Case-Based Reasoning

Module name	Case-Based Reasoning	
Module level	Undergraduate	
Code	IF221219	
Courses (if applicable)	Case-Based Reasoning	
Semester	5/6	
Lecturer	Budi Nugroho, S.Kom, M.Kom (PIC) Made Hanindia Prami S, S.Kom, M.Cs	
Language	Bahasa Indonesia and English	
Relation to curriculum	Elective; 5th/6th semester	
Type of teaching, contact hours	Lectures, < 60 students	
Teaching Methods	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	Artificial Intelligence	
Courses description	This course places a strong emphasis on maintaining balance between theory and practical implementation in the creation of intelligent systems through a case-based approach.	
Learning outcomes and their corresponding PLOs	After completing this module, a student is expected to:	
	CO1 Students possess the ability to comprehend and expound upon the concept of the case-based reasoning approach within an application. (C2, A2)	PLO9,PLO10
	CO2 Students possess the capability to elucidate and fully grasp the constituent components of Case-Based Reasoning (CBR). (C2, A2)	PLO9,PLO10
	CO3 Students possess the ability to comprehend and put into practice multiple algorithms suitable for the construction of CBR applications. (C3, A4, P4)	PLO9,PLO10
	CO4 Students possess the competence to create a CBR-based application. (C3, A4, P4)	PLO9,PLO10
Content	Theoretical Framework and Concepts of Case-Based Reasoning (CBR); Constituent Components of CBR; A Range of Algorithms Applicable to Constructing a CBR System; CBR Implementation Aligned with Case Studies	
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	The final grade in the module is composed of: • Two short computer-based quizzes: 15% x 2 = 30%	

requirements and forms of examination	• 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	● S. Massie and S. Chakraborti, Eds.**,** Case-Based Reasoning Research and Development, ICCBR 2023, Aberdeen, UK*,* 2023 ● J. A. Recio-Garcia, M. Orozco-del-Castillo, and D. Bridge, Eds.**,** Case-Based Reasoning Research and Development, Merida, Mexico, 2024 ● M. T. Keane and N. Wiratunga (Eds.), Case-Based Reasoning Research and Development, Nancy, France, 2022. [Online]. Available: https://doi.org/10.1007/978-3-031-14923-8