

SUBJECT:	Econometrics		
HOURS:	18	ECTS:	3

Name/title of the author:	Prof. Jacek Osiewalski
Course Description:	Econometrics develops formal statistical models and methods of inference in the case of economic data . It provides the tools for modelling and testing of relationships among economic variables as well as for economic forecasting. Thus, econometrics constitutes the methodological framework of empirical economics. According to the data characteristics and theoretical questions in particular economic theories, three main branches of econometrics have naturally appeared: macroeconometrics (dealing with relatively short, low-frequency time series of possibly related macroeconomic aggregates), financial econometrics (focusing on volatility on financial markets, which is estimated using high-frequency time series of asset prices) and microeconometrics (devoted to modelling of individual behaviour with the use of micro data). The course presents basic tools of macro- and microeconometrics, in particular the cointegration analysis for economic time series, the models for discrete choice and the production or cost frontier models. It is assumed that the student knows the linear regression model and statistical inference methods usually taught in courses of statistics and basic econometrics.
Learning Outcomes (skills and knowledge):	The student is expected to gain knowledge of relevant tools and terminology, which are necessary to understand empirical papers appearing in international economic journals, and to conduct empirical research on currently acceptable methodological level. The student is also expected to be able to study advanced econometrics on his/her own.
Course Content:	<ol style="list-style-type: none"> 1. Advanced econometrics – its tools and research areas 2. Introduction to time series analysis; AR and VAR processes 3. Cointegration and VECM 4. Binary and multiple choice models 5. Stochastic frontier models for <ul style="list-style-type: none"> - production or cost micro data - international growth comparisons
Methods of Instruction:	Lecture
Assessment policy (examination):	Final written exam: problem-solving exercises
References:	W.H. Greene, <i>Econometric Analysis</i> , Pearson Prentice Hall, Upper Saddle River (NJ) 2008 (or other, new edition)