

Subject card

Subject name and code	Sampling Methods, PG_00178719						
Field of study	Informatics and Econometrics						
Date of commencement of studies	October 2026	Academic year of realisation of subject			2026/2027		
Education level	Master'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	part-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	2	ECTS credits			4.0		
Learning profile	academic	Assessment form			exam		
Conducting unit	Department of Statistics -> Faculty of Management -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Arkadiusz Kozłowski				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	8.0	0.0	16.0	0.0	0.0	24
	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	24		1.0		75.0	100
Subject objectives	The aim of the course is to familiarize students with the theory and practice of sample research, basic sample designs and methods of estimating population parameters based on random samples.						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[liEMU2_W06] The student possesses a structured understanding of the processes, methods, and tools necessary for the design, creation, development, and provision of suitable conditions for informatics, econometrics or statistics tools.		The student matches the methods of sample selection for a sample survey. The student characterizes the methods of estimating finite population parameters and assessing sampling errors.			[SW4] test/exam - oral or written	
	[liEMU2_U01] The student can creatively and profoundly analyze complex social and economic processes using structured knowledge, econometrics, informatics, or statistics tools.		The student determines the optimal method of sample selection for a sample survey, draws a sample according to a specific scheme, estimates unknown population parameters, evaluates the accuracy of estimates, incorporates information from outside the sample into the estimation process by weighing units and calibrating weights.			[SU2] presentation/project/paper/report	

Subject contents	<p>The essence of survey sampling.</p> <p>Sampling design and estimation methods.</p> <p>Simple random sampling. Simple and complex estimation.</p> <p>Stratified sampling.</p> <p>Cluster and multistage sampling.</p> <p>Nonresponses and calibration approach.</p>											
Prerequisites and co-requisites	Knowledge of the basics of probability and mathematical statistics											
Assessment methods and criteria	<table border="1" data-bbox="451 622 1477 723"> <thead> <tr> <th data-bbox="451 622 794 656">Subject passing criteria</th> <th data-bbox="794 622 1137 656">Passing threshold</th> <th data-bbox="1137 622 1477 656">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="451 656 794 689">Written exam</td> <td data-bbox="794 656 1137 689">51.0%</td> <td data-bbox="1137 656 1477 689">50.0%</td> </tr> <tr> <td data-bbox="451 689 794 723">Project</td> <td data-bbox="794 689 1137 723">51.0%</td> <td data-bbox="1137 689 1477 723">50.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Written exam	51.0%	50.0%	Project	51.0%	50.0%
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Project	51.0%	50.0%										
Recommended reading	Basic literature	<p>Kozłowski A., Szreder M., <i>Informacje spoza próby w badaniach statystycznych</i>, Wydawnictwo UG, Gdańsk 2020.</p> <p>Szreder, M., Kozłowski, A., <i>Wnioskowanie na podstawie prób losowych i nielosowych</i>. Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2024.</p> <p>Bracha C., <i>Metoda reprezentacyjna w badaniu opinii publicznej i marketingu</i>, Efekt, Warszawa 1998.</p> <p>Lohr S.L., <i>Sampling. Design and analysis</i>, CRC Press, London, New York 2022.</p>										
	Supplementary literature	<p>Steczowski J., <i>Metoda reprezentacyjna w badaniach zjawisk ekonomiczno-społecznych</i>, Wydawnictwo Naukowe PWN, Warszawa-Kraków 1995.</p> <p>Zasępa R., <i>Metoda reprezentacyjna</i>, PWE, Warszawa 1972.</p>										
	eResources addresses											
Example issues/ example questions/ tasks being completed												
Work placement	Not applicable											

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