

Modern Econometrics using R

for Master Students

CONTENT

The course offers a survey of modern econometrics which is primarily designed to solve the fundamental evaluation problem. It will combine lecture style and practical exercises using R in class. Students should install RStudio before the first session. We will use RMarkdown in each session.

Topics covered are:

- Modern approach to Econometrics
- Fundamental evaluation problem
- Potential outcome approach
- Methods: OLS, IV, Matching, RCT, BAE, DiD, RDD
- Labor Market and Education

LECTURE

Time & Location:

- Friday, 3 May, 3 pm – 6 pm, Peterhof, room 4
- Saturday, 4 May, 10 am – 1 pm, KG1, room 1132
- Friday, 21 June, 3 pm – 6 pm, Peterhof, room 4
- Saturday, 22 June, 10 am – 1 pm, Peterhof, room 4
- Friday, 5 July, 3 pm – 6 pm, Peterhof, room 4
- Saturday, 6 July, 10 am – 1 pm, HS2121

EXAMINATION MODALITIES

Credit points 4 ECTS

Examination: Final Exam

Area of Study M.Sc. Economics:

E&P: Elective Courses

Finance: Elective Courses

ISNE: Elective Courses

VWL-Master, PO 2014:

Spezialisierungsbereich: Empirical Economics

Labor, Human Resource Management & Organization

LITERATURE

Main references:

Angrist, J.D., & Pischke, J. (2015): Mastering 'Metrics, The Path from Cause to Effect, Princeton University Press.

Angrist, J. D., & Pischke, J. (2017): Undergraduate Econometrics Instruction: Through our Classes, Darkly, Journal of Economic Perspectives, Vol. 31, 125-144.

Athey, S., & Imbens, G.W. (2017): The State of Applied Econometrics: Causality and Policy Evaluation, Journal of Economic Perspectives, Vol. 31, 3-32.

Boeri, T., & Van Ours, J. (2013). The economics of imperfect labor markets. 2nd edition. Princeton University Press.

Heiss, F. (2016): Using R for Introductory Econometrics, Düsseldorf.

3 and 4 May 2019

Introduction to modern econometrics: Randomized controlled Trials, Fundamental evaluation problem, Identification, Regression, ATT, ATE, ATU

Angrist, J.D., & Pischke, J. (2015): Mastering 'Metrics, The Path from Cause to Effect, Princeton University Press, 1-97.

Heiss, F. (2016): Using R for Introductory Econometrics, Düsseldorf, 1-89.

Fryer, R. G. (2014): Injecting charter school best practices into traditional public schools: Evidence from field experiments, The Quarterly Journal of Economics, 1355-1407.

21 and 22 June 2019

OLS versus Matching, OLS versus IV

Angrist, J.D., & Pischke, J. (2015): Mastering 'Metrics, The Path from Cause to Effect, Princeton University Press, 98-146 and 209-234.

Heiss, F. (2016): Using R for Introductory Econometrics, Düsseldorf, 219-225.

Hille, A., & Schupp, J. (2014): How Learning a Musical Instrument affects the Development of Skills, Economics of Education Review, 44, 56-82.

Imbens, G.W. (2015): Matching Methods in Practice: Three Examples, Journal of Human Resources, 50, No. 2, 373-419.

Winterhager, H., & Heinze, A., & Spermann, A. (2006): Deregulating Job Placement in Europe: A Microeconomic Evaluation of an Innovative Voucher Scheme in Germany", Labour Economics, 13, 505-517.

5 July and 6 July 2019

RDD and DiD

Angrist, J.D., & Pischke, J. (2015): Mastering 'Metrics, The Path from Cause to Effect, Princeton University Press, 147-208.

Becker, S.O. et al. (2018): Forced migration and human capital: Evidence from Post-WWII Population transfers, NBER Working Paper 24704.

Heiss, F. (2016): Using R for Introductory Econometrics, Düsseldorf, 197-206.