



Taras Shevchenko National
University of Kyiv

COURSE GUIDE

CC06 QUANTITATIVE SOCIAL DATA ANALYSIS



Faculty of Sociology

COURSE INFO

Title	Quantitative Social Data Analysis
Code	CC06
Field of study	054 Sociology
Degree level	master
Study program	Sociology (language of instruction - English)
Type	compulsory
Semester	2
ECTS credits	8.00
Language of instruction	English
Final control	exam
Instructor	Dr. Andrii Gorbachyk

SUMMARY

The course covers key traditional methods of analysis of quantitative empirical data used in everyday practice by sociologists - tabulation (construction and analysis of tables of one-dimensional and multidimensional distributions of attributes), calculation of averages and measures of variation, testing statistical hypotheses (significance of differences of percentages, means, etc.), correlation, regression, cluster, and factor analysis methods. Measurement in sociology, types of scales and correspondence between the types of scales and mathematical methods of analysis are also covered. Lectures are followed by lab classes with the use of statistical software. At the end of the course students submit individual analytical papers which contain computer-based analysis of datasets from real sociological studies.

PREVIOUS KNOWLEDGE

1. Students should be familiar with the basic concepts of probability theory and possess practical skills of independent work with a personal computer running MS Windows.

COMPETENCES

GC06	Ability to make informed decisions
SC04	Ability to collect and analyze empirical data using contemporary methods of sociological research
SC11	Ability to apply state-of-the-art methods of collection and analysis of sociological data in a justifiable way to solve practical issues
SC12	Ability to apply contemporary methods of data processing in sociological research and use software packages for data processing and visualization of findings



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COURSE LEARNING OUTCOMES			
1.1	Choose relevant methods of data analysis for each particular research task		
1.2	Know conditions and restrictions on the use of each method, including requirement to the data being analyzed		
2.1	Prepare empirical data in the computer format required by the particular method of analysis		
2.2	Use specialized computer programs (software) to analyze data from empirical sociological research		
2.3	Interpret findings of computer analysis and draw sound conclusions based on these findings		
2.4	Present the findings of empirical data analysis in reports, academic publications, speeches to professional audiences		
EVALUATION			
20 points	Assignments at lab classes		
20 points	Individual paper on data analysis		
20 points	Midterm test		
40 points	Final exam Admission to exam threshold: 36 points		
Grade explication	90-100	Excellent	
	75-89	Good	
	60-74	Satisfactory	
	0-59	Fail	
COURSE STRUCTURE			
CHAPTERS	WORKLOAD (in hours)		
	lectures	seminars	self-study
1. Measurement of social variables. Scale types. Analysis of one variable	2	4	10
2. Two-dimensional table of frequencies and percentages. Correlation analysis	2	4	20
3. Multiple linear regression equation.	4	8	30
4. Sample methods in sociological research	2	4	20

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5. Statistical inference. Interval evaluation. Testing of statistical hypotheses	2	4	20
6. Cluster analysis	2	4	20
7. Factor analysis	2	4	20
8. Logistic regression.	2	4	20
9. Presentation of data analysis findings	2	4	20

READINGS**Required**

1. Ott R.L., Longnecker M. An Introduction To Statistical Methods And Data Analysis (7th Edition).- Cengage Learning, 2016 .- 1174 p. -- p. 1-58, 232-365, 482-710
2. Cleff T. Applied Statistics And Multivariate Data Analysis For Business And Economics. - Springer, 2019 .- 474 p. -- p. 1-57, 71-109, 353-366, 407-441
3. Babbie E. The Practice of Social Research, 12th Ed.- Wadsworth, Cengage Learning, 2010.- 530 p. - p. 90-228? 421-505
4. Meyers L.S., Gamst G.C., Guarino A.J. Performing Data Analysis Using IBM SPSS. - Wiley, 2013 .- 720 p. -- p. 57-76, 157-210, 255-264, 331-352, 457-474, 621-642

Additional

1. Albers M.J. Introduction to Quantitative Data Analysis in the Behavioral and Social Sciences. - John Wiley & Sons, 2017.- 219 p. -- p. 1-48, 197-213
2. Cronk B.C. How to Use SPSS A Step-By-Step Guide to Analysis and Interpretation (10th ed.). - Routledge, 2018.- 165 p. -- p. 21-34, 50-77

Other sources

1. European Social Survey. Data and Documentation <https://www.europeansocialsurvey.org/data/>