

COM5506: SOCIAL NETWORK ANALYSIS FOR COMMUNICATION

Effective Term

Semester B 2024/25

Part I Course Overview

Course Title

Social Network Analysis for Communication

Subject Code

COM - Media and Communication

Course Number

5506

Academic Unit

Media and Communication (COM)

College/School

College of Liberal Arts and Social Sciences (CH)

Course Duration

One Semester

Credit Units

3

Level

P5, P6 - Postgraduate Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details

Abstract

The course aims to help students develop “networking perspectives” that views entities of communication processes (e.g., communicators, audiences, media organizations, information messages, news events, regulatory agencies, etc.) as “network nodes” interconnected through direct or indirect, formal and informal, explicit or hidden ways. The course covers basic theories and research methods of social network analysis, with a variety of applications for communication purposes. Specific topics include human interactions over online friendship networks (e.g., Facebook, Google+, etc.), information diffusion through microblogging websites (e.g., Twitter, Weibo, etc.), cross-national flow of media content (news, entertainment, advertising, etc.), word of mouth and viral marketing, contagious models for health communication, and etc. Through individual exercises, group projects, class discussions, quiz, test, and other activities, students will learn how to design social network analysis studies, how to collect, integrate, analyse, and visualize social network data, and how to apply networking perspectives to solve real life issues in communication context.

This course will adopt a blended learning approach. For each class, students will need to watch a 2-hour lecture video first prior coming to the class. Then student then join a 1-hour interactive classroom session where class discussion, class exercise, quiz, and lab session, etc. will be performed.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	To describe and explain basic theoretical concepts and research methods of social and complex networks	30	x	x	
2	To collect, analyse, interpret, and visualize social network data for real life problems	25	x	x	x
3	To apply theoretical perspectives and methodological approaches in social, business, or engineering contexts	25	x	x	x
4	To present research findings and case studies in professional quality and style	20	x	x	x

A1: Attitude

Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability

Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments

Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Learning and Teaching Activities (LTAs)

LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lecture	Instructor teaching concepts and theories related to network analysis	1, 2, 3
2	Class discussion	Students participating in class discussion	1, 2, 3

3	Lab session	Students learning to use Python to analyse social network	1, 2, 3	
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Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Research Paper	1, 2, 3, 4	40	
2	In class participation	1, 2, 3, 4	10	
3	Quiz	1, 2, 3	20	
4	Final Test	1, 2, 3, 4	30	

Continuous Assessment (%)

100

Assessment Rubrics (AR)**Assessment Task**

1. Quiz (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Comprehensive understanding of theories and concepts related to social network analysis

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

2. Research project (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Originality, data quality, appropriate adopt of analytical tools, visual presentation

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

3. In class participation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Quantity and quality of participation

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

4. Final Test

Criterion

Comprehensive understanding of theories and concepts related to social network analysis

Excellent

(A+, A, A-) High

Good

(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

1. Quiz (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Comprehensive understanding of theories and concepts related to social network analysis

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

2. Research project (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Originality, data quality, appropriate adopt of analytical tools, visual presentation

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

3. In class participation (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Quantity and quality of participation

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Assessment Task

4. Final Test (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Comprehensive understanding of theories and concepts related to social network analysis

Excellent

A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not even reaching marginal levels

Additional Information for AR

Class assignments and Presentation (example as follows):

- Quiz and Test: focusing on key conceptual, empirical, and application issues of social network analysis based on readings, lectures, and other assignments.
- In-class exercises: collecting social network data from various online data sources, performing network analysis of the collected data, and visualizing the analysis results
- Research project: based on individual or group research project on an approved topic using appropriate methods(s), following the appropriate academic style and requirements, with attention paid to the quality of writing, including the spelling, syntax, and grammatical structure of the paper.
- Project presentation: Each student (group) is expected to present a research project and findings to the class.

Specific grading criteria for selected assessment tasks/activities are as follows (example as follows):

Research paper and presentation:

- Quality of the ideas – originality, significance, etc.
- Appropriateness, logical coherence and clarity of the arguments and hypotheses
- Appropriateness of research method and clear description
- Appropriateness of the analysis and the presentations of the results
- Thought-provoking discussions of the research findings and the significance of the study
- Format, style, writing and length of paper
- Presentational skills

Weighting of the different criteria and other details will be announced on the course website.

Part III Other Information

Keyword Syllabus

Network analysis, network visualization, Python programming

Reading List

Compulsory Readings

Title	
1	David Easley and John Kleinberg (2010). Networks, crowds, and markets: Reasoning about a highly connected world. Cambridge University Press.

2	Robert A. Hanneman and Mark Riddle (2005). Introduction to Social Network Methods. Riverside, CA: University of California, Riverside.
3	Maksim Tsvetovat and Alexander Kouznetsov (2011). Social network analysis for startups.

Additional Readings

	Title
1	Wes McKinney (2013). Python for data analysis. O'Reilly
2	Matthew Russell (2013). Mining the social web: Data mining Facebook, Twitter, LinkedIn, Google+, GitHub, and More (2nd ed.). O'Reilly.
3	Zweig, K. A. (2016). Network analysis literacy. Springer-Verlag GmbH Austria.