

**UNDERGRADUATE PROGRAM IN COMPUTER SCIENCE
DEPARTMENT OF COMPUTER SCIENCE AND ELECTRONICS
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
UNIVERSITAS GADJAH MADA**

Module name	Computer Network Labworks	
Module level	Undergraduate	
Code	MII-2652	
Courses (if applicable)	Computer Network Labworks	
Semester	Even (Genap)	
Contact person	Aufaclav Zatu Kusuma Frisky, M.Sc.	
Lecturer	Aufaclav Zatu Kusuma Frisky, M.Sc.	
Language	English	
Relation to curriculum	<ol style="list-style-type: none"> 1. Undergraduate degree program; mandatory; 4th semester. 2. International undergraduate program; mandatory; 4th semester. 	
Type of teaching, contact hours	<ol style="list-style-type: none"> 1. Undergraduate degree program: lectures, <30 students 2. International undergraduate program: lectures, < 30 students 	
Workload	<ol style="list-style-type: none"> 1. Lectures: 1 x 100 = 100 minutes (1.5 hours) per week. 2. Exercises and Assignments: 1 x 60 = 60 minutes (1 hours) per week. 3. Private study: 2 x 60 = 120 minutes (2 hours) per week. 	
Credit points	1 credit points (cr).	
Requirements according to the examination regulations	A student must have attended at least 75% of the lectures to sit in the exams.	
Recommended prerequisites	Programming II	
Learning outcomes and their corresponding PLOs	After completing this module, a student is expected to:	
	C01 Students master the basic techniques of network design, including the introduction of tools and wiring	PL03
	C02 Students can explain concepts as well as implement IP addressing and subnetting	PL03
	C03 Students can explain the concept as well as implement ARP and DNS	PL03
	C04 Students can explain the concept as well as implement DHCP and NAT	PL03
	C05 Students can explain the concept and implement Wi-Fi and WAN	PL03

	C06 Students can explain the concept and implement Static Routing	PL04																																																																		
	C07 Students can explain the concept and implement RIP v2	PL04																																																																		
	C08 Students can explain the concept and implement OSPF	PL04																																																																		
	C09 Students are able to apply the concepts and techniques they have learned to manage and network security.	PL05																																																																		
Content	Computer Network Practicum is a compulsory subject given to the first semester students of Computer Science Department of FMIPA UGM. The purpose of this course so that students are able to use, perform network installation and manage computer network. Students are introduced to how to do addressing on the network either with CIDR or VLSM method, and then designing the network topology as well as doing routing both static and dynamic. Dynamic routing is done by two methods, namely RIPv2 and OSPF single area. Furthermore, students are also given material on network security.																																																																			
Study and examination requirements and forms of examination	Final examination.																																																																			
Media employed	LCD, whiteboard, websites, handouts																																																																			
Assessments and Evaluation	<table border="1"> <thead> <tr> <th>LO</th> <th>Metode Evaluasi</th> <th>Tipe</th> <th>Persentase</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td rowspan="2">L01</td> <td>Tugas 1</td> <td>Formatif</td> <td>5%</td> <td rowspan="2">10%</td> </tr> <tr> <td>Soal 1 pada UTS</td> <td>Summatif</td> <td>5%</td> </tr> <tr> <td rowspan="2">L02</td> <td>Tugas 2</td> <td>Formatif</td> <td>5%</td> <td rowspan="2">10%</td> </tr> <tr> <td>Soal 2 pada UTS</td> <td>Summatif</td> <td>5%</td> </tr> <tr> <td rowspan="2">L03</td> <td>Tugas 3</td> <td>Formatif</td> <td>5%</td> <td rowspan="2">10%</td> </tr> <tr> <td>Soal 3 pada UTS</td> <td>Summatif</td> <td>5%</td> </tr> <tr> <td rowspan="2">L04</td> <td>Tugas 4</td> <td>Formatif</td> <td>5%</td> <td rowspan="2">10%</td> </tr> <tr> <td>Soal 4 pada UTS</td> <td>Summatif</td> <td>5%</td> </tr> <tr> <td rowspan="2">L05</td> <td>Tugas 5</td> <td>Formatif</td> <td>10%</td> <td rowspan="2">15%</td> </tr> <tr> <td>Soal 5 pada UTS</td> <td>Summatif</td> <td>5%</td> </tr> <tr> <td rowspan="2">L06</td> <td>Tugas 6</td> <td>Formatif</td> <td>5%</td> <td rowspan="2">10%</td> </tr> <tr> <td>Soal 1 pada UAS</td> <td>Summatif</td> <td>5%</td> </tr> <tr> <td rowspan="2">L07</td> <td>Tugas 7</td> <td>Formatif</td> <td>5%</td> <td rowspan="2">10%</td> </tr> <tr> <td>Soal 2 pada UAS</td> <td>Summatif</td> <td>5%</td> </tr> <tr> <td>L08</td> <td>Tugas 8</td> <td>Formatif</td> <td>5%</td> <td>10%</td> </tr> </tbody> </table>		LO	Metode Evaluasi	Tipe	Persentase	Total	L01	Tugas 1	Formatif	5%	10%	Soal 1 pada UTS	Summatif	5%	L02	Tugas 2	Formatif	5%	10%	Soal 2 pada UTS	Summatif	5%	L03	Tugas 3	Formatif	5%	10%	Soal 3 pada UTS	Summatif	5%	L04	Tugas 4	Formatif	5%	10%	Soal 4 pada UTS	Summatif	5%	L05	Tugas 5	Formatif	10%	15%	Soal 5 pada UTS	Summatif	5%	L06	Tugas 6	Formatif	5%	10%	Soal 1 pada UAS	Summatif	5%	L07	Tugas 7	Formatif	5%	10%	Soal 2 pada UAS	Summatif	5%	L08	Tugas 8	Formatif	5%	10%
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