UNIVERSITAS GADJAH MADA
Faculty of Mathematics and Natural Sciences
Department of Computer Science and Electronics
Sekip Utara Bulaksumur Yogyakarta 55281 Telp: +62 274 546194 Email: dep-ike.mipa@ugm.ac.id Website: http://dcse.fmipa.ugm.ac.id

Bachelor in Computer Science
Telp : +62 274 546194
Email : prodi-s1-ilkom.mipa@ugm.ac.id
Website : http://dcse.ugm.ac.id/

MODULE HANDBOOK

Module name	**Special Topic on Computer and Network System**
Module level, if applicable	Undergraduate
Code, if applicable	MII-2608
Courses, if applicable	NA
Semester(s) in which the module is taught	Fall (Odd)
Person responsible for the module	Dr. Mardhani Riasetiawan, MT
Lecturer(s)	Dr. Mardhani Riasetiawan, MT
Language	Bahasa Indonesia & English
Relation to curriculum	1. Undergraduate degree program, compulsory, 4th semester. 2. International undergraduate program, compulsory, 4th 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: 3 x 50 = 100 minutes per week. 2. Exercises and Assignments: 3 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.
Required and recommended prerequisites for joining the module	NA
Learning outcomes and their corresponding PLOs	After completing this module, a student is expected to: CO1. Be able to identify frontier issues in computer and network systems CO2. Able to explain theories on specific topics of computer systems and networks CO3. Able to identify tools and support for specific topics on computer systems and networks CO4, Able to come up with ideas, innovations and products on special points CO5. Able to present and present ideas and innovations, as well as communicate professionally and respond to feedback in the innovation development process

<table>
<tr><td></td><td>
<table>
<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>
</table>
</td></tr>
<tr><td>Content</td><td>1. This course provides knowledge of specific topics on computer systems and networks.
2. Discusses advanced themes in the scope of: computer systems, networks, intelligent environments, cybersecurity.
3. The scope of discussion can be in the form of and about: Blockchain, Quantum Computing, Fog Computing, Smart Nation, Cyber Analytics, Privacy Preservation, Next Big Data technology</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 or
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>10</td><td></td><td>√</td><td></td><td></td><td></td></tr>
<tr><td>MidSem Test</td><td>30</td><td></td><td>√</td><td>√</td><td></td><td></td></tr>
<tr><td>Task 2</td><td>5</td><td></td><td></td><td></td><td>√</td><td></td></tr>
<tr><td>Group Task 2</td><td>10</td><td></td><td></td><td>√</td><td>√</td><td></td></tr>
<tr><td>Final Test</td><td>30</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>
</table>
</td></tr>
<tr><td>Reading list</td><td>1. HandBook of Big Data Technologies, 1st edition, 2017. Albert Y Zomaya, Sherif Sakr, Springer
2. Internet of Things A to Z: Technologies and Applications, Qusay F. Hassan, May 2018, Wiley IEEE Press
3. Cloud Computing: Concepts, Technology and Architecture, The Pearson Service Technology Series from Thomas Earl, Earl Thomas, Puttini Ricardo, Mahmood Zalgham</td></tr>
</table>

Created date : June 25, 2021

Revision date : July 1, 2022