University of Gdańsk

Subject card

Subject name and code	Statistics for sociologists, PG_00176640						
Field of study	Sociology						
Date of commencement of studies	October 2027		Academic year of realisation of subject		2028/2029		
Education level	Bachelor'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		Polish		
Semester of study	4		ECTS credits		2.0		
Learning profile	academic		Assessment form		exam		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr Maciej Brosz				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	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 main objective of the course is to equip students with the knowledge and skills necessary to conduct sociological research using basic statistical tools (measures), interpret the obtained results and formulate final (theoretical) conclusions based on the analysis and interpretation of statistical material.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[SOCL3_W06] The graduate knows and understands in an advanced way methods of quantitative and qualitative sociological research, including observation, interview, document analysis, and knows how to develop and report the results of researchThe graduate knows and understands in an advanced way basic methods of quantitative and qualitative sociological research, including observation, interview, document analysis, and knows how to develop and report the results of research	Conducts statistical inference embedded in the conceptual framework of the scientific inquiry being conducted.	[SW4] test/exam - oral or written
[SOCL3_U06] The graduate is able to use the acquired sociological knowledge to resolve dilemmas arising in professional work	The Student is able to make decisions based on the results of statistical analyses.	[SU4] test/exam - oral or written
[SOCL3_K02] The graduate is ready to recognise and accurately resolve dilemmas related to his/ her profession	The student is ready to use criteria to select statistical tests used in research.	[SK4] test/exam - oral or written
[SOCL3_K04] The graduate is ready to supplement and refine the acquired knowledge and skills	The student is ready to use statistical analysis tools in sociological research and increases the scope of applied research strategies.	[SK4] test/exam - oral or written

Subject contents

1. Main issues in development of statistics: data collection for state administration purposes and the emergence of the statistical method, probability theory and statistics, contemporary statistics.

2. Software used in statistical analyses. Introduction to programming in R.

3. Basic concepts of statistics: population, sample, statistical community, statistical unit, statistical feature, the concept of a variable, types of variable, types of measurement scales, discussion of the stages of sociological research using the statistical method.

4. Issues of selecting a sample for research.

5. Measures of central tendency: the essence and interpretation of results obtained in sociological research. Arithmetic mean, weighted mean, median, percentiles (quartiles), mode.

6. Measures of dispersion: the essence and interpretation of results obtained in sociological research. Range, area of variation of the middle 50% of the series values, interquartile deviation, mean deviation, standard deviation. Relationship to measures of central tendency.

7. Probability distributions. Normal distribution.

8. Introduction to point and interval estimation procedures.

9. Testing hypotheses (parametric tests).

10. Testing hypotheses (nonparametric tests).

11. Examining relationships between variables: correlation coefficients.

12. Regression analysis: linear, curvilinear, logistic.

13. Multiple regression analysis: path analysis introduction to structural equation analysis.

Prerequisites and co-requisites

Promotion to the third semester of studies.In order to pass the lecture, the student must first pass the classes.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Written exam	40.0%	100.0%

Recommended reading	Basic literature	Szymczak, W., 2018, Podstawy statystyki dla psychologów, Engram, Warszawa. Makać, W., Urbanek-Krzysztofiak D., 2020, Metody opisu statystycznego, Wydawnictwo UG. Bedyńska, S., Brzezicka, A., (red.), 2007, Statystyczny drogowskaz. Praktyczny poradnik analizy danych w naukach społecznych na przykładach z psychologii, Wydawnictwo SWPS Academica, Warszawa. Biecek, P., (2014), Przewodnik po pakiecie R, Oficyna wydawnicza GIS, Wrocław.
	Supplementary literature	Wieczorkowska, G., Kochański, P., Eljaszuk, M., 2004, Statystyka. Wprowadzenie do analizy danych sondażowych i eksperymentalnych, Scholar, Warszawa. Lissowski, G., Haman, J., Jasiński, M., 2011. Podstawy statystyki dla socjologów, tom 1-2-3, Scholar, Warszawa. Lissowski, G., Haman, J., Jasiński, M., 2008. Podstawy statystyki dla socjologów, Seria: Wykłady z socjologii, tom 6, Scholar, Warszawa. Blalock, H. M., 1975, Statystyka dla socjologów, PWN, Warszawa.
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

Document generated electronically. Does not require a seal or signature.