Information Retrieval

Module name	Information Retrieval	
Module level	Undergraduate	
Code	IF221222	
Courses (if applicable)	Information Retrieval	
Semester	5/6	
Lecturer	Budi Nugroho, S.Kom, M.Kom (PIC) Retno Mumpuni, S.Kom, M.Sc	
Language	Bahasa Indonesia and English	
Relation to curriculum	Elective; 5th/6th semester	
Type of teaching, contact hours	Lectures, < 60 students,	
Teaching Methods	discussion group, simulation, case study, project-based learning, problem-based learning	
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 regulations	A student must have attended at least 80% of the lectures to sit in the exams.	
Mandatory prerequisites	Software Engineering	
Courses description	This course encompasses the procedures and prerequisites necessary for conducting an analysis of Information Retrieval. It also explores the methodologies that can be implemented during this process of Information Retrieval.	
Learning outcomes and their corresponding PLOs	After completing this module, a student is expected to:	
	CO1 Students have the ability to discern areas for testing information systems in accordance with organizational standards. (C2)	PLO9,PLO10
	CO2 Students are able to demonstrate proficiency in selecting an appropriate approach to assess the quality standards of a system. (C2)	PLO9,PLO10
	CO3 Students have the ability to effectively communicate regarding the representation of users engaged in the testing of information systems. (C2, C3)	PLO9,PLO10
	CO4 Students are proficient in identifying stakeholders and delineating their roles in the assessment of system quality standards. (C2, C3)	PLO9,PLO10
Content	Principles of conducting testing for information systems/applications, procedures for organizing software/information system development, utilization of white-box testing and black-box testing methodologies, usability testing techniques, object-oriented testing models (OOA/OOD), tools and resources to support the testing process	
Media employed	LCD, whiteboard, websites, books (as references), online meeting, etc.	
Assessments and Evaluation	One written Midterm assessment (60 minutes) and one final oral exam (30 minutes), two short computer-based quizzes, takehome written assignments	

Study and examination requirements and forms of examination	The final grade in the module is composed of: • Two short computer-based quizzes: 15% x 2 = 30% • Take-home written assignments : 15% • Written Midterm assessment: 25% • Final oral exam: 30% Students must have a final grade of 55.6% or higher to pass.
Reading List	• R. Sabry, Cloud Robotics: Harnessing Networked Intelligence for the Next Era of Autonomous Machines. Cham, Switzerland: Springer, 2024. • M. Winteringham, Software Testing with Generative AI. Greenwich, CT, USA: Manning, Dec. 2024. • P. Leloudas, Software Testing Strategies: Accelerating Software Delivery with Continuous Testing and Integration. New Delhi, India: BPB Publications, 2025. ISBN-13: 978-9365891577. Available: https://portal.igpublish.com/iglibrary/obj/BPB0000742?searchid=1755674594718 98urGcnkfyOPUzA~agfzl