HANDBOOK

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

Module name	**Information Retrieval System**
Module level	Undergraduate
Code	IF184955
Courses (if applicable)	**Information Retrieval System**
Semester	7
Contact person	
Lecturer	
Language	Bahasa Indonesia dan English
Relation to curriculum	1. Undergraduate degree program; optional; 7th semester. 2. International undergraduate program; optional; 7th semester.
Type of teaching, contact hours	1. Undergraduate degree program: lectures, < 60 students, 2. International undergraduate program: lectures, < 40 students
Workload	1. Lectures: 3 sks 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	**CO1** The students are able to explain various concepts, theories, terms in various models of information retrieval systems and their applications	
	CO2 The students implement problem solving techniques such as indexing, searching, query processing in the need of information retrieval.	
Content	Knowledge: • Mastering the concepts and principles of intelligent systems including representation and reasoning techniques, search techniques, agents, data mining, and machine learning, as well as intelligent application development in various fields, and mastering the concepts and principles of computational science including information management, multimedia data processing , and numerical analysis • Mastering the principles and techniques of solving problems using: calculus, matrices, statistics, approximation, liner optimization, modelling and simulation Specific Skill: • Able to design and build applications by applying the principles of intelligent systems and computational science to produce smart application products in various fields • Able to solve computational problems and mathematical modeling through exact, stochastic, probabilistic and numerical approaches effectively and efficiently	
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	• Ricardo Baeza-Yates, Berthier Ribeiro-Neto, "Modern Information Retrieval: The Concepts and Technology behind Search 2nd Ed", Addison-Wesley, New Jersey, 2011 • Christopher D. Manning, Prabhakar Raghavan, Hinrich Schütze, "Introduction to Information Retrieval", Cambridge University Press, 2008