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Advanced Macroeconomics: Growth and Business Cycles Course Syllabus Spring 2025

1. Description

This is a 75-hour graduate course in advanced macroeconomics that focuses on dynamic general equilibrium macroeconomics. The topics will cover microeconomic foundations of macroeconomics, growth theories and selected business cycles and labor market issues. This is an obligatory course for MA Program in International Economics. The class meets twice a week for two lecture hours. The class is accompanied by tutorial classes once every two weeks.

2. Objectives

The main objective of this course is to familiarize students with key analytical models in modern macroe-conomic literature.

The course consists of three parts. The first part is devoted to microfoundations of macroeconomic models such as the dynamics of consumption, government sector, investment and the labor market. The second part focuses on long-run economic growth and covers both exogenous and endogenous theories. The third part concentrates on business cycles and covers Real Business Cycles and New Keynesian theories, as well as various related issues.

To facilitate acquisition of material and its proper understanding, the course is deliberately designed to be as much internally consistent as it is possible, even at a cost of some nuance. The models are presented in discrete time convention and using those variants that make comparisons between them as easy and straightforward as possible, even if they are not always in the variants most common in the literature.

The course is designed to suit well both the students for whom it will be their last formal course in macroeconomics, and the students who will pursue a PhD in economics.

3. Readings

There is no single textbook for this course, instead I offer detailed lecture slides and/or notes. References will be made to selected chapters from the following books:

[AH] Aghion P., Howitt P.W. (2009) The Economics of Growth, MIT Press, Cambridge, MA [CSV] Campante F., Sturzenegger F., Velasco A. (2021) Advanced Macroeconomics: An Easy Guide, LSE Press, London, online

[GLS] Garin J., Lester R., Sims E. (2021) Intermediate Macroeconomics, online. Romer D. (2019) Advanced Macroeconomics, Fifth Edition, McGraw-Hill, New York.

4. Prerequisites

The main prerequisite for this course is knowledge of both macroeconomics and microeconomics at the undergraduate level, as well as mathematical methods in economics at the graduate level.

5. Grading

The grading will be based on homework assignments, worth 15 points, and two closed-book exams (midterm and final), both worth 50 points. Points from the exams and homeworks add up. The total score will correspond to the final grade as indicated below:

| Points | [0, 50) | [50, 60) | [60, 70) | [70, 80) | [80, 90) | [90, 100) | ≥ 100 |
|------------------------|---------|----------|----------|----------|----------|-----------|------------|
| Grade | 2 | 3 | 3.5 | 4 | 4.5 | 5 | 5! |

Detailed course program and background readings

Part I: Microeconomic Foundations

- 1. Consumption [GLS 9–10, CSV 11, Romer 8]
- 2. Government sector [GLS 13, CSV 17, Romer 12]
- 3. Neoclassical labor market [GLS 12.2]
- 4. Investment [GLS 12.1, CSV 13, Romer 9]

Part II: Economic Growth

Neoclassical Growth Theory (exogenous growth models)

- 1. Growth facts & Solow-Swan model [GLS 4–7, CSV 2 & 7, Romer 1 & 4]
- 2. Overlapping generations (OLG) model [GLS 8, CSV 8–9, Romer 2B]
- 3. Ramsey-Cass-Koopmans (RCK) model [CSV 3, Romer 2A]
- 4. Models of inequality [Jones (2014) and De Nardi (2015)]

New Growth Theory (endogenous growth models)

- 1. AK models and externalities [AH 2, CSV 5, Romer 3]
- 2. Expanding product variety models [AH 3, CSV 6.1]
- 3. Improving product quality models [AH 4-5, CSV 6.2]
- 4. Diffusion of technology [AH 7]

Part III: Business Cycles

- 1. Business cycle facts & Real Business Cycles (RBC) model [GLS 18–20, CSV 14, Romer 5]
- 2. Models of unemployment [GLS 17, CSV 16, Romer 11]
- 3. New Keynesian model [GLS 24–27, CSV 15, Romer 7]
- 4. Monetary policy [GLS 28, CSV 20-21, Romer 12]

Covered if time allows

- 5. Open economy & International Business Cycles [GLS 29, CSV 4]
- 6. Fiscal policy, debt sustainability, sovereign default [GLS 13, CSV 18 & 22, Romer 13]
- 7. Financial frictions [GLS 31 & 33 & 36, Romer 10]