

**UNIVERSITY OF HAWAII AT MANOA**

**DEPARTMENT OF ECONOMICS**

**Economics 607  
Macroeconomic Theory I**

Fall 2004  
Lecture: TR 6:00pm – 8:00pm  
Room: BUSAD C102

Instructor: Lee H. Endress  
Office: Saunders 505  
Phone: 780-7483

**Course Descriptions:** This course is an introduction to macroeconomic theory and analysis. A major theme of the course will be macroeconomic dynamics with emphasis on the neoclassical foundations of investment, capital theory, economic growth, and monetary theory. We begin with review of basic macroeconomic models and their dynamics, including IS-LM and AS-AD. Three sessions will be devoted to the consideration of open economy macroeconomics. The course will then introduce the technology of optimal control through the study of capital theory and investment. Optimal control and other dynamic methods will be applied to basic models of economic growth (Solow, Ramsey). Next we consider models of overlapping generations and their use in policy analysis of issues such as social security. Then, using neoclassical models, we will study the role of money in the economy. Finally, as time permits, we will consider advanced topics, including finite horizon models, investment with adjustment cost, and models of endogeneous growth.

**Required Texts:**

Heijdra and Van der Ploeg, *Foundations of Modern Macroeconomics*, Oxford, 2002  
Barro and Sala-I-Martin, *Economic Growth (2<sup>nd</sup> Ed.)*, MIT, 2004

**Other References:**

Aghion and Howitt, *Endogenous Growth Theory*, MIT, 1998  
Blanchard and Fischer, *Lectures On Macroeconomics*, MIT, 1989  
Romer, *Advanced Macroeconomics (2<sup>nd</sup> Ed.)*, McGraw-Hill, 2001  
Chaing, *Elements of Dynamic Optimization*, Waveland, 1999

**Grading:**

Final Exam:	40%
Midterm Exam:	30%
Quizzes (2):	20%
Participation:	10%

## SYLLABUS

**Topic 1: Review of Basic Macro Models** (3 sessions: Aug 24, 26, 31)  
Heijdra /Van der Ploeg, chapters 1 and 2 (section 2.1)

**Topic 2: Intro to Open Economy Macroeconomics** (3 sessions: Sept 2, 7, 9)  
Heijdra/Van der Ploeg, chapter 11 (section 11.1)

**Topic 3: Economic Dynamics and Optimal Control** (4 sessions: Sept 14, 16, 21, 23)  
Heijdra/Van der Ploeg, appendix A.8  
Barro and Sala-I-Martin, appendix A.3  
Dorfman (1969)  
Ramsey (1928)

**Topic 4: Solow-Ramsey Growth Models** (6 sessions: Sept 28, 30; Oct 5, 7, 12, 14)  
Heijdra/Van der Ploeg, chapter 14  
Barro and Sala-I-Martin, chapters 1 and 2  
Mankiw et al (1992)

**Midterm: Oct 19 (Tuesday), 6:00pm – 7:30pm**

**Topic 5: Models of Overlapping Generations** (3 sessions: Oct 21, 26, 28)  
Heijdra/Van der Ploeg, chapter 17  
Barro and Sala-I-Martin, chapter 3 (section 3.8)  
Diamond (1965)

**Midterm Review: Nov 4 (Thursday), 6:00pm – 7:30pm**

**Topic 6: Money** (3 sessions: Nov 9, 16, 18)  
Heijdra/Van der Ploeg, chapter 12  
Brock (1975)  
Sidrauski (1967)

**Topic 7: New Growth Theory** (4 sessions: Nov 23, 30; Dec 2, 7)  
Heijdra/Van der Ploeg, chapters 14 and 16 (selected sections)  
Barro and Sala-I-Martin, chapters 3 and 4 (selected sections)  
Blanchard (1985)  
Lucas (1988)  
Romer (1986)

**Topic 8: Wrap-up and Review** (Dec 9)

**Final: Dec 14 (Tuesday), 6:00pm – 8:00pm**

## **PAPERS**

### **Neoclassical Foundations**

Ramsey, Frank (1928), "A Mathematical Theory of Saving," *Economic Journal*

Dorfman, Robert (1969), "An Economic Interpretation of Optimal Control Theory," *American Economic Review*

Weitzman, Martin (1976), "On the Welfare Significance of National Product in a Dynamic Economy," *Quarterly Journal of Economics*

### **Growth Theory**

Lucas, Robert (1988), "On the Mechanics of Economic Development," *Journal of Monetary Economics*

Mankiw, N Gregory et al (1992), "A Contribution to the Empirics of Economic Growth," *Quarterly Journal of Economics*

Romer, Paul (1986), "Increasing Returns and Long-Run Growth," *Journal of Political Economy*

### **Overlapping Generations Models**

Diamond, Peter (1965), "National Debt in a Neoclassical Growth Model," *American Economic Review*

Blanchard, Oliver (1985), "Debt, Deficits, and Finite Horizons," *Journal of Political Economy*

### **Money and Inflation**

Brock, William (1975), "A simple Perfect Foresight Monetary Model," *Journal of Monetary Economics*

Sidrauski, Miguel (1967), "Rational Choice and Patterns of Growth in a Monetary Economy," *American Economic Review*