University of Gdańsk

Subject card

Subject name and code	Business Forecasting, PG_00200445						
Field of study	Logistics and Mobility						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2027/2028			
Education level	Master's 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	English			
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	dr Beata Chmiel					
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	15.0	0.0	15.0	0.0	30
	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	30		0.0	20.0	50	
Subject objectives	The aim of the subject is to acquaint students with forecasting methods used in an enterprise and to acquire practical skills in their application. In addition, the aim of the subject is to acquaint students with the possibilities of using the Statistica program for business forecasting.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[LMMU2_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 in a team, taking a leading role in it.	[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
[LMMU2_U07] can independently propose solutions to complex logistics and mobility problems, select methods of analysis and conduct conclusive procedures in this respect	The student is able to independently propose solutions to complex problems, select methods of analysis and carry out conclusive procedures in this regard.	[SU1] oral statement/conversation/ discussion [SU4] test/exam - oral or written [SU8] observation of student's independent or team work
[LMMU2_W06] has an in-depth knowledge of statistical and econometric methods and tools for description and macro- and microeconomic modelling of logistics and mobility processes and systems	The student knows and understands the methods and tools for describing economic processes and systems, enabling the construction of a forecasting model.	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion
[LMMU2_K02] is aware of the level of his/her knowledge in the field of logistics and mobility; understands the need to extend and update this knowledge throughout his/her life	The student is aware of the level of her/his knowledge of business forecasting; understands the need to expand and update this knowledge throughout her/his life.	[SK1] oral statement/conversation/ discussion [SK4] test/exam - oral or written [SK8] observation of student's independent or team work
[LMMU2_U04] can forecast and model complex economic and social processes, as well as logistics and mobility processes and systems using quantitative and qualitative methods and tools developed by economic sciences (including statistics and econometrics)	The student student is able to forecast complex economic processes using quantitative and qualitative methods and tools developed by economic sciences (including statistics and econometrics).	[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
[LMMU2_K01] recognises the importance of knowledge in the field of logistics and mobility in the process of identifying and solving work-related problems and of consulting experts when having difficulties in solving them independently	The student recognizes the importance of knowledge of business forecasting in the process of identifying and solving work-related problems and consulting experts in case of difficulties in solving them independently.	[SK1] oral statement/conversation/ discussion [SK4] test/exam - oral or written [SK8] observation of student's independent or team work
[LMMU2_K05] correctly identifies, diagnoses and solves dilemmas and alternative solutions related to the profession	The student correctly identifies, diagnoses and solves dilemmas and alternatives related to the business 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
[LMMU2_U02] can use acquired knowledge to describe and analyse the causes and course of logistics and mobility processes and systems, 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 select and apply quantitative and qualitative methods and tools developed by the economic sciences, including advanced IT tools.	[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
[LMMU2_W03] has a knowledge of relations between economic entities and organisations functioning in the national, international and intercultural spheres; understands importance logistics and mobility for their operation	The student knows and understands the importance of forecasting in the management of a business entity.	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion

<table>
<tr><td>Subject contents</td><td>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, forecasts by analogy

Any doubts regarding the issues discussed will be dispelled during the consultation.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Knowledge of the nature of the econometric model and the skills to apply it in selected areas.</td></tr>
<tr><td>Assessment methods and criteria</td><td><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Project</td><td>0.0%</td><td>20.0%</td></tr>
<tr><td>Assessment test</td><td>51.0%</td><td>80.0%</td></tr>
<tr><td>Active participation in classes (extra points possible)</td><td>0.0%</td><td>0.0%</td></tr>
</table></td></tr>
<tr><td>Recommended reading</td><td><table>
<tr><td>Basic literature</td><td>1. G. Elliott, A. Timmermann, Economic Forecasting, Princeton University Press, Princeton, Oxford 2016
2. J. W. Wisniewski: Microecometrics in Business Management, Wiley 2016
3. N. Vandeput, Data Science for Supply Chain Forecasting, De Gruyter, 2021</td></tr>
<tr><td>Supplementary literature</td><td>1. M. K. Evans: Practical Business Forecasting, Blackwell Publishers, 2009
2. M. H. Spencer: Business and Economic Forecasting, an Econometric Approach, Hassell Street Press, 2021
3. L. Reszka: Econometric Forecasting in Logistics Support System for Small Enterprise [w:] N. Fabbes-Coste, M.
4. Koulikoff-Souviron (red.): Ninth ELA Doctorate Workshop 2004. European Logistics Association 2004</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
</table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>-</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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