

Course Descriptions None 2021-2022

Course Title Econometric Methods II
 Course Code EBC2120
 ECTS Credits 6,5
 Assessment Whole/Half Grades

Period	Start	End	Mon	Tue	Wed	Thu	Fri
4	31-1-2022	25-3-2022			X	X	

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

Goals
 (1) Thorough understanding of standard econometric models and methods for the analysis of independent data; independent data are typically cross-sectional, as opposed to time series which are sequential and generally serially dependent.
 (2) Additionally, some practical experience with the application of the methods, the interpretation of the models, and the evaluation of inferences.
 (3) In particular, providing background and warming up for students about to write a Bachelor thesis on an empirical topic.

Description
 The course is designed as a follow-up to the second-year course Econometric Methods I (EBC2111), reviewing known methods somewhat more formally before introducing the new ones. The following topics will be covered.
 (1) The Normal regression model and Maximum Likelihood (ML)
 (2) Endogeneity and Instrumental Variable (IV) methods
 (3) Generalised Method of Moments (GMM)
 (4) Discrete choice models (LPM, logit, probit etc.)
 (5) Censoring and selection (tobit, heckit)
 (6) Linear equation systems (SURE, SEM)
 (7) Panel data models (POLS, FE, RE, FD ...).
 These topics will be treated at a fairly rigorous level, starting from abstract assumptions about a multivariate world described in terms of vectors and matrices.

Literature
 Hansen, Bruce E. (2018): Econometrics, University of Wisconsin webpage
<http://www.ssc.wisc.edu/~bhansen/econometrics/>
 Greene W.H. (2008): Econometric Analysis, 7th edition, Pearson Prentice Hall.
 Davidson R. & J.G. MacKinnon (2004): Econometric Theory and Methods, Oxford University Press.
 Wooldridge J.M. (2010): Econometric Analysis of Cross-Section and Panel Data, 2nd edition, MIT Press, Cambridge, MA. (First half).
 Cameron A.C. & P.K. Trivedi (2005): Microeconometrics, Cambridge University Press. (First half).

Prerequisites
 Linear algebra, mathematical statistics (EBC2107), Econometric Methods I (EBC2111) or the equivalent. Familiarity with statistical software like Stata or EViews and R.

Teaching methods PBL / Presentation / Lecture / Assignment / Groupwork / Skills
 Assessment methods Final Paper / Attendance / Participation / Written Exam / Assignment

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	Bachelor Econometrics and Operations Research	Year 3 Core Course(s)
	Bachelor Econometrics and Operations Research	Year 3 Elective Course(s)