OREGON STATE UNIVERSITY  
GRADUATE PROGRAM IN APPLIED ECONOMICS  

AEC 615: Advanced Macroeconomic Theory  
Winter term, 4 credits

Course Description and Objectives

This course is an introduction to modern macroeconomic theory on economic growth and fluctuations. It includes a review of Keynesian theory, optimal control theory and dynamic programming, exogenous and endogenous growth models, government budget deficit and debt, unemployment theories and other topics. The course has two objectives. The first is the presentation of the tools required to study macroeconomic models. The second is the application of these tools to topics in macroeconomics.

Textbook


Course Outline

I. Traditional Keynesian theory of economic fluctuations (20%)
II. Economic Growth (25%)
   A. Solow-Swan model
   B. Optimal control theory
   C. Ramsey-Cass-Koopmans model.
III. Models of Endogenous Growth (10%)
   A. AK Model
   B. Models with Human Capital
IV. Government Budget Deficit and Debt (20%)
V. Unemployment theories (20%)
   A. Efficiency wage models
   B. Labor union models

Learning Outcomes

By the end of this course:
1. Students should be able to analyze macroeconomic issues regarding inflation, unemployment, business cycles, government’s budget deficit and debt, and economic growth and development based on the economic models studied in the course.
2. Students should be able to confidently solve and analyze macroeconomic models using differential and difference equations, static and dynamic optimizations.
3. Students are able to apply the mathematical tools and particularly optimal control theory and Hamiltonian dynamic systems studied in the course to such applied economics fields as resource and environmental economics.
Exam and grading

The assessment for this class consists of two midterm tests (2x20%=40%) and a final exam (60%). Tests and final exam are closed notes and closed books. Homework assignments are regularly given but they will not be graded.

Students with Disabilities:

Accommodations are collaborative efforts between students, faculty and Services for Students with Disabilities (SSD). Students with accommodations approved through SSD are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through SSD should contact SSD immediately at 737-4098.

Expectations for Student Conduct (cheating policies):

Oregon State University defines academic dishonesty as: “An intentional act of deception in which a student seeks to claim credit for the work or effort of another person or uses unauthorized materials or fabricated information in any academic work.” Academic dishonesty includes: Cheating, Fabrication, Assisting, Tampering, Plagiarism. More information, including the process by which academic dishonesty cases are handled, is available at: http://oregonstate.edu/admin/stucon/achon.htm