



Course: Macroeconomics I

Faculty: Christopher Busch

Term: Fall

E-mail:

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Office Hours: Upon request by email.

Description:

This course provides the introduction into modern dynamic macroeconomics. We will discuss both deterministic and stochastic economies with complete markets. The course will cover endowment economies and one workhorse model of modern macroeconomics: the neoclassical growth model. In those frameworks, we will discuss efficient allocations, and competitive equilibrium concepts. Along the way, we will discuss dynamic programming.

Objective:

This course has 4 major educational aims: 1) Understand the concepts of efficient allocations, 2) Understand the concepts of competitive equilibria (time-0 trading; sequential markets), 3) Become familiar with the neoclassical growth model in sequential and recursive form and several of its applications, 4) Become familiar with dynamic programming

Outline:

1. Deterministic neoclassical growth model (LS ch. 7; K ch. 3, 7):
 - a. social planner, equilibrium concepts, solution methods, welfare theorems
 - b. Application: calibration of model (CP sec. 4)

2. Dynamic programming (K ch. 4-5, LS ch. 3)
3. Stochastic models (K ch 6, LS ch 8 & 12)
 - a. Representation of risk
 - b. Time-0 trading and sequential trading equilibrium in endowment economy
 - c. Stochastic neoclassical growth model (RBC-model)
 - d. Application: discussion of model calibration (CP sec. 6-7; KPR) and discussion of capital-skill complementarity (KORV)

References:

There are two main references for the course:

- (K) Krueger, D., 2017: "Macroeconomic Theory", teaching manuscript.
- (LS) Ljungqvist, L. and T. Sargent, 2004: "Recursive Macroeconomic Theory", MIT Press.

Additional references for applications:

- (CP) Cooley, T. F. and E. C. Prescott, 1995: "Economic Growth and Business Cycles", in Cooley, T.F. (ed.): Frontiers of Business Cycle Research, Princeton University Press.
- (KPR) King, R. G., C. I. Plosser, and S. T. Rebelo, 1988: "Production Growth and Business Cycles. I. The Basic Neoclassical Growth Model", Journal of Monetary Economics, 21, pp. 195-232
- (KORV) Krusell, P., L. E. Ohanian, J.-V. Ríos-Russ, and G. L. Violante, 2000: "Capital-Skill Complementarity and Inequality: A Macroeconomic Analysis", Econometrica, 68 (5), pp. 1029-1053

Additional references will be pointed out along the way.

Grading:

Problem sets (20%), Final exam (80%).