



Subject card

Subject name and code	Forecasting and Simulation, PG_00049645						
Field of study	Economic Analytics						
Date of commencement of studies	October 2022	Academic year of realisation of subject			2023/2024		
Education level	second-cycle studies	Subject group			Obligatory subject group in the field of study Subject group related to scientific research in the field of study		
Mode of study	Part-time studies	Mode of delivery			at the university		
Year of study	2	Language of instruction			Polish		
Semester of study	3	ECTS credits			3.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Economic Sciences -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor						
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	8.0	0.0	16.0	0.0	0.0	24
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan	Participation in consultation hours	Self-study	SUM		
	Number of study hours	24	4.0	47.0	75		
Subject objectives	The aim of the course is to gain in-depth knowledge about economic phenomena forecasting with elements of simulation, about selection of appropriate methods and verification of received forecasts.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_U02] can use theoretical knowledge in the field of economics and finance to obtain, analyse and interpret data on economic processes and phenomena and on their basis formulate own opinions	The student collects relevant information, constructs forecasts and verifies their accuracy.			[SU1] Assessment of task fulfilment		
	[K7_W02] has a broadened knowledge of how to describe economic phenomena using quantitative methods	The student describes economic processes using advanced quantitative methods.			[SW1] Assessment of factual knowledge		
	[K7_U14] can improve oneself through the systematic acquisition of knowledge and skills	The student proposes the use of appropriate forecasting methods depending on the nature of phenomena.			[SU1] Assessment of task fulfilment		
	[K7_U04] can forecast complex socio-economic processes and phenomena using advanced methods and tools for the analysis of quantitative and qualitative data	The student selects appropriate methods and calculates the prediction of complex socio-economic phenomena.			[SU4] Assessment of ability to use methods and tools		
	[K7_W11] has a broadened knowledge of socio-economic phenomena and processes, understanding their determinants and consequences	The student identifies the relationship between the variables in the process of forecasting and simulation.			[SW1] Assessment of factual knowledge		

Subject contents	<p>Introduction to the issues of forecasting and simulations - the basic concepts.</p> <p>Evaluation of the quality of forecasting models and forecasts.</p> <p>Adaptive forecasting methods - overview.</p> <p>Forecasting based on linear and nonlinear trend, with and without seasonal fluctuations.</p> <p>Other forecasting methods based on time series data.</p> <p>Assumptions for forecasting based on econometric models.</p> <p>Forecasting based on cause-effect econometric models - conditional forecasts.</p> <p>The use of autoregression models in forecasting.</p> <p>Forecasting under the autocorrelation of the random component.</p> <p>Forecasting in conditions of instability of structural parameters.</p> <p>Forecasting based on multi-equation models.</p> <p>Qualitative data models in forecasting.</p>											
Prerequisites and co-requisites	Statistics, Econometrics											
Assessment methods and criteria	<table border="1" data-bbox="448 1093 1477 1205"> <thead> <tr> <th data-bbox="448 1093 794 1137">Subject passing criteria</th> <th data-bbox="794 1093 1141 1137">Passing threshold</th> <th data-bbox="1141 1093 1477 1137">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 1137 794 1171">task</td> <td data-bbox="794 1137 1141 1171">51.0%</td> <td data-bbox="1141 1137 1477 1171">50.0%</td> </tr> <tr> <td data-bbox="448 1171 794 1205">written test</td> <td data-bbox="794 1171 1141 1205">51.0%</td> <td data-bbox="1141 1171 1477 1205">50.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	task	51.0%	50.0%	written test	51.0%	50.0%
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Example issues/ example questions/ tasks being completed	Check the desirability of the use of selected adaptive method for forecasting the exchange rate for the next period.											
Work placement	Not applicable											