

**Subject card**

<b>Subject name and code</b>	Sampling Methods, PG_00177502						
<b>Field of study</b>	Informatics and Econometrics						
<b>Date of commencement of studies</b>	October 2026	<b>Academic year of realisation of subject</b>			2026/2027		
<b>Education level</b>	Master's studies	<b>Subject group</b>			Obligatory subject group in the field of study Optional subject group Subject group related to scientific research in the field of study		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	1	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	2	<b>ECTS credits</b>			4.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>			exam		
<b>Conducting unit</b>	Department of Statistics -> Faculty of Management -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr Arkadiusz Kozłowski				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	15.0	0.0	30.0	0.0	0.0	45
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	45		3.0		52.0	100
<b>Subject objectives</b>	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.						
<b>Learning outcomes</b>	<b>Course outcome</b>		<b>Subject outcome</b>			<b>Method of verification</b>	
	[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. Balanced sampling.</p> <p>Cluster and multistage sampling.</p> <p>Nonresponses and calibration approach.</p> <p>Simplified/approximate variance estimation.</p>											
Prerequisites and co-requisites	Knowledge of the basics of probability and mathematical statistics											
Assessment methods and criteria	<table border="1" data-bbox="451 707 1477 804"> <thead> <tr> <th data-bbox="451 707 794 734">Subject passing criteria</th> <th data-bbox="794 707 1139 734">Passing threshold</th> <th data-bbox="1139 707 1477 734">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="451 734 794 763">Oral exam</td> <td data-bbox="794 734 1139 763">51.0%</td> <td data-bbox="1139 734 1477 763">50.0%</td> </tr> <tr> <td data-bbox="451 763 794 804">Project</td> <td data-bbox="794 763 1139 804">51.0%</td> <td data-bbox="1139 763 1477 804">50.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Oral exam	51.0%	50.0%	Project	51.0%	50.0%
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Oral exam	51.0%	50.0%										
Project	51.0%	50.0%										
Recommended reading	Basic literature	<p>Kozłowski A., Szreder M., Informacje spoza próby w badaniach statystycznych, Wydawnictwo UG, Gdańsk 2020.</p> <p>Szreder, M., Kozłowski, A., Wnioskowanie na podstawie prób losowych i nielosowych. Wydawnictwo Uniwersytetu Gdańskiego, Gdańsk 2024.</p> <p>Bracha C., Metoda reprezentacyjna w badaniu opinii publicznej i marketingu, 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., Metoda reprezentacyjna w badaniach zjawisk ekonomiczno-społecznych, Wydawnictwo Naukowe PWN, Warszawa-Kraków 1995.</p> <p>Zasępa R., Metoda reprezentacyjna, PWE, Warszawa 1972.</p>										
	eResources addresses											
Example issues/ example questions/ tasks being completed												
Work placement	Not applicable											

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