

Master in Economic Policy
Winter 2023/24
Syllabus Economic Growth

- Lectures:** The weekly sessions on campus are scheduled for Wednesdays, 12:15-13:45 p.m. in US-A 0134/1
- Tutorials:** There will be tutorial classes every other week on Wednesdays from 14:15-15:45 p.m. in US-D 312
The course is listed in Unisono. Please register.
The first sessions will take place on October 18, 2023.
- Exams** Written exams will take place according to the rules of the department
- Instructor:** Prof. Dr. Karl-Josef Koch
koch@vwl.wiwi.uni-siegen.de
- Office Hours:** on request; please ask for appointments by email
- Course Website:** <http://www.wiwi.uni-siegen.de/vwli/lehre/>
print versions of slides, exercises, and some additional material will be posted throughout the semester, so check the website regularly.

Economic Growth

Karl-Josef Koch

Winter 2023/24

Content

1 Introduction

- 1.1 Topic, Goals and Methods
- 1.2 Regularity and Balance
- 1.3 Stability
- 1.4 Convergence
- 1.5 Sustainability

2 Theories of Economic Growth

- 2.1 Capital Accumulation and Maximization of Intertemporal Utility
- 2.2 Returns to Scale and Sustained Growth: The AK-Model
- 2.3 Endogenous Technical Progress: Models of Romer, Jones, and Others
- 2.4 Human Capital Accumulation: The Approach of Uzawa and Lucas
- 2.5 Product Differentiation: The Romer Model
- 2.6 Creative Destruction: From Schumpeter to Aghion and Howitt
- 2.7 Miscellaneous: A Little Bit about Some of All the Other Topics of Interest

Prerequisites

Students should be familiar with advanced methods of Microeconomic Theory, advanced methods of Calculus for Economists and basics of Econometrics. The necessary techniques for dynamic modeling and analysis are provided on the fly. Some basic techniques of intertemporal optimization will be taught in the lectures and trained in the tutorials.

Mathematical modeling is the predominant method used in the course. You have to be aware of that!

Selected References

ACEMOGLU, D. (2008): *Introduction to Modern Economic Growth*. Princeton University Press.

AGHION, P., AND P. HOWITT (1998): *Endogenous Growth Theory*. MIT Press.

BARRO, R., AND X. SALA-I-MARTIN (1995): *Economic Growth*. McGraw-Hill.

GANDOLFO, G. (1996): *Economic Dynamics*. Springer.

GROSSMAN, G. M., AND E. HELPMAN (1991): *Innovation and Growth in the Global Economy*. MIT Press.

JONES, C. (1998): *Introduction to Economic Growth*. W. W. Norton.