

# HANDBOOK

**BACHELOR OF INFORMATICS PROGRAM  
DEPARTMENT OF INFORMATICS  
FACULTY OF INTELLIGENT ELECTRICAL AND INFORMATICS TECHNOLOGY  
INSTITUT TEKNOLOGI SEPULUH NOPEMBER**

Module name	<b>Database System</b>
Module level	Undergraduate
Code	IW184301
Courses (if applicable)	<b>Database System</b>
Semester	3
Contact person	
Lecturer	
Language	Bahasa Indonesia and English
Relation to curriculum	<ol style="list-style-type: none"> <li>1. Undergraduate degree program; mandatory; 3<sup>rd</sup>, 5<sup>th</sup>, or 7<sup>th</sup> semester.</li> <li>2. International undergraduate program; mandatory; 3<sup>rd</sup>, 5<sup>th</sup>, or 7<sup>th</sup> semester.</li> </ol>
Type of teaching, contact hours	<ol style="list-style-type: none"> <li>1. Undergraduate degree program: lectures, &lt; 60 students,</li> <li>2. International undergraduate program: lectures, &lt; 40 students</li> </ol>
Workload	<ol style="list-style-type: none"> <li>1. Lectures: 4 x 50 = 200 minutes (3 hours 20 minutes) per week.</li> <li>2. Exercises and Assignments: 4 x 60 = 240 minutes (4 hours) per week.</li> <li>3. Private study: 4 x 60 = 240 minutes (4 hours) per week.</li> </ol>
Credit points	4 credit points (sks).
Requirements according to the examination	A student must have attended at least 80% of the lectures to sit in the exams.

regulations	
Mandatory prerequisites	Data Structure
Learning outcomes and their corresponding PLOs	After completing this module, a student is expected to:
	<b>CO1</b> Students are able to model data and information in the form of concept diagrams and physical diagrams and apply them to data assistants in a DBMS, both individually and in teamwork.

	<p><b>CO2</b> Students are able to apply the concepts of relational algebra, DDL, and DML to manage data and information in databases</p>	
	<p><b>CO3</b> Students are able to make database applications to manipulate data in databases</p>	
Content	<p>Knowledge: Mastering the concepts and principles of capturing, processing and storing information in various forms;</p> <p>Specific Skill: Able to collect, digitize, and process data into new useful information using effective and efficient data storage and modelling;</p>	
Study and examination requirements and forms of examination	Mid-terms examination and Final examination.	
Media employed	LCD, whiteboard, websites, books (as references), etc.	
Assessments and Evaluation		
Reading List	<p>Ramakrishnan, Raghu, Gehrke, Johannes. 2003. Database Management Systems, Third Edition. New York: The McGraw-Hill Companies, Inc.</p> <p>Howe, David; Data analysis for Database Design, third Edition, Butterworth-Heineman, 2001</p>	