GEOG3426 Social Networks and Geography

TIMETABLE ARRANGEMENT: Annual; 2nd Semester

CREDITS: 6

COURSE TEACHER(S): Dr. Frank VAN DER WOUDEN

ASSESSMENT:

EXAMINATION 50 %	COURSEWORK 50 %
• 2 hours	• Theoretical research project • Empirical research project

OBJECTIVES:
The objectives of this course are (1) to introduce key concepts of social network analysis; (2) to provide an introduction to a set of quantitative methods and measures in social network analysis commonly used in the field of geography and (3) present tools to empirically conduct social network analysis.

COURSE SYNOPSIS:
Social sciences are the study of relationships and these relationships can be represented via networks. This is also true for the socio-economic interactions studied in the geography discipline. This course focuses on the theories, applications and tools in social network analysis. It covers the basics of graph analysis, fundamental network models, diffusion processes of ideas, knowledge and information, and the contagion of diseases across space. In network analysis, theories and the quantitative methods are often entwined. This class will focus primarily on the substantive concepts of social network analysis but will also provide an introduction to the quantitative methods and measures commonly used in the field of geography. These methods are tools for students' future academic and professional careers. Connections with contemporary issues such as the geographical spread of the Corona-virus will be made.

LECTURE TOPICS:
• Introduction to Networks
• Why Networks Matter in Geography
• Ties and Tie Strength
• Context of Individuals and Dyads
• Micromotives
• Small World
• Decentralized Search
• Cascades and Matthew Effects
• Diffusion
• Epidemics
• Networks and Geography

RECOMMENDED READING LIST:
• Networks, Crowds, and Markets: Reasoning About a Highly Connected World" by David Easley and Jon Kleinberg, Cambridge University Press (2010).

	Course Learning Outcomes (CLOs) After completing this course, students would be able to:	Alignment with Programme Learning Outcomes (PLOs)*						Course Assessment Methods
		1	2	3	4	5	6	
1	conceptualize socio-economic and geographical problems from a network perspective		✔		✔			Theoretical research project, empirical research project & exam
2	demonstrate a basic understanding of concept of social network analysis in the field of geography		✔					Theoretical research project, empirical research project & exam
3	integrate social and spatial landscapes analytically		✔					Theoretical research project, empirical research project & exam
4	apply empirical techniques from social network analysis to real-world problems	✔	✔	✔	✔	✔	✔	Empirical research project
5	work with open-source software to analyze social networks	✔	✔	✔	✔	✔	✔	Empirical research project

*Geography Major Programme Learning Outcomes (PLOs)

In order to meet the demands and challenges in this dynamic and ever-changing world, the Department has designed a series of well-structured and contemporary courses to cater to the different interests of students. Its courses are designed to align with the University's educational aims which hope to nurture future generations not only with a critical and intellectual mindset, but also with a passion to contribute to society in general.

After completing the programme, Geography Major students should be able to:

PLO1 critically analyse the geographical aspects of the relationship between people and the natural environment;

PLO2 demonstrate and develop an understanding of how these relationships have changed with space and over time;

PLO3 identify, collect and utilize primary and secondary data to investigate and analyse the issues and problems facing people, places and society;

PLO4 integrate, evaluate and communicate information from a variety of geographical and other sources;

PLO5 participate in promoting social, economic and environmental sustainability at the local, regional and global scales; and

PLO6 effectively apply a range of transferable skills in academic, professional and social settings.