

# Course Descriptions Master 2022-2023

Course Title Empirical Econometrics 1  
 Course Code EBC4184  
 ECTS Credits 6,5  
 Assessment Whole/Half Grades

Period	Start	End	Mon	Tue	Wed	Thu	Fri
1	5-9-2022	21-10-2022	X		X		

Level Intermediate/Advanced  
 Coordinator Martin Schumann For more information:m.schumann@maastrichtuniversity.nl  
 Language of instruction English

Goals The purpose of this course is to review and discuss a number of econometric and statistical techniques that are essential for empirical research in economics.

Description PLEASE NOTE THAT THE INFORMATION ABOUT THE TEACHING AND ASSESSMENT METHOD(S) USED IN THIS COURSE IS WITH RESERVATION. A RE-EMERGENCE OF THE CORONAVIRUS AND NEW COUNTERMEASURES BY THE DUTCH GOVERNMENT MIGHT FORCE COORDINATORS TO CHANGE THE TEACHING AND ASSESSMENT METHODS USED. THE MOST UP-TO-DATE INFORMATION ABOUT THE TEACHING/ASSESSMENT METHOD(S) WILL BE AVAILABLE IN THE COURSE SYLLABUS.

This course is designed to teach students about modern applied microeconometrics. In this course, we will introduce popular econometric methods used in recent applied papers. To do so, we will review the main theory necessary for gaining an intuitive understanding of the method. Students will apply their knowledge using the statistical software packages R and Stata. To follow this course, students should be familiar with basic matrix algebra, probability theory and statistics.

Content:

1. Review of linear regression
2. Instrumental variables, Generalized Method of Moments
3. Panel data model
4. Difference-in-Differences
5. Regression Discontinuity Design
6. Nonlinear models
7. Mixed topics (e.g. basics of quantile regression, presentations)

Literature \* Wooldridge, J. M. (2010). Econometric analysis of cross section and panel data. 2nd edition, MIT press.  
 \* Greene, W. H. (2000). Econometric analysis, 8th edition, Pearson education.  
 \* Angrist, J. D., & Pischke, J. S. (2008). Mostly harmless econometrics. Princeton university press.  
 \* Cameron, A. C., & Trivedi, P. K. (2005). Microeconometrics: methods and applications. Cambridge university press.

Prerequisites We assume that the students entering the Research master and following this course have at least a level comparable to the IES bachelor course Empirical Econometrics; have a good working knowledge of matrix algebra, of integrals calculus and are familiar with concepts from probability theory and mathematical statistics.

Teaching methods Presentation / Lecture / Assignment / Papers / Groupwork

Assessment methods Final Paper / Attendance / Written Exam / Assignment / Presentation

Evaluation in previous academic year For the complete evaluation of this course please click <http://iwio-sbe.maastrichtuniversity.nl/rapporten.asp?referrer=codeUM>

This course belongs to the following programme / specialisation

Master Business Research - No specialisation	Year 2 Methodology Elective(s)
Master Business Research - Operations Research	Year 1 Elective Course(s)
Master Business Research - Operations Research	Year 2 Elective Course(s)
Master Economic and Financial Research - No specialisation	Year 1 Compulsory Course(s)