UCLouvain

becge1330

2023

Econometrics

6.00 credits	45.0 h + 15.0 h	Q1

Teacher(s)	Claes Anouk ;
Language :	French
Place of the course	Bruxelles Saint-Louis
Prerequisites	*The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.*
Learning outcomes	**At the end of this learning unit, the student is able to :** The student should be able to: - understand basic econometric theory (regression) : identify, define and reproduce methods to estimate basic econometric models; - understand basic econometric theory : identify and explain basic econometric problems ; - apply basic econometric methods to economic problems and this using the Gretl software ; - analyze regression results, compare different models, criticize analyses and model relationships between different variables (in Gretl)
Evaluation methods	The evaluation of this course is based on : 1) A written closed book exam (80% of the final mark) based on theoretical concepts and practical econometric applications (using Gretl). Students will be asked to define, identify, and explain theoretical concepts, but also to analyze, interpret, comment and criticize regression results provided. 2) A group assignment (20% of the final mark) during which students need to to apply the theory and perform regression analyses and test in Gretl.
Teaching methods	A) Lectures During the lectures the theoretical concepts and regression methods will be explained. Regression analyses will be demonstrated using Gretl and the interpretation and analysis of the results will be integrated in the lectures. Students are encouraged to participate to class, answering to questions that are raised. B) Exercise Classes During the exercise classes students have the opportunity to perform regression analyses using the Gretl software and interpreting the results under the supervision of a teaching assistant. We recommend the students to review their lecture notes before participating to the exercise sessions.
Content	Introduction : recap from statistique approfondie and statistique appliquée : Simple Regression Multiple regression : Estimation and properties of estimators; Statistical tests; Analysis of variance (ANOVA); Forecasting; Regression models with dummy variables; Relaxing the assumptions of the classical model : Multicollinearity, heteroscedasticity and autocorrelation; Generalized least squares (GLS) Errors-in-variables models; instrumental variables; Introduction to qualitative variables in econometrics: the Probit, Logit and Tobit models. An introduction to panel regression
Inline resources	On the university's electronic platform the following additional information will be offered: - a copy of the slides used in class - (summary) course videos - the exercises that will be solved during the exercise sessions.
Bibliography	Jeffrey Wooldrige traduction de la 6ième édition américaine par Andre, Beine, Béreau, de la Rupelle, Durré, Gnabo, Heuchenne, Leturcq et Petitjean, 2018 deuxième édition. ISBN : 978-2-8073-0683-7
Faculty or entity in charge	ESPB

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Economics and Management	ECGB1BA	6	BECGE1232	
Bachelor in Economics and Management (French-English)	ECAB1BA	6	BECGE1232	
Bachelor in Economics and Management (French-Dutch-English)	ECTB1BA	6	BECGE1232	
Bachelor : Business Engineering	INGB1BA	6	BINGE1231	
Bachelor : Business Engineering (French-English)	INAB1BA	6	BINGE1231	
Bachelor : Business Engineering (French-Dutch-English)	INTB1BA	6	BINGE1231	