UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF MATHEMATICS EDUCATION
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Bachelor of Science in Mathematics **MODULE HANDBOOK**

Module name:	Information system and databases
Module level,if applicable:	Undergraduate
Code:	MAT6321
Sub-heading,if applicable:	-
Classes,if applicable:	-
Semester:	4th
Module coordinator:	Kuswari Hernawati, M.Kom
Lecturer(s):	1. Kuswari Hernawati, M,.Kom 2. Dr. Sri Andayani, M. Kom, 3. Nurhadi Waryanto, M.Eng
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format / class hoursperweekduring the semester:	150 minutes lectures and 180 minutes structured activities per week.
Workload:	Total workload is 136 hours per semester which consists of 150 minutes lectures, 180 minutes structured activities, and 180 minutes self-study per week for 16 weeks.
Creditpoints:	3
Prerequisites course(s):	Algorithm and Programming (MAT6310)
Course Outcomes	After taking this course the students have ability to: CO1. Respecting differences of opinion and different ways of solving database problems in information systems. CO2. Using a systematic and innovative logic of thinking and

	showing an attitude of independence in carrying out individual tasks and group assignments to produce works in the form of information systems compiled based on needs analysis in the field CO3. Explaining database concepts, relational data models, database formation techniques and normalization, use query language (sql) for searching, sorting, filtering, deleting and updating data and the basics of information system development, as a basis for further development at the level postgraduate. CO4.Able to compile algorithms with correct and efficient logic to build information systems.. CO5.Take steps in developing information systems in accordance with the algorithms prepared, based on analysis of needs, information and data in the field. CO6 Able to choose and utilize the development of ICT both software and hardware that are suitable for developing information systems
Content:	This course discusses understanding and mastery of database concepts, relational data models, database formation techniques and normalization, the use of query languages (sql) for searching, sorting, filtering, deleting and updating data and creating database application programs in developing data-based processing systems computers and the use of databases in information systems
Study/exam achievements:	CO1: Attitude assessment is carried out at each meeting by observation and / or self-assessment techniques using the assumption that basically every student has a good attitude. The student is given a value of very good or not good attitudeif they show it significantlycompared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of therequirements to pass the course. Students will pass from this course if at least have a good attitude.

<table>
<tr><td></td><td>The final mark will be weight as follow:

<table>
<tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr>
<tr><td>1</td><td>CO2, CO3, CO4 and CO5</td><td>a. Individual Assignment
b. Group Assignment
c. Quiz
d. Mid
e. Final Exam</td><td>Presentation / written test</td><td>10%

20%
20%
20%
30%</td></tr>
<tr><td colspan="3"></td><td>Total</td><td>100%</td></tr>
</table></td></tr>
<tr><td>Forms of media:</td><td>Board, LCD Projector, Laptop/Computer</td></tr>
<tr><td>Literature:</td><td>1. Stephens,Rod. Beginning Database Design Solutions. 2009. Indianapolis : Wiley Publishing, Inc.
2. Connolly, Thomas M & Begg, Carolyn E. Database Systems: A Practical Approach to Design, Implementation, and Management. 2014. England:Pearson Education Limited
3. Stair, Ralph M & Reynolds, George W. Fundamentals of Information Systems Eighth Edition. 2016. Course Technology, Cengage Learning
4. Kuswari Hernawati. 2015. Sistem Informasi dan Basis Data. Hand Book.</td></tr>
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PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10
CO1		✓								
CO2			✓							
CO3					✓					
CO4								✓		
CO5									✓	
CO6										✓