GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	INTRODUCTION TO ECONOMIC FORECASTING, PG_00070831		
Field of study	Economic Analytics		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
Education level	first-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	Full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	4.0
Learning profile	general academic profile	Assessment form	exam
Conducting unit	Department of Statistics and Econometrics -> Faculty of Management and Economics -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Aneta Sobiechowska	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	30.0	0.0	30.0	0.0	0.0	60

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	60	3.0	37.0	100

Subject objectives

preparing students to select and apply appropriate forecasting methods based on knowledge of economic data analysis and econometrics.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K6_W05] possesses advanced knowledge in integrating data from various sources and in methods that enable a comprehensive analysis of economic problems.	has knowledge and understanding of advanced methods of integrating data from multiple sources in the context of their use in economic forecasting.	[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects
[K6_U07] uses advanced information technologies to enhance data analysis and decision-making processes.	is able to select an appropriate forecasting method based on the behavior of a phenomenon over time, applying econometric and statistical methods to obtain results of economic and social relevance.	[SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools [SU5] Assessment of ability to present the results of task
[K6_K03] is prepared to critically assess the knowledge they possess, which is necessary for solving cognitive and practical problems, and to supplement any gaps with opinions from external experts.	is ready to critically evaluate forecasting results and applied methods, recognize the limitations of their knowledge in economic forecasting.	[SK5] Assessment of ability to solve problems that arise in practice

Subject contents	Course content – lecture 1. Basic concepts and issues related to forecasting. 2. Types of forecasts, methods and variables. 3. Measurement of the quality of forecasts. 4. Naive and adaptive methods of forecasting - introduction. 5. Simple and weighted moving averages. 6. Exponential smoothing - Brown, Holt and Winters model. 7. Heuristic methods and analog forecasting. 8. Scenarios and warning forecasts. 9. Mega trends - forecasts for the world and Poland 10. Forecasting selected elements of the macro-environment of the enterprise. 11. Forecasting selected elements of the micro-environment of the enterprise. 12. Forecasting variables in the enterprise. Course content – laboratory 1. Basic concepts and issues related to forecasting. 2. Types of forecasts, methods and variables. 3. Measurement of the quality of forecasts. 4. Naive and adaptive methods of forecasting - introduction. 5. Simple and weighted moving averages. 6. Exponential smoothing - Brown, Holt and Winters model. 7. Heuristic methods and analog forecasting. 8. Scenarios and warning forecasts. 9. Mega trends - forecasts for the world and Poland 10. Forecasting selected elements of the macro-environment of the enterprise. 11. Forecasting selected elements of the micro-environment of the enterprise. 12. Forecasting variables in the enterprise.
Prerequisites and co-requisites	microeconomics basics of statistics macroeconomics

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Assessment of the report and presentation as part of a group project.	60.0%	25.0%
Written exam – open-ended questions section	60.0%	25.0%
Written exam – multiple-choice section	60.0%	25.0%
Solving calculation tasks during the written midterm exam	60.0%	25.0%

Recommended reading

Basic literature	1. Cieślak, M. (2022). Prognozowanie gospodarcze metody i zastosowania. Warszawa: PWN. 2. Dittmann, P.(2008). Prognozowanie w przedsiębiorstwie metody i ich zastosowania. Kraków: Wolters Kluwer. 3. Dittmann, P, Szabela-Pasierbińska, E., Dittmann, I., Szpulak, A. (2017). Prognozowanie w zarządzaniu przedsiębiorstwem. Warszawa: Wydawnictwo Nieoczywiste 4. Zeliaś, A., Pawełek, B., Wanat S. (2003). Prognozowanie ekonomiczne, teoria, przykłady, zadania. Warszawa; PWN.
Supplementary literature	1. Bukowski, M., Śniegowski, A., (2017). Megatrendy. Od akceptacji do działań. Warszawa: WiseEuropa-Fundacja Warszawski Instytut Studiów Ekonomicznych i Europejskich. 2. Krys, Ch., Born, D.(2020). Trend Compendium 2050 Six megatrends that will shape the world. Munich: Roland Berger. 3. Future State 2030. Światowe wyzwania dla liderów i przywódców (2014), KPMG International, MOWAT.
eResources addresses	

Example issues/ example questions/ tasks being completed	Based on data from stat.gov.pl / macroeconomic indicators for the selected economic variable. • Make a graph of the analysed variable and determine the nature of its changes in the analysed period. • Predict this variable for the next period using the appropriate adaptive method. • evaluate the suitability of the selected method on the basis of the forecast quality measures in the adopted test period. • Interpret the obtained results.
Practical activites within the subject	Not applicable