



UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Department of Computer Science and Electronics

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Bachelor in Computer Science

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MODULE HANDBOOK

Module name	Database
Module level	Undergraduate
Code	MII-2501
Courses (if applicable)	NA
Semester	Fall (Odd)
Contact person	Dr. Sigit Priyanta, S.Si., M.Kom.
Lecturer	Dr. Sigit Priyanta, S.Si., M.Kom.
Language	Bahasa Indonesia & English
Relation to curriculum	1. Undergraduate degree program, compulsory, 2nd semester. 2. International undergraduate program, compulsory, 2nd semester.
Type of teaching, contact hours	1. Undergraduate degree program: lectures, < 60 students, 2. International undergraduate program: lectures, < 30 students.
Workload	1. Lectures: 3 x 50 = 150 minutes per week. 2. Exercises and Assignments: 2 x 50 = 100 minutes per week. 3. Private study: 1 x 50 = 50 minutes per week.
Credit points	3 credit points (sks).
Requirements according to the Examination regulations	A student must have attended at least 75% of the lectures to sit in the exams.
Recommended prerequisites	
Learning outcomes (course outcomes) and their corresponding PLOs	After completing this module, a student is expected to: CO1. Understand and be able to explain basic concept of database, big data, data analytics and data mining CO2. Understand and be able to explain basic concept of data model CO3. Understand and apply SQL/PLSQL CO4. Understand and be able to explain basic concept of database design CO5. Understand and be able to explain basic concept of transaction and data analytics CO6. Be able to communicate, coordinate and present database design process and result

	<table border="1"> <thead> <tr> <th>PLO</th> <th>CO1</th> <th>CO2</th> <th>CO3</th> <th>CO4</th> <th>CO5</th> </tr> </thead> <tbody> <tr> <td>Program Learning Outcome (PLO)</td> <td>PLO1</td> <td>√</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>PLO2</td> <td></td> <td>√</td> <td></td> <td></td> </tr> <tr> <td></td> <td>PLO3</td> <td></td> <td></td> <td>√</td> <td></td> </tr> <tr> <td></td> <td>PLO4</td> <td></td> <td></td> <td></td> <td>√</td> </tr> <tr> <td></td> <td>PLO5</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	PLO	CO1	CO2	CO3	CO4	CO5	Program Learning Outcome (PLO)	PLO1	√					PLO2		√				PLO3			√			PLO4				√		PLO5																								
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Contents	<ol style="list-style-type: none"> 1. Introduction to Database 2. Data Model 3. SQL 4. Database Design 5. Transaction 6. Data warehousing and data mining 7. NoSQL 																																																								
Study and examination requirements and forms of examination	<p>The evaluation is done in 3 forms, namely:</p> <ol style="list-style-type: none"> 1. Exam: mid exam and final exam. 2. Quiz and individual assignment. 3. Group assignments: before and after mid exam (including one final project). 																																																								
Media employed	e-learning Platform (ELOK), LCD, blackboard, website, Youtube video																																																								
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Reading List	<ol style="list-style-type: none"> 1. Silberschatz, A., Korth, H.F. and Sudarshan, Database System Concepts, 6th Edition, McGraw-Hill, 2010. 2. Ramakrishnan, R. and Gehrke, J., Database Management Systems, 3rd Edition, McGraw-Hill, 2003 																																																								

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