hold weekly sessions to review the course material and to go over the answers to the homework assignments. The exam for this part of the course takes place from 10AM to 1PM on Thursday, December 13.

**Grading:** Weekly homework assignments will constitute 10% of your grade and the two exams (one for each half of the course) will constitute 90% of your grade.

**Readings:** A set of lecture notes on macroeconomics by Per Krusell (available on the course web site) constitute the main set of readings for the course. Additional readings will be drawn from *Introduction to Modern Economic Growth* by Daron Acemoglu. (A draft of this book is, at least for now, freely available at: [econ-www.mit.edu/faculty/acemoglu/books](http://econ-www.mit.edu/faculty/acemoglu/books).)

Other resources which students may find useful include: *Notes on Macroeconomic Theory* by Stephen Williamson (available on the course web site); *Advanced Macroeconomics* by David Romer; *Lectures on Macroeconomics* by Olivier Blanchard and Stanley Fischer;

*Recursive Methods in Economic Dynamics* by Nancy Stokey and Robert Lucas with Edward Prescott; *Recursive Macroeconomic Theory (Second Edition)* by Lars Ljungqvist and Thomas Sargent; and *Frontiers of Business Cycle Research* (edited by Thomas Cooley).

## COURSE OUTLINE

The course is built around methods, and the different macroeconomic topics play the role of applications of the methods. Although the course does discuss macroeconomic data, the main emphasis is on developing and applying the methods. The lecture enumeration below is approximate. All readings refer either to the lecture notes by Per Krusell (PK) or to the book by Daron Acemoglu (DA). Additional readings, including journal articles, will also be assigned occasionally.

### **Lecture 1**

Steady states and dynamics in the Solow and neoclassical growth models.

Read Chapters 2 and 4 in PK and Chapters 2.1–2.3 in DA.

Review Chapter 3 in PK on dynamic optimization.

### **Lectures 2, 3, and 4**

Competitive equilibrium in dynastic models and in overlapping generations models; date-0, sequential, and recursive competitive equilibria; the welfare theorems; dynamic inefficiency.

Read Chapters 5 and 7.2 in PK and Chapter 9 in DA.

### **Lectures 5 and 6**

Uncertainty in dynamic equilibrium models; date-0, sequential, and recursive competitive equilibria under uncertainty; Arrow securities; the stochastic growth model; invariant distributions in dynamic models.

Read Chapter 6 in PK and Chapters 5.7, 17.1, and 17.2 in DA. (Note: The material in Chapter 6.2 on linearization of the Euler equation and on impulse response functions will be covered in the lecture on real-business-cycle models.)

### **Lectures 7 and 8**

Growth facts and theories.

Read Chapters 8 and 11.3.2 in PK and Chapters 1 and 3 in DA.

### **Lecture 9**

Real-business-cycle models.

Read Chapters 6.2 and 11 in PK and Chapter 17.3 in DA.

### **Lecture 10**

Asset pricing; the equity premium puzzle.

Read Chapter 9 in PK.

### **Lectures 11 and 12**

Economic policy; Ricardian equivalence; optimal tax policy; time-inconsistency.

Read Chapter 10 in PK.