

COURSE (MODULE) DESCRIPTION

Course title	Code
Microeconometrics	

Staff	Department
Coordinator(s): Assoc. Prof. Dr. Algirdas Bartkus	Department of Quantitative Methods and Modelling,
Other(s): Assoc.Prof. Andriy Stavytskyy	Faculty of Economics and Business Administration

Study cycle	Course type			
Second	Compulsory			

Form of implementation	Period of implementation	Language of instruction
Lectures and seminars	Autumn semester	English

Requirements for student						
Prerequisites:		Additional requirements:				
Basics of matrix algebra a	nd calculus on the level of	Introductory and intermedi	ate microeconomics on the			
Fundamental Methods of M	Aathematical Economics by	level of Intermediate Microe	conomics by Varian or simi-			
Chiang and Wainwright or si	imilar textbooks.	lar textbooks.				
Basics of mathematical an	d business statistics on the	the <i>Introductory and intermediate macroeconomics</i> on the				
level of Statistics for Business and Economics by New- level of textbooks written by Mankiw, Blanchard, Car			Mankiw, Blanchard, Carlin			
bold, Carlson and Thorne or	similar textbooks.	and Soskice or similar textbooks.				
Introductory econometrics	on the level of Basic Econo-					
metrics by Gujarati and Porte	er, Introduction to Economet-					
rics by Maddala and Lahiri c	or Introductory Econometrics					
by Wooldridge or similar tex	tbooks.					
Number of ECTS credits	Student's workload	Contact hours Individual work				
5	133	24	109			

Purpose of the course and competences developed

Principal goals are: a) to form the analytical skills in microeconometrics, b) to acquire necessary programming knowledge and skills in EViews c) to learn how to apply microeconometric modelling technics for the analysis of microeconomic, macroeconomic and managerial data.

The main skills that are trained under this program: a) empirical modelling of economic processes, using micro data, b) application of microeconometric techniques for micro data analysis, c) application of EViews software.

Learning outcomes	Teaching methods	Assessment methods
The ability to read advanced level economic	Problematic teaching, detailed expla-	Open questions during the
and econometric literature that deals with mi-	nation of the material during the lec-	exam and empirical project
cro data analysis.	tures and practical classes, self-study	based on real data.
The ability to design and to conduct appropri-	of theoretical material and accom-	
ate econometric analysis of micro data.	plishment of empirical project under	
The ability to apply EViews software for any	the supervision of lecturer.	
discussed micro data model.		

		Cor	ntact /	' Indiv	vidual	work	k: tim	e and a	ssignments
Course themes	Lectures	Consultations	Seminars	Practical classes	Lab works	Practice	Total contact hours	Independent work	Assignments
<i>Introduction to Microeconometrics.</i> (Econometric review, testing of hypothesis, choosing the best model, software application for modelling).	2				2		4	18	Reading of sci- entific literature, solving of prob-
<i>Quantile Regression</i> (Motivation of Quantile Re- gression, Quantile regression Estimation, Proper- ties of the Estimator, Example of Quantile regres- sion)	2				2		4	18	lems at home and during the seminars and ac- complishment of
<i>Binary-Valued Dependent Variables</i> (Pro- bit/Logit Models, Estimating a Probit/Logit Model, Deriving Probit/Logit)	2				2		4	18	empirical pro- ject.
<i>Multinomial models.</i> (Multinomial logit. Or- dered, sequential, and ranked outcomes. Multi- variate discrete outcomes.)	2				2		4	18	
<i>Tobit and selection models.</i> (Censored and trun- cated models. Tobit model. Heckman Selection Model)	2				2		4	18	
Panel Data Analysis (Panel Data, Panel Data DGP's, Fixed Effects, Random Effects, The Hausman Test)	2				2		4	19	
Total	12				12		24	109	

Assessment strategy	Share in %	Time of	Assessment criteria
		assessment	
Self works	10	During lab	Simple tasks to verify the skills obtained on computers.
		works	
Empirical project	30	During the	Technical aspects of the analysis are of the main im-
		exam	portance. The particular details will be disputed during
			lectures and practical classes.
Exam	60	Several days af-	Students will be asked to solve several empirical prob-
		ter the final lec-	lems and answer theoretical questions based on lecture
		ture	materials. Evaluation will take into account complete-
			ness of the answers.

Author	Published	Title	Issue No.	Publishing house
	in		or Volume	or Internet site
Compulsory literature				
Cameron, A. Colin	2005	Microeconometrics: Meth-		Cambridge University Press
Trivedi, Pravin K.		ods and Applications		
Wooldridge, Jeffrey M.	2010	Econometric Analysis of	2^{nd} ed.	The MIT Press
		Cross Section and Panel		
		Data		
Baltagi, Badi H.	2013	Econometric Analysis of	5^{th} ed.	John Wiley & Sons, Inc.
		Panel Data		
Biørn, Erik	2016	Econometrics of Panel Data:		Oxford University Press
		Methods and Applications		
Hsiao, Cheng	2014	Analysis of Panel Data	3^{rd} ed.	Cambridge University Press
Degryse, Hans	2009	Microeconometrics of Bank-		Oxford University Press
Kim, Moshe		ing: Methods, Applications,		
Ongena, Steven		and Results		
Lee, Myoung-jae	2010	Micro-Econometrics		Springer

		Methods of Moments and Limited Dependent Varia- bles		
Joseph M. Hilbe	2017	Logistic Regression Models		Chapman and Hall/CRC
Supplementary literatur	e			
Greene, William H.	2017	Econometric Analysis	8^{th} ed.	Pearson
Wiśniewski, Jerzy	2015	Microeconometrics in Busi-		John Wiley & Sons, Inc.
Witold		ness Management		
Adams, Abi,	2016	Microeconometrics and		Oxford University Press
Clarke, Damian		MATLAB: An Introduction		
Quinn, Simon				