Course title	Econometrics	ECTS code	14.3.EM.PL.1111
		ECTS credits	6

Name of unit administrating study	OTHER	Field of study	MSG**	Field of specialisation	IB;
Teaching staff	Dorota Ciołek, Associate Professor				

Number of hours											
Lectures	15	Classes	0	Tutorials	0	Laboratory	15	Seminars	0	Language classes	0

Forma aktywności		Year&Type of studies*	1 SS2,
Hours with the participation of the academic teacher (including office hours, exams, others):	60	Semester:	2,
Hours without the participation of the academic teacher (student's self-study, homeworks):	90	Type of course:	obligatory
Total number of hours:	150	Language of instruction:	English

Teaching form	in-class learning
Teaching methods	Lectures including multimodal presentations, Work in computer laboratories,

Prerequisites (required courses and introductory requirements)

Required courses	
Introductory requirements	Student should be familiar with the principles of consumer and producer behavior, basic models of marker competition. General equilibrium and growth, international trade, capital and money markets. The knowledge of elementary linear algebra, differential ant integral calculus, statistical theory.

Assessment method, forms and criteria

Assessment method	Exam
Assessment criteria	1) The first stage - practical classes: Students are expected to write an essay dedicated to the verification of economic hypothesis which is well established in theory and was studied while attending the core courses in economics, using any data set from those accompanying GRETL or own data collected by the student, approximately 1500 words (excluding an appendix containing the statistical stuff, tables, references and other forms of documentation). The final assessment will be made upon the essay (60%) and the discussion with the lecturer (40%). 2) The second stage - final written exam (including econometric theory and interpreting estimation results).

Course objectives

Provide students with the elementary tools of quantitative in economics

Learning outcomes

Verification of learning outcomes - Knowledge

Outcomes	written exam	oral exam	test	essay/paper /portfolio	tasks/ homeworks	individual presentation	group presentation	classroom activities	classroom discussion	individual project	group project
MSG2_W01	X	X									
MSG2_W02	X			X							
MSG2_W08	X										

Verification of learning outcomes - Skills

Outcomes	written exam	oral exam	test	essay/paper /portfolio	tasks/ homeworks	individual presentation	group presentation	classroom activities	classroom discussion	individual project	group project

MSG2_U01				X							
MSG2_U02				X							
MSG2_U08		X		X		X					

Verification of learning outcomes - Attitudes

Outcomes	written exam	oral exam	test	essay/paper /portfolio	tasks/ homeworks	individual presentation	group presentation	classroom activities	classroom discussion	individual project	group project
MSG2_K01		X									
MSG2_K02		X									
MSG2_K04		X				X					

Course contents

1) The nature of economic data:- overview of the kinds of data sets that are used in business, finance, economics, and other social sciences - discussion of the difficulties associated with the inference of causality in the social sciences- econometrics as a tool of testing economic theories and evaluating policy effects when we must rely on nonexperimental data- econometric model used for predicting the dependent variable2) Simple and Multiple Linear Regression Model- the study the relationship between two variables - multiple regression analysis as the most widely used vehicle for empirical analysis in economics and other social sciences- interpretation of the regression model as a tool of ceteris paribus analysis3) Estimation of the parameters using the method of Ordinary Least Squares (OLS) - idea of OLS - interpreting the OLS regression equation- OLS fitted values and residuals- goodness-of-fit to the empirical values- statistical properties of OLS for the parameters in an underlying population model- consistency of OLS- the variance of the OLS estimators - efficiency- testing of OLS assumptions- robust standard errors 4) Model estimation - special issues - including irrelevant variables in a regression model- omitted variable bias- multicollinearity - highly correlated explanatory variables- outlying observations- using logarithmic functional forms- models with quadratics- models with interaction terms5) Regression of Qualitative Information: Dummy Variables- describing qualitative information - binary variable- dummy explanatory variable- interpreting Coefficients on Dummy Explanatory- dummy variables for multiple categories6) Time Series Data - Basic Regression - the nature of time series data- trends and seasonality- Unit Root tests and integrated values

Recommended reading lists

basic:Koop G., Introduction to Econometrics., John Wiley and Sons, (2008) Wooldridge J.M., Introductory Econometric. A modern approach. , South-Western Cengage Learning (4e - 2009 or 5e - 2013)Ramanathan R., Introductory Econometrics with Applications. South-Western, Mason (2002) addtional:Verbeek M., A guide to Modern Econometrics., John Wiley & Sons, Ltd (2e-2004)Greene W.H., Econometric analysis., Prentice Hall, Upper Saddle River, (2008)

Contact	dorota.ciolek@ug.edu.pl,

* SS1- undergraduate studies * SS2 - graduate studies * SDang - doctoral studies
** MSG - International Economic Relations