Taras Shevchenko National University of Kyiv

COURSE GUIDE

EC1.01
SOCIAL NETWORKS ANALYSIS

Faculty of Sociology

COURSE INFO	
Title	Social Networks Analysis
Code	EC1.01
Field of study	054 Sociology
Degree level	master
Study program	Sociology (language of instruction - English)
Type	elective
Semester	3
ECTS credits	5.00
Language of instruction	English
Final control	exam
Instructor	Dr. Yuriy Savelyev

SUMMARY

Methods of analysis of social networks are necessary to identify and understand the structural relationships between different factors (individuals, organizations, countries, etc.) in a contemporary society. These methods have become especially important with the development of Internet communications and the global spread of social networks. The course aims to acquaint students with the possibilities and theoretical and methodological principles of methods of analysis of social networks and to form basic skills in conducting network analysis in practice using special software (Gephi, R, or UCINET).

PREVIOUS KNOWLEDGE

1. Know the basic methods of collecting and analyzing sociological data
2. Ability to work with computer
3. Fluency in English above the average level and experience working with scientific literature in English

COMPETENCES

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	Knowledge of the basic methods of analysis of social networks and their applications in the study of social interactions
1.2	Knowledge of specifics of planning research on the study of social networks and awareness of various uses of network analysis methods
2.1	Plan, select appropriate methods of data collection and analysis and conduct research on the study of social networks
2.2	Collect and process data for the analysis of social networks
2.3	Analyze social networks in the software environment R, Gephi or UCINET and adequately interpret network data

EVALUATION		
20 points	Practical assignments	
40 points	Two midterm tests	
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. Analysis of social networks in the study of social processes			
Theoretical and methodological principles of studying social networks	2	4	10
Basic characteristics and mathematical indicators of social networks	4	4	10
Measures of centrality in the analysis of social networks	2	6	10
2. Application of network analysis in sociological research			
Research design, data collection and processing in the analysis of social networks	2	4	10
Methods of analysis of social networks	2	6	10
Analysis of social networks in the software environment R, Gephi or UCINET	2	6	10

READINGS

Required

1. Borgatti S., Everett M., Johnson J. Analyzing Social Networks. London: SAGE, 2018.
2. Luke D. A Users Guide to Network Analysis in R. Springer, 2015.
3. Gephi Tutorials: Learn how to use Gephi. URL: https://gephi.org/users/

Additional

1. Granovetter The Strength of Weak Ties. *American journal of sociology*, 1973. Volume 78 Number 6
2. Knoke D., Yang, S. Social network analysis. London: SAGE, 2019.
3. Models and Methods in Social Network Analysis. Cambridge: Cambridge University Press, 2005.
4. Padgett, J. F., & Ansell, C. K. Robust Action and the Rise of the Medici, 1400-1434. *American journal of sociology*, 1993, *98*(6), 1259-1319.
5. Savelyev Y. Social network analysis: Learning package for students in specialty 054 Sociology, master education level. - K.: Taras Shevchenko National University of Kyiv, 2020. – 52 p. http://dx.doi.org/10.2139/ssrn.3595068
6. Scott J. Social network analysis. 4th edition. London: Sage, 2017.
7. UCINET 6 for Windows USER'S GUIDE. 2002.

Other sources

1. Gephi https://gephi.org
2. Pajek http://mrvar.fdv.uni-lj.si/pajek
3. R packages https://cran.r-project.org
4. Freeman L. 2004 The development of social network analysis. https://www.researchgate.net/publication/239228599_The_Development_of_Social_Network_Analysis
5. Hanneman R., Riddle M. Introduction to Social Network Methods https://www.researchgate.net/profile/Robert_Hanneman/publication/235737492_Introduction_to_Social_Network_Methods/links/0deec52261e1577e6c000000/Introduction-to-Social-Network-Methods.pdf
6. UCINET free trial version valid for 60 days http://www.analytictech.com/ucinet/trial.htm
7. Yuriy Savelyev. Teaching Materials for Students 2021. – Retrieved at: https://univ-kiev.academia.edu/YuriSavelyev/Teaching-Documents