

Subject card

Subject name and code	Forecasting of Economic Processes, PG_00084134						
Field of study	Economics						
Date of commencement of studies	October 2024	Academic year of realisation of subject			2025/2026		
Education level	Master's studies	Subject group			Obligatory subject group in the field of study		
Mode of study	full-time studies	Mode of delivery			at the university		
Year of study	2	Language of instruction			Polish		
Semester of study	3	ECTS credits			2.0		
Learning profile	academic	Assessment form			credit		
Conducting unit	Department of Logistics -> Faculty of Economics -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		mgr Patryk Wierzbowski				
	Teachers		dr Beata Chmiel mgr Patryk Wierzbowski				
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	15.0	0.0	0.0	0.0	15
	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	15		0.0		0.0	15
Subject objectives	To introduce students to the basic methods of forecasting economic processes and to impart the ability to use them in practice To familiarise students with the possibilities of using the Statistica programme for forecasting economic processes.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[EKONMU2_U07] can independently propose solutions to complex economic or social problems, select methods of analysis and conduct conclusive procedures in this respect	The student is able to select methods for forecasting economic processes and parameters for assessing the quality of forecasts.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written [SU8] observation of student's independent or team work
	[EKONMU2_U02] can use acquired knowledge to describe and analyse the causes and course of economic and social processes and phenomena, and can formulate his/her own opinions and critically select data and analysis methods based on the achievements of economic and social sciences	The student is able to use his/her knowledge to describe and analyse the causes and course of economic processes and phenomena.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written [SU8] observation of student's independent or team work
	[EKONMU2_K01] recognises the importance of knowledge in the field of economics in the process of identifying and solving economic problems and of consulting experts when having difficulties in solving them independently	The student recognises the importance of knowledge in the forecasting process and of consulting experts when having difficulty finding solutions on their own.	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report [SK4] test/exam - oral or written [SK8] observation of student's independent or team work
	[EKONMU2_W06] knows in advanced stage statistical and econometric methods and tools for description and macro- and microeconomic modelling of economic structures and public institutions and processes occurring in them	Student knows selected methods and tools for describing and forecasting economic processes	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[EKONMU2_K05] correctly identifies, diagnoses and solves dilemmas and alternative solutions related to the profession	The student identifies, diagnoses and resolves dilemmas and different options for solutions related to forecasting.	[SK1] oral statement/conversation/discussion [SK2] presentation/project/paper/report [SK4] test/exam - oral or written [SK8] observation of student's independent or team work
	[EKONMU2_W03] has an in-depth knowledge of relations between economic phenomena, entities and organisations as well as public institutions functioning in the national, international and intercultural spheres	The student has an in-depth knowledge of economic processes.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion [SW2] presentation/project/paper/report
	[EKONMU2_U13] can manage teamwork as well as interact and work in a team (including in an international environment) assuming a leading role in it	The student is able to work as part of a team, taking on various roles within the team, including leadership.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written [SU8] observation of student's independent or team work
	[EKONMU2_U04] can forecast and model complex economic and social processes using quantitative and qualitative methods and tools developed by economic sciences (including statistics and econometrics)	The student is able to use his/her knowledge to describe and analyse the causes and course of economic processes and phenomena.	[SU1] oral statement/conversation/discussion [SU2] presentation/project/paper/report [SU4] test/exam - oral or written [SU8] observation of student's independent or team work

Subject contents	<p>1. Introduction to the Statistica package as a tool to support data analysis documents in Statistica, elements of a worksheet, variable specification window, case name manager, programme modules, importing data from another application, validating data, creating subsets, creating your own worksheet</p> <p>2 The essence of forecasting Definitions of forecasting and forecasting, functions and classifications of forecasts, overview of forecasting methods, parameters for assessing the quality of forecasts, costs of forecasting</p> <p>3 Organisation of the forecasting process Stages of forecasting: formulation of a forecasting task, provision of forecasting rationale, selection of a forecasting method, determination of a forecast, evaluation of forecast acceptability, verification of a forecast</p> <p>4 Heuristic forecasting methods Essence of heuristic methods, brainstorming, Delphi method, questionnaire survey</p> <p>5 Analogue forecasting Essence of analogue forecasting, historical analogies, spatial-temporal analogies</p> <p>6 Time series models Concept of a time series, components of a time series, time series models</p> <p>7 Classical trend models Analytical models, adaptive model</p> <p>8. exponential smoothing models Simple Brownian exponential smoothing model, Holt's two-parametric exponential smoothing model, Winter's three-parametric exponential smoothing model</p> <p>9. forecasting on the basis of autoregressive models AR autoregressive process, MA moving average process, autoregressive process and mean</p>														
Prerequisites and co-requisites	Realised learning outcomes in terms of knowledge and skills in the subjects: Macroeconomics III, Managerial economics, Applications of econometrics, Instrumentation of economic research. Basic economic knowledge.														
Assessment methods and criteria	<table border="1" data-bbox="448 703 1487 869"> <thead> <tr> <th data-bbox="448 703 798 734">Subject passing criteria</th> <th data-bbox="802 703 1141 734">Passing threshold</th> <th data-bbox="1145 703 1487 734">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 741 798 772">assessment test</td> <td data-bbox="802 741 1141 772">51.0%</td> <td data-bbox="1145 741 1487 772">70.0%</td> </tr> <tr> <td data-bbox="448 779 798 833">Active participation in classes (possibility of earning extra points)</td> <td data-bbox="802 779 1141 833">0.0%</td> <td data-bbox="1145 779 1487 833">0.0%</td> </tr> <tr> <td data-bbox="448 840 798 869">project</td> <td data-bbox="802 840 1141 869">51.0%</td> <td data-bbox="1145 840 1487 869">30.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	assessment test	51.0%	70.0%	Active participation in classes (possibility of earning extra points)	0.0%	0.0%	project	51.0%	30.0%
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Example issues/ example questions/ tasks being completed	-														
Work placement	Not applicable														

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