Course title	Forecasting of Economic Processes		ECTS code	14.3.EE.KZ.3574
			ECTS credits	1

Name of unit administrating study	KL	Field of study	Economics	Field of specialisation	L&M;

Teaching staff	Leszek Reszka, Associate Professor

Number of hours											
Lectures	0	Classes	0	Tutorials	0	Laboratory	15	Seminars	0	Language classes	0

Forma aktywności		Year&Type of studies*	2 SS2,
Hours with the participation of the academic teacher (including office hours, exams, others):		Semester:	3,
Hours without the participation of the academic teacher (student's self-study, homeworks):		Type of course:	obligatory
Total number of hours:	0	Language of instruction:	English

Teaching form	in-class learning
Teaching methods	Activating methods in training classes, Work in computer laboratories, Lectures including multimodal presentations, Case studies, Collaborating, group activities,

Prerequisites (required courses and introductory requirements)	
Required courses	Managerial Economics, Macroeconomics, Econometrics
Introductory requirements	Basic economic knowledge

Assessment method, forms and criteria	
Assessment method	Course completion (graded)
Assessment criteria	Student's work during the course is observed on an ongoing basis by the teacher, and constitutes, in addition to the project and the test, the basis for the final mark of the course. The project concerns the use of the presented forecasting methods in a company.

Course objectives
The aim of the course is to familiarize students with methods of forecasting used in a company and to acquire practical skills in their use. Moreover, the aim of the course to familiarize students with the possibilities of using Statistica to forecast economic processes.

Learning outcomes		
Knowledge	E2_W03	Student has an in-depth knowledge of relations between economic entities and organisations functioning in the national
	E2_W06	Student knows econometric methods and tools for description and macro- and microeconomic modelling of economic structures and public institutions and processes occurring in them

Verification of learning outcomes - Knowledge

Outcomes	written exam	oral exam	test	essay/paper /portfolio	tasks/ homeworks	individual presentation	group presentation	classroom activities	classroom discussion	individual project	group project
E2_W03			X					X			X
E2_W06			X					X			X
Skills	E2_U02				Student can use acquired knowledge to describe and analyse the causes and course of economic processes and phenomena, and can formulate his/her own opinions and critically select data and analysis methods based on the achievements of economic sciences						
	E2_U04				Student can forecast complex economic processes using quantitative and qualitative methods and tools developed by economic sciences						

	E2_U07	Student can independently propose solutions to complex economic problems, select methods of analysis and conduct conclusive procedures in this respect
	E2_U13	Student can work in group, manage teamwork as well as interact and work in a team assuming a leading role in it

Verification of learning outcomes - Skills											
Outcomes	written exam	oral exam	test	essay/paper /portfolio	tasks/ homeworks	individual presentation	group presentation	classroom activities	classroom discussion	individual project	group project
E2_U02								X			X
E2_U04								X			X
E2_U07								X			X
E2_U13											X

Attitudes	E2_K01	Student recognises the importance of knowledge in the field of forecasting of economic processes
	E2_K02	Student inspires and organises preparation of economic projects
	E2_K05	Student correctly identifies, diagnoses and solves dilemmas and alternative solutions related to the forecasting

Verification of learning outcomes - Attitudes											
Outcomes	written exam	oral exam	test	essay/paper /portfolio	tasks/ homeworks	individual presentation	group presentation	classroom activities	classroom discussion	individual project	group project
E2_K01								X			X
E2_K02								X			X
E2_K05								X			X

Course contents

1. Introduction to the Statistica package

- documents in Statistica,
- worksheet elements,
- variable specification window,
- program modules,
- importing data from another application,
- data validation,
- creating subsets,
- creating own worksheet

2. The essence of forecasting

- Definitions of forecast and forecasting,
- functions and classifications of forecasts,
- parameters of the evaluation of forecasting quality,
- costs of forecasting

3. Forecasting methods

- Time series models (trend estimation, adaptive models)
- Cause-effect econometric model
- Brain storming
- Delphi method
- Surveys

- Scenario building
- Forecast by analogy
- Artificial neural networks

Recommended reading lists

- J. W. Wiśniewski: Microecometrics in Business Management, Wiley 2016
- G. Elliott: Economic Forecasting, Princeton University Press, 2016
- M. K. Evans: Practical Business Forecasting, Blackwell Publishers, 2009
- M. H. Spencer: Business and Economic Forecasting, an Econometric Approach, Hassell Street Press, 2021
- L. Reszka: Econometric Forecasting in Logistics Support System for Small Enterprise [in:] N. Fabbes-Coste, M. Koulikoff-Souviron (red.): Ninth ELA Doctorate Workshop 2004. European Logistics Association 2004

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