System Analysis and Design

Module name	System Analysis and Design	
Module level	Undergraduate	
Code	IF221122	
Courses (if applicable)	System Analysis and Design	
Semester	4	
Lecturer	Yisti Vita Via, S.ST, M.Kom (PIC) Afina Lina Nurlaili, S.Kom, M.Kom Budi Nugroho, S.Kom, M.Kom Eka Prakarsa Mandyartha, ST, M.Kom	
Language	Bahasa Indonesia and English	
Relation to curriculum	Undergraduate degree program; compulsory; 4th semester	
Type of teaching, contact hours	Lectures, < 60 students,	
Teaching Methods	Simulation, cooperative learning, 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	Advanced Database	
Courses description	System Analysis and Design is a course that explores the knowledge of structured design paradigms, context diagrams, data flow diagrams, ER diagrams, system documentation, Object-Oriented Design paradigms, object-oriented software development concepts, object methodologies, notations, and object-oriented diagrams. Implementation of object-oriented diagrams in object-oriented programming languages and/or visual programming.	
Learning outcomes and their corresponding PLOs	After completing this module, a student is expected to:	
	CO1 Students are capable of designing and implementing software engineering. (C2, A2)	PLO4, PLO7, PLO9
	CO2 Students are proficient in creating software analysis and design based on user requirements. (C3, P4)	PLO4, PLO7, PLO9
Content	Concept of information system design; Information system development planning; Information system design with a structured approach; Information system design with an object-oriented approach	
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	● A. Dennis, B. Wixom, and R. Roth, Systems Analysis and Design, 5th ed. Hoboken, NJ, USA: Wiley, 2012. ● V. Rajaraman, Analysis and Design of Information Systems, 3rd ed. New Delhi, India: Prentice-Hall of India Pvt. Ltd., 2011. ● A. M. Langer, Analysis and Design of Information Systems, 3rd ed. London, U.K.: Springer, 2008. ● K. Seguin, Foundation of Programming: Building Better Software. CodeBetter.com, 2007. [Online]. Available: http://codebetter.com/karlseguin/2008/06/25/foundation-of-programming-ebook/ ● W. Boggs and M. Boggs, UML with Rational Rose 2003. San Francisco, CA, USA: Sybex, 2002.