MODULE HANDBOOK
Master Program in Computer Science
Department of Computer Science and Electronics
Faculty of Mathematics and Natural Sciences
Universitas Gadjah Mada

Decision Support System

Module name	**Decision Support System**	
Module level	Master	
Code	MII5858	
Courses (if applicable)	**Sistem Pendukung Keputusa**	
Semester	Even(genap)	
Contact person	Prof. Sri Hartati, M.Sc., Ph.D	
Lecturer	Prof. Sri Hartati, M.Sc., Ph.D Retantyo Wardoyo	
Language	Indonesia	
Relation to curriculum	Master Program, compulsary, first semester.	
Type of teaching, contact hours	Magister degree program: lectures, < 30 students,	
Workload	1. Lecturing 3 x 50 = 150 minutes (2,5 hours) per week.	
	2. Exercises and Assignment: 3 x 60 = 180 minutes (3 hours) per week.	
	3. Private study: 3 x 60 = 180 180 minutes (3 hours) per week.	
Credit points	3 credit points (sks).	
Requirements according to the examination regulations	A student must have at least 75% of lecture to sit the exams.	
Learning outcomes and their corresponding PLOs	After completing this module, a student is expected to:	

CO	Description	Supported PLO
CO-1	Students are able to distinguish DSS and other computer systems, understand the concept of decision making, recognize the different types of Decision Support Systems.	PLO-2
CO-2	Students are able to understand decision support approaches using systems, able to understand the phases of decision making. Students are able to understand the factors that influence decision making, understand that DSS supports practical decision making.	PLO-2, PLO-3
CO-3	Students are able to understand DSS configuration, understand DSS characteristics and capabilities, understand the structure of DSS components.	PLO-2, PLO-4
CO-4	Students are able to understand the concept of MSS modeling, understand the concept of the Management Support System (MSS) model, understand the differences in model classes. Students are able to understand alternative	PLO-3

		decision-making structures. Students are able to understand the basic concepts of MSS modeling.	
	CO-5	Students are able to understand decision-making modeling. Students are able to understand the Simple Additive Weighting (SAW) modeling method and able to appropriately apply the SAW methods for real case/data	PLO-3,PLO-5
	CO-6	Students are able to understand decision-making modeling. Students are able to understand the Weighted Product method and able to appropriately apply the method for real case/data	PLO-3,PLO-5
	CO-7	Students are able to understand decision-making modeling. Students are able to understand Profile Mathching decision-making method to appropriately apply the method for real case/data	PLO-3, PLO-5
	CO-8	Students are able to understand decision-making modeling. Students are able to understand the method of decision making Technique for Order Preference by Similarity to Ideal Solution (TOPSIS) and to appropriately apply the method for real case/data	PLO-3, PLO-5
	CO-9	Students are able to understand decision-making modeling. Students are able to understand the method of making Analytic Hierarchy Process (AHP) decisions. Students are able to understand group decision making method and to appropriately apply the method for real case/data	PLO-3, PLO-5
	CO-10	Students are able to explore and understand Research Trend Decision Support Systems. Students are able to distinguish DSS and other computer systems, understand the concept of decision making, recognize the different types of Decision Support Systems.	PLO-7 PLO-2
	CO-11	Students are able to understand decision support approaches with the system, able to understand the phases of decision making. Students are able to understand the factors that influence decision making, understand that DSS supports practical decision making.	PLO-2, PLO-3
Recommended prerequisites	-		
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Content	This course introduces students to several key concepts and theories that have emerged in the field of knowledge known as ""decision support systems"" or ""Business Intelligence"". Decision Support System (DSS) is an IT class specifically designed to assist decision making in a data-rich but information-poor environment. Thus, DSS is an IT class which involves integration between systems, methods / models and applications. In this course, students are taught to develop a decision-making model to deal with various decision problems, and implement it into DSS. By gaining knowledge about these things, students are expected to experience DSS building, even on a limited scale.		

Study and ujianination requirements and forms of ujianination	Mid-term exam and final exam		
Media employed	LCD, papan tulis, situs web, buku (sebagai referensi), dll.		
Assessments and Evaluation	CO	Method	Percentage
	CO-1	Midterm exam problem no. 1	5%
	CO-2	Assignment no.1	5%
	CO-3	Midterm exam problem no. 2	10%
	CO-4	Assignment no.2	5%
	CO-5	Midterm exam problem no. 3	10%
	CO-6	Assignment no 3	5%
	CO-7	Midterm exam problem no.3	10%
	CO-8, CO-9	Final exam problem no. 1	10%
	CO-7, CO-8	Final exam problem no. 2	10%
	CO-5, CO-7	Final exam problem no. 3	5%
	CO-10	Final exam problem no. 4	5%
	CO-8	Assignment no. 4	5%
	CO-9	Assignment no. 5	5%
	CO-11	Assignment s no.6	10%
Reading List	1	Turban, E., 2010, "Decision Support and Intelligent Systems", Prentice Hall.	
	2	Gray, P., 1994, "Decision Support and Executive Information Systems", Prentice Hall.	