

**UNDERGRADUATE PROGRAM IN COMPUTER SCIENCE
DEPARTMENT OF COMPUTER SCIENCE AND ELECTRONICS
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
UNIVERSITAS GADJAH MADA**

Module name	Decision Support System
Module level	Undergraduate
Code	MII-4415
Courses (if applicable)	Decision Support System
Semester	Even
Contact person	Aina Musdholifah, S.Kom., M.Kom., Ph.D.
Lecturer	Drs. Retantyo Wardoyo, M.Sc., Ph.D. Aina Musdholifah, S.Kom., M.Kom., Ph.D.
Language	English
Relation to curriculum	International undergraduate program, elective, 6th semester.
Type of teaching, contact hours	International undergraduate program: lectures, < 10 student, Thursday, 11.30-14.00.
Workload	1. Lectures: 3 x 50 = 150 minutes (2.5 hours) 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	-

Recommended prerequisites	-	
Learning outcomes and their corresponding PLOs	<p>After completing this module, a student is expected to:</p> <p>CO1: able for identifying real world problems that need decision solution</p> <p>CO2: able for identifying the characteristics of DSS</p> <p>CO3: able for identifying the components of DSS</p> <p>CO4: able for applying decision models and their applications</p> <p>CO5: able for applying group decision techniques</p> <p>CO6: able for applying DSS software development techniques</p>	<p>PLO3</p> <p>PLO3</p> <p>PLO3</p> <p>PLO4</p> <p>PLO4</p> <p>PLO5</p>
Content	<p>This course provides a knowledge basis for developing a computer based system that can help managers in determining priorities from some alternative decision. The main content of this course is providing some knowledge about decision models applied in a DSS. It is expected that students will be able to use the models in developing DSS, and also developing models by combining the models. Main discussions in this course are: from Data Processing Systems to Decision Support Systems, Decision Managements,</p>	
	<p>Decision Support Systems components, database in DSS, decision models (SAW, TOPSIS, AHP, Profile Matching), user and machine aspects, Group DSS and group decision models, DSS software developments.</p>	

Study and examination requirements and forms of examination	Mid-terms examination and Final examination.
Media employed	LCD, blackboard, websites, and ACL tools.
Assessments and Evaluation	<p>CO1: Assignment 1 (5%) and problem 1 in midterm (7%).</p> <p>CO2: Assignment 2 (5%), problem 2 and 3 in midterm (14%).</p> <p>CO3: Assignment 3 (5%), problem 4 in midterm (7%), problem 1 and 2 in final term (16%).</p> <p>CO4: Assignment 4 (5%) and problem 3 in final term (8%).</p> <p>CO5: Case Study (5%) and Problem 4 in final term (8%).</p> <p>CO6: Final project (15%)</p>
Reading List	<p>Decision Support and Executive Information Systems (Gray, P., Prentice Hall, 1994)</p> <p>Decision Support and Intelligent Systems (Turban, E., Prentice Hall, 2010).</p>