University of Gdańsk

Subject card

Subject name and code	Diploma Seminar 1, PG_00178696						
Field of study	Informatics and Econometrics						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2027/2028		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Optional subject group 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	3		Language of instruction		Polish		
Semester of study	5		ECTS credits		2.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Department of Econometrics -> Faculty of Management -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Marta Chylińska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	0.0	30.0	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		4.0		16.0	50
Subject objectives	Preparation of the table of contents, the first chapter, and data collection for the thesis in accordance with ethical requirements and the writing standards specified by the Dean of the Faculty.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[IiEL3_W05] To an advanced degree, the student knows and understands the methods, techniques and informatics or statistics tools used to acquire, collect, process and present data in decision-making processes.	The student is able to independently propose a solution to a specific research problem related to their thesis.	[SW3] text preparation/written work
	[IiEL3_U02] Students can select or construct econometrics, informatics or statistics tools and apply them to describe and solve economic and social problems.	The student is able to prepare a written paper using theoretical elements and present the results of an independently conducted empirical study.	[SU3] text preparation/written work
	[IiEL3_U10] The student can convey information clearly and effectively, presenting their opinions using econometrics, informatics, and statistics terminology across various media.	The student is able to select an appropriate econometric model or statistics methods to solve selected problems in the fields of economics and finance, as well as management and quality sciences.	[SU3] text preparation/written work
	[IiEL3_U07] The student can prepare written papers, presentations, and oral speeches on problems in econometrics, informatics, or statistics.	The student is able to independently prepare their thesis.	[SU3] text preparation/written work
	[IiEL3_K01] The student is prepared to acquire the knowledge necessary to tackle cognitive and practical problems, particularly in econometrics, informatics and statistics. Additionally, the students are ready to assess their current knowledge and the information they receive critically and consult with experts if they have difficulties solving the problem independently.	The student is ready to describe, analyze and interpret economic and financial phenomena.	[SK3] text preparation/written work
	[IiEL3_U01] The student can analyze and interpret social and economic processes and phenomena using knowledge and econometrics, informatics or statistics tools from management and quality sciences, economics and finance.	The student is able to propose a solution to a specific research problem related to their thesis.	[SU3] text preparation/written work

Subject contents	**Seminar Scope** This bachelor's seminar focuses on applying and comparing classical methods (econometrics and statistics) with Big Data approaches. The thematic scope of the seminar includes: Measures of uncertainty and instability in financial markets Financial instrument valuation The impact of geopolitical events on market performance Assessing the effects of crises on financial instrument valuation Other topics proposed by students Examples of Thesis Topics The impact of the war in Ukraine on agricultural commodity prices Valuation of metal futures contracts during periods of financial market instability Relationships between futures contract prices The impact of war on stock market indices across international markets Determinants of demand for musical instruments using a panel data approach Econometric analysis of the determinants of football players' market value in leading European leagues Economic consequences of armed conflicts: the case of the Russian-Ukrainian war The relationship between economic growth and public health in Balkan countries **PhD Marta Chylińska** The seminar focuses on modeling and forecasting processes occurring in financial markets and covers topics such as: Forecasting returns on financial instruments using time series of various frequencies and evaluating forecast accuracy. Asset pricing using factor models. The theses place particular emphasis on data analysis and the application of statistical and econometric methods. Examples of Thesis Topics Stock price volatility and trading volume: evidence from companies listed in the WIG Index.

Sectoral risk on the Warsaw Stock Exchange.

PhD Agnieszka Martynowska

Modeling demographic phenomena, such as mortality and migration.

Development of various branches of economics in Poland and/or selected countries.

Applications of econometric models to study, for example, housing prices or the number of loans granted.

Comparison of countries or regions in terms of selected economic, social, or demographic indicators.

Any topic proposed by the student and agreed upon with the supervisor.

PhD Anna Gierusz-Matkowska

Social and economic statistics (e.g., inequality, poverty, inflation, national accounts).

Statistical methods in the analysis of social and economic phenomena (e.g., unemployment, regional development, standard of living).

Survey research.

Any other topic upon agreement with the supervisor.

Selected Bachelor's Thesis Titles

Analysis of the profitability of alternative investments

Living standards of farmers between 2006 and 2022

Comparative analysis of quality of life in two-parent and single-parent families in 2011 and 2021

Minimum wage and the economic situation of low-income households between 2002 and 2023

Statistical analysis of unemployment in the Pomeranian Voivodeship between 2010 and 2022

Analysis of divorce trends in Poland between 2005 and 2019

Economic development in the West Pomeranian Voivodeship compared with other regions of Poland

PhD Olga Komorowska

Survey sampling methodology

Sampling design techniques

Data collection methods

Nonresponse and data imputation

	Questionnaire design and measurement errors Data processing and preparation for analysis Statistical hypothesis testing Analysis of variance (ANOVA) Generalized regression models Data classification methods Clustering methods Computer simulations Data visualization The R programming environment **PhD Arkadiusz Kozłowski** Analysis of socio-economic phenomena using statistical, econometric, or actuarial methods (e.g., labor markets, financial markets, insurance markets, or pension systems). Statistical analysis and development of a selected economic market sector (e.g., the insurance market). Analysis of demographic phenomena (e.g., migration, mortality, population ageing, depopulation) in Poland or other selected countries. Comparative statistical analysis of selected variables (e.g., enterprises or administrative units such as counties, provinces, macro-regions, countries, or continents) across time and space. Topic selection based on the student's interests and field of study, subject to agreement with the supervisor. **PhD Agnieszka Pobłocka**
Prerequisites and co-requisites	Knowledge of mathematics, statistics and econometrics.
Assessment methods and criteria	

Subject passing criteria	Passing threshold	Percentage of the final grade
The first chapter of the bachelor's thesis accepted by the supervisor	51.0%	100.0%

Recommended reading	Basic literature	1. Literatura wykorzystana przez studenta do napisania pracy dyplomowej, zweryfikowana przez osobę prowadzącą seminarium dyplomowe 2. W. Czakon (red), Podstawy metodologii badań w naukach o zarządzaniu. Wyd. Nieoczywiste, Warszawa, 2016
	Supplementary literature	M. Ćwiklicki, Metodyka przeglądu zakresu literatury (scoping review), MPRA, 2020; do pobrania: https://mpra.ub.uni-muenchen.de/104370/1/MPRA_paper_104370.pdf
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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