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Office Hours: Mondays 15:00 - 19:00 and by appointment.


Course objectives: The course is intended to serve two purposes. First and foremost the course is a graduate-level introduction to modern macroeconomics and dynamic economic analysis. Second, at a somewhat different level the course also aims to provide an introduction to growth theory and the determinants of the long-run performance of economies. The course starts with a review of the Solow growth model and then proceeds with the analysis of models with endogenous consumption and savings decisions. This second part of the course will start with an analysis of consumption-savings decisions and the labour-leisure choice of households in a two-period setting. Next, we study the two main workhorse models in modern macroeconomics: The neo-classical growth model with infinitely-lived agents (the Ramsey model) and a canonical version of the overlapping-generations models with physical capital. We will analyze the existence, uniqueness and stability of the competitive equilibrium in both settings and we will make a comparison between the equilibrium allocation and the efficient resource allocation.

Prerequisites: The course material is self-contained, but students are presumed to have followed advanced undergraduate courses in macroeconomics and should be familiar with the techniques for constrained optimization and first-order differential equations. For the most part the course will focus on deterministic models in real time that can be analyzed with the help of Lagrange methods. But for the analysis of the stability of and the convergence to the steady-state equilibrium of the neo-classical growth model we will use continuous time-specifications.
Course Outline:

Part 1. Introduction
Week 1. Data and Questions ......................... AC Ch. 1
Week 2. Solow Growth Model (discrete time) ........ AC 2.1 - 2.3
Week 3. Solow Growth Model (cont. time) ............ AC 2.4 - 2.8
Week 4. Growth Accounting .......................... AC Ch. 3 & 4

Part 2. Microfoundations
Week 5. Consumption-savings decisions .................. Notes
Week 6. Labour-leisure choice .......................... Notes

Neoclassical Growth
Week 7. The Canonical OLG model ..................... AC 9.1 - 9.5
Week 8. Foundations of Neoclassical Growth ............ AC Ch 5
Week 9. The Canonical Neoclassical Growth Model .... AC Ch 8
Week 10. Neoclassical Growth Model in Cont. Time .... AC Ch 8
Week 11. Transitional dynamics and convergence ...... AC Ch. 7 & 8

Calibration

Homework: There will be a minimum of five problem sets and two group assignments. Solutions to the problem sets must be handed in at the start of class. The students are encouraged to work in small groups, but each student should hand in his or her personal solutions. Depending on the available time, problem sets may be solved during regular class hours or during the available time for tutorials. The group assignments consist of either a growth or a development accounting exercise and a calibration exercise. The students will be asked to present their work in class at least on one occasion during the course.

Grading: The final grade is a weighted average of the homeworks (20%), a mid-term exam (20%) and a final exam (60%).