CGDE
Central-German Doctoral Program Economics
Dresden - Halle - Jena - Leipzig - Magdeburg

IWH Doctoral Programme in Economics

IWH-DPE/CGDE First-Year Course

Macroeconomics

Work load: 150 hours / 6 ECTS
Lecture: Bi-weekly, 14 x 90 minutes / in person at IWH
Begin: 12.04.2024
Time: Fridays 10:30–12:00 and 13:00–14:30

Schedule

Professor Dr Lars Börner
12.04.24; 10:30-12:00 / 13:00-14:30
26.04.24; 10:30-12:00

Professor Dr Thomas Steger
26.04.24; 13:00-14:30
10.05.24 and 24.05.24; 10:30-12:00 / 13:00-14:30

Professor Dr Roland Winkler
07.06.24, 21.06.24 and 05.07.24; 10:30-12:00 / 13:00-14:30

Contents

I. **Technology, Institutions and Growth**
Professor Dr Lars Börner, Martin Luther University Halle-Wittenberg
1. Long Run Growth: Technology and Human Capital
2. Long Run Growth: Institutions
3. State Formation and Policy: Welfare State, Fiscal and Monetary Policy

II. **Quantitative Growth Modeling**
Professor Dr Thomas Steger, Leipzig University
1. Methods: Dynamic Optimization & Numerical Solution
2. Workhorse Models: Ramsey & OLG
3. Endogenous Growth: Education & Technological Change
4. Climate Change & Economic Growth

III. **Dynamic Stochastic General Equilibrium Models of Fluctuations**
Professor Dr Roland Winkler, Friedrich Schiller University Jena
1. The Baseline Real Business Cycle Model
2. The Baseline New Keynesian Model
3. Monetary and Fiscal Policy in the Baseline New Keynesian Model
4. Macroeconomic Stabilization Policies in Models with Heterogeneity

Registration

Please register for the course **until March 31, 2024** by sending an e-mail to cgde@iwh-halle.de.

The course is designed for at most 25 participants.

Exam

6 of 7 Problem Sets (at least one from every block indicated by Roman numbers) have to be successfully passed to complete the course.

Pre-course in Matlab

There will be a voluntary pre-course in Matlab on April 15 and 19 (via Zoom) in which students will be made familiar with the software and taught skills that will be required in parts of the main course. Please indicate with your registration if you want to attend the pre-course.

Main Literature

Literature marked with an asterisk has to be studied beforehand.

I.1 Long Run Growth: Technology and Human Capital

(*) Goldin, Claudia. Human Capital. In: Claude Diebolt and Michael Haupert, Handbook of Cliometrics. Berlin: Springer Verlag 2016, 55-86.

(*) Mokyr, Joel. Long-term Economic growth and the History of Technology. Handbook of Economic Growth, Volume 1, Part B, 2005, 1113-1180.

I.2 Long Run Growth: Institutions

(tba)

I.3 State Formation and Policy: Welfare State, Fiscal and Monetary Policy

(*) Dincecco, Mark and Gabriel Katz. State Capacity and Long-Run Economic Performance: The Economic Journal. Vol. 126 (Feb.), pp. 189-218.

(*) Johnson, Noel D. and Mark Koyama. States and Economic Growth: capacity and constraints. Explorations in Economic History. 2017, Vol. 64, pp. 1-20.

(*) Przeworski, Adam, and Fernando Limongi. Political Regimes and Economic Growth. Journal of Economic Perspective. 1993. Vol. 7 (3), pp. 51-69.

II.1 Methods: Dynamic Optimization & Numerical Solution

(*) Acemoglu, D. (2009): Introduction to Modern Economic Growth, Princeton University Press, Chapters 6-7.

See also the Relaxation website: https://sites.google.com/view/relaxmacro

II.2 Workhorse Models: Ramsey & OLG

(*) Acemoglu, D. (2009): Introduction to Modern Economic Growth, Princeton University Press, Chapters 8-9.

II.3 Endogenous Growth: Education & Technological Change

(*) Acemoglu, D. (2009): Introduction to Modern Economic Growth, Princeton University Press, Chapters 10, 12 & 13.

II.4 Climate Change & Economic Growth

Barrage, Lint & William D. Nordhaus (2023): Policies, Projections, and the Social Cost of Carbon: Results from the DICE-2023 Model, NBER Working Paper 31112.

Dietz, S., & Venmans, F. (2019). Cumulative carbon emissions and economic policy: In search of general principles. Journal of Environmental Economics and Management, 96, 108-129.

Hassler, J., P. Krusell, and A. Smith. 2016. "Environmental Macroeconomics." In Handbook of Macroeconomics, edited by J. B. Taylor and H. Uhlig, 2. Elsevier Science.

Further information on Part II: sites.google.com/view/thomassteger/teaching/amacrocgde

III Dynamic Stochastic General Equilibrium Models of Fluctuations

(*) Romer, David (2018). Advanced Macroeconomics. Fifth Edition. McGraw-Hill. Chapters 5-7.

(*) Bilbiie, F. O. (2020): The New Keynesian Cross. Journal of Monetary Economics 114, 90-108.

Bilbiie, F. O. (2008): Limited Asset Market Participation, Monetary Policy and (Inverted) Aggregate Demand Logic. Journal of Economic Theory 140, 162-196.

(*) Gali, J. (2015): Monetary Policy, Inflation, and the Business Cycle: An Introduction to the New Keynesian Framework and Its Applications. Second Edition. Princeton University Press. Chapters 1-5.

King, R.G.; Plosser, C.I.; Rebelo, S. (1988). Production, growth and business cycles: I. The basic neoclassical model. Journal of Monetary Economics 21, 195-232.

(*) Woodford, M. (2011): Simple Analytics of the Government Expenditure Multiplier. American Economic Journal: Macroeconomics 3(1), 1-35.