

# HANDBOOK

**BACHELOR OF INFORMATICS PROGRAM  
DEPARTMENT OF INFORMATICS  
FACULTY OF INTELLIGENT ELECTRICAL AND INFORMATICS TECHNOLOGY  
INSTITUT TEKNOLOGI SEPULUH NOPEMBER**

Module name	<b>Social Network Analysis</b>
Module level	Undergraduate
Code	IF184957
Courses (if applicable)	<b>Social Network Analysis</b>
Semester	8
Contact person	
Lecturer	
Language	Bahasa Indonesia and English
Relation to curriculum	1. Undergraduate degree program; optional; 8 <sup>th</sup> semester. 2. International undergraduate program; optional; 8 <sup>th</sup> semester.
Type of teaching, contact hours	1. Undergraduate degree program: lectures, < 60 students, 2. International undergraduate program: lectures, < 40 students
Workload	1. Lectures: 3 x 50 = 150 minutes (2 hours 30 minutes) per week. 2. Exercises and Assignments: 3 x 60 = 180 minutes (3 hours) per week. 3. Private study: 3 x 60 = 180 minutes (3 hours) per week.
Credit points	3 credit points (sks).
Requirements according to the examination	A student must have attended at least 80% of the lectures to sit in the exams.

regulations	
Mandatory prerequisites	Computational Intelligence
	After completing this module, a student is expected to:

Learning outcomes and their corresponding PLOs	<b>CO1</b> Students are able to explain various concepts, theories, and terms in data analysis techniques from social networking media	
	<b>CO2</b> Students are able to collect data from social networking sites	
	<b>CO3</b> Students are able to perform social network analysis using standard data sets with assistive tools	
	<b>CO4</b> Students are able to design and implement social network analysis on a real problem independently or in teamwork	
Content		
	<p>Knowledge:</p> <ul style="list-style-type: none"> <li>• Mastering principles and methods to solve computation problems by using calculus, matrices, statistics, approximation, linear optimization, modelling and simulation</li> <li>• Mastering concepts and principles of collecting, processing and storing the information in various formats</li> </ul>	

	<p>Specific Skill:</p> <ul style="list-style-type: none"> <li>• Able to solve computation problems, and mathematical modelling through exact, stochastic, probabilistic, and numeric approaches effectively and efficiently</li> <li>• Capable of collecting, digitalizing, representing and transforming data into new useful information by using data modelling and storage in effective and efficient manners</li> </ul>
Study and examination requirements and forms of examination	Mid-terms examination and Final examination.
Media employed	LCD, whiteboard, websites, books (as references), etc.
Assessments and Evaluation	
Reading List	<p>Reza Zafarani, Mohammad Ali Abbasi, Huan Liu, "Social Media Mining: An Introduction", Cambridge University Press, 2014</p> <p>Matthew A. Russell, "Mining the Social Web 2nded.", O'Reilly, 2014</p> <p>Maksim Tsvetovat, Alexander Kouznetsov, "Social Network Analysisfor Startups", O'Reilly, 2011</p>