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MODULE HANDBOOK

Module name	**Computer Network**
Module level, if applicable	Undergraduate
Code, if applicable	MII-2601
Courses, if applicable	NA
Semester(s) in which the module is taught	Fall (Odd)
Person responsible for the module	Lukman Heryawan, PhD
Lecturer(s)	Lukman Heryawan, PhD
Language	Bahasa Indonesia& English
Relation to curriculum	1. Undergraduate degree program, compulsory, 6th semester. 2. International undergraduate program, compulsory, 6th semester.
Teaching methods	1. Undergraduate degree program: lectures, < 60 students, 2. International undergraduate program: lectures, < 30 students.
Workload (incl. contact hours, self-study hours)	1. Lectures: 2 x 50 = 100 minutes per week. 2. Exercises and Assignments: 1 x 50 = 50 minutes per week. 3. Private study: 1 x 50 = 50 minutes per week.
Credit points	2 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.
Required and recommended prerequisites for joining the module	Discrete mathematics
Learning outcomes and their corresponding PLOs	After completing this module, a student is expected to: CO1. Able to explain the basic concepts of computer network protocol, computer network architecture, network management and security CO2. Able to explain and identify the concept of data communication, asynchronous and synchronous networks, wireless and sensor networks CO3. Able to explain network management in scale of LAN, WAN, and MAN CO4. Able to explain concept and type of data traffic in the context of switching, routing, and other routing algorithms CO5. Able to explain and present OSI model reference, TCP/IP network protocol and its application

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<tr><th colspan="2">PLO</th><th>CO1</th><th>CO2</th><th>CO3</th><th>CO4</th><th>CO5</th></tr>
<tr><td rowspan="5">Program Learning Outcome (PLO)</td><td>PLO1</td><td>√</td><td></td><td></td><td></td><td></td></tr>
<tr><td>PLO2</td><td></td><td>√</td><td></td><td></td><td></td></tr>
<tr><td>PLO3</td><td></td><td></td><td>√</td><td></td><td></td></tr>
<tr><td>PLO4</td><td></td><td></td><td></td><td>√</td><td></td></tr>
<tr><td>PLO5</td><td></td><td></td><td></td><td></td><td>√</td></tr>
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<tr><td>Content</td><td>1. Concept and understanding, computer network technology and method
2. Architecture and Components of computer network
3. Management of computer network
4. Computer network supporting technology and its application
5. Computer network security</td></tr>
<tr><td>Study and examination requirements and examination forms</td><td>The evaluation is done in 2 forms, namely:
1. Trial, either midterm or semester test,
2. Two tasks, including individual,
3. Two group assignments to be completed within a certain timeframe, and

Assessment is done using benchmark assessment, with the aim of measuring the level of student understanding related to the target and class rank.</td></tr>
<tr><td>Media employed</td><td>e-learning Platform (ELOK), LCD, blackboard, and websites.</td></tr>
<tr><td>Assessments and evaluation</td><td>
<table>
<tr><th>Type</th><th>Percentage</th><th>CO1</th><th>CO2</th><th>CO3</th><th>CO4</th><th>CO5</th></tr>
<tr><td>Task 1</td><td>10</td><td>√</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Group Task 1</td><td>15</td><td></td><td>√</td><td></td><td></td><td></td></tr>
<tr><td>Midsem Test</td><td>25</td><td></td><td>√</td><td>√</td><td></td><td></td></tr>
<tr><td>Task 2</td><td>10</td><td></td><td></td><td>√</td><td></td><td></td></tr>
<tr><td>Group Task2</td><td>15</td><td></td><td></td><td></td><td>√</td><td></td></tr>
<tr><td>FinalSem test</td><td>25</td><td></td><td></td><td></td><td>√</td><td>√</td></tr>
<tr><td>Total</td><td>100</td><td></td><td></td><td></td><td></td><td></td></tr>
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<tr><td>Reading list</td><td>

William Stallings, Data and Computer Communication 8th Ed., Prentice Hall, 2007
Andrew S. Tanenbaum, Computer Network 4th Ed., Prentice Hall, 2003
James F. Kurose and Keith W. Ross, Computer Networking: A Top-Down Approach Featuring the Internet, Addison-Wesley, 2000

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