VYTAUTAS MAGNUS UNIVERSITY
M C M X X I I

TITLE OF THE COURSE:	ECONOMETRICS
Course code:	MAT5004
Course group:	C
Faculty:	Informatics
Study program:	Applied Mathematics
Level:	Master's
Semester:	Autumn
ECTS credits:	6
Language of instruction	
Course lecturer/s:	Prof. dr. R. Krikštolaitis
***Short course description*:**	Course objective – introduce to the most important statistical methods for analysis of economic data. In order to achieve these objectives, the course includes lectures and practical work. The main topics are: simple linear regression; multiply regression; violation of the assumption of the basic model, e.g. heteroscedasticity, autocorrelation, multicollinearity; dummy variables; simultaneous equations.
Course content:	Purpose of econometrics. Relation with economics. Linear regression model and least square method. Gauss–Markov theorem. Parameters estimation. Maximum likelihood method. Multiply regression. Multicollinearity and dummy variables. Heteroscedasticity and autocorrelation. Forecasting. Generalized least square method. Systems of simultaneous equations.
Grading and evaluating student work in class and/or at the final exam:	Final written exam (50%), mid-term written exam (25%), and assessments of homework work (25%).
Required reading and additional study material	G.S. Madala. Introduction to Econometrics. 3rd ed. 2001. B.E.Hansen. Econometrics. 2016. http://www.ssc.wisc.edu/~bhansen/econometrics/ Dougherty. Introduction to Econometrics. 2016. http://global.oup.com/uk/orc/busecon/economics/dougherty5e/
Additional information (if applicable)	