

Course title	Advanced Statistical Methods						ECTS code	14.3.EE.OL.0			
							ECTS credits	4			
							max. students	30			
Name of unit administrating study	OTHER	Field of study	Economics	Field of specialisation							
Teaching staff	Michał Suchanek, Ph.D.										
Number of hours											
Lectures	0	Classes	0	Tutorials	0	Laboratory	24	Seminars	0	Language classes	0
Forma aktywności							Year&Type of studies*	2 SDang,			
Hours with the participation of the academic teacher (including office hours, exams, others):							Semester:	4,			
Hours without the participation of the academic teacher (student's self-study, homeworks):							Type of course:	optional			
Total number of hours:							Language of instruction:	English			
Teaching form	in-class learning										
Teaching methods	Work in computer laboratories, Individual projects, Discussion, questioning,										
Prerequisites (required courses and introductory requirements)											
Required courses											
Introductory requirements	Knowledge and understanding of basic statistical and econometric methods										
Assessment method, forms and criteria											
Assessment method	Course completion (graded)										
Assessment criteria	Students will be graded based on a project in which they use one of the covered methods to analyse the data connected with their thesis.										
Course objectives											
<p>The goal of the subject is to acquaint the students with the contemporary, widely-used statistical methods so that they are able to understand and correctly interpret current literature and also to make sure that they are able to use the methods necessary to perform research for their thesis. The course consists of two parts. The first part has a form of workshops during which the students use advanced methods based on prepared data. In the second part, they use one of the methods to prepare a project which is focused on the analysis of the data necessary for their doctoral thesis.</p>											
Learning outcomes											
Course contents											
<ol style="list-style-type: none"> 1. Discriminant analysis 2. Principal component analysis (PCA) 3. Factor Analysis 4. Log-linear analysis 5. Correspondence analysis 6. Survival analysis 7. Multivariate analysis of variance (MANOVA) 8. Structural equation modelling (SEM) 9. Practical use of advanced statistical methods 											



Recommended reading lists

R.B. Kline, Principles and practice of structural equation modeling, The Guilford Press 2016

J.L. Devore, K.N. Berk, Modern Mathematical Statistics with Applications, Springer 2018

C. Hirotsu, Advanced Analysis of Variance, Wiley & Sons 2017

Contact

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