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 (2nd Ed.), MIT, 2004

Other References:
Aghion and Howitt, Endogenous Growth Theory, MIT, 1998
Blanchard and Fischer, Lectures On Macroeconomics, MIT, 1989
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


Growth Theory


Overlapping Generations Models


Money and Inflation
