HANDBOOK

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

Module name	**Cloud Computing**
Module level	Undergraduate
Code	IF184942
Courses (if applicable)	**Cloud Computing**
Semester	7
Contact person	-
Lecturer	Dr. Eng. Royyana Muslim I, S.Kom, M.Kom Bagus Jati Santoso, S.Kom., Ph.D.
Language	Bahasa Indonesia and English
Relation to curriculum	1. Undergraduate degree program; optional; 7th semester. 2. International undergraduate program; optional; 7th semester.
Type of teaching, contact hours	1. Undergraduate degree program: lectures, < 60 students, 2. International undergraduate program: lectures, < 40 students
Workload	1. Lectures: 3 x 50 = 150 minutes (2 hours 30 minutes) 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	A student must have attended at least 80% of the lectures to sit in the exams.

regulations		
Mandatory prerequisites	-	
	After completing this module, a student is expected to:	

<table>
<tr><td rowspan="8">Learning outcomes and their corresponding PLOs</td><td>CO1 Students can explain and understand the characteristics of cloud computing.</td><td></td></tr>
<tr><td>CO2 Students can explain and apply the concept of multitenancy in cloud computing.</td><td></td></tr>
<tr><td>CO3 Students can explain and apply delivery models in cloud computing.</td><td></td></tr>
<tr><td>CO4 Students can apply cloud computing technology on a small scale.</td><td></td></tr>
<tr><td>CO5 Students are able to explain the supporting aspects of cloud computing technology as well as security mechanisms.</td><td></td></tr>
<tr><td>CO6 Students are able to explain cloud computing architecture.</td><td></td></tr>
<tr><td></td><td></td></tr>
<tr><td>Content</td><td colspan="2">Knowledge:
Mastering the concepts and principles of architecture, systems and the basics of computer networks based on logic systems.
Master the theoretical concepts and principles of network-based computing and the latest technologies related to it, in the fields of distributed computing and mobile computing, multimedia computing, high-performance computing and information and network security.
Specific Skill:
Able to apply computer architecture, operating system working principles to design, implement and manage network systems that have high performance, are safe, and efficient.
Able to apply network-based computing concepts, parallel computing, distributed computing to analyze and design computational problem-solving algorithms in various fields.</td></tr>
<tr><td>Study and examination requirements and forms of examination</td><td colspan="2">Mid-terms examination and Final examination.</td></tr>
<tr><td>Media employed</td><td colspan="2">LCD, whiteboard, websites, books (as references), etc.</td></tr>
<tr><td>Assessments and Evaluation</td><td colspan="2"></td></tr>
</table>

Reading List	Thomas Erl et al, “Cloud Computing, Concepts, Technology. And Architecture”. Prentice Hall. Hill et al, “Guide to Cloud Computing, Principles and Practice”. Springer.Jeniq-Neng Hwang, “Multimedia Networking From Theory to Practice”, Cambridge, 2013. ISBN 9780521882040. Ze-Nian Li and Mark. S. Drew, “Fundamentals of Multimedia”, Prentice-Hall, 2003. ISBN 0130618721. W.C. Hardy,”QoS Measurement and Evaluation of Telecommunications Quality of Service”, Wiley, 2001. ISBN 0470845910.