

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

Module name	Computer Networks
Module level	Undergraduate
Code	MII_2602
Courses (if applicable)	Computer Networks
Semester	Even
Contact person	Bakhtiar Alldino Ardi Sumbodo, S.Si., M.Cs.
Lecturer	Bakhtiar Alldino Ardi Sumbodo, S.Si., M.Cs. Dr.Techn. Ahmad Ashari
Language	Bahasa Indonesia
Relation to curriculum	Undergraduate degree program, mandatory, 4 th semester
Type of teaching, contact hours	Undergraduate degree program: lectures, < 60 students
Workload	1. Lectures: 3 x 50 = 150 minutes (2.5 hours) 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 regulations	A student must have attended at least 75% of the lectures to sit in the exams.
Recommended prerequisites	MII 2601 Microprozessor
Learning outcomes and their corresponding PLOs	<p>After completing this module, a student is expected to:</p> <p>CO1 Be able to explain the basic concepts of networks protocols, data communication, architectures, network management and security PLO3</p> <p>CO2 Be able to explain data communication principle, Asynchronous dan synchronous networks PLO3</p> <p>CO3 Be able to explain the central points of LAN, WAN and MAN PLO3</p> <p>CO4 Be able to explain the concepts and features of switching, and routing PLO3</p> <p>CO5 Be able to explain the network optimization and network security PLO3</p> <p>CO6 Be able to apply th concepts, standards and practices to handle network management and security PLO4</p> <p>CO7 Be able to purposes the ideas to solved the current issue in network and security. PLO5</p>

Content	In this course, students are introduced to the basics of data communications and network communications. The learning objectives of this course provides an understanding of the state of the art of jaringam protocols, architectures and applications. The course also aims to explain the topology of computer networks, computer network management, and security of computer networks. In particular, it was my eye provides an overview of research in the field of computer networks and their implementation at the level of industry and standards used.			
Study and examination requirements and forms of examination	Task evaluation Project presentation evaluation Student activities contribution Midterms examination and Final examination.			
Media employed	LCD, blackboard, websites, and network management tools.			
Assessments and Evaluation	LO	Evaluation Method	Type	Percentage
	LO1	Task 1 – Review Case study	formatif	5%
		Problem no 1 UTS	summatif	5%
	LO2	Problem no 2 UTS	summatif	5%
		Problem no 3 UTS	summatif	5%
		Task 2 – Summary article	formatif	5%
	LO3	Problem no 4 UTS	summatif	5%
		Problem no 5 UTS	summatif	5%
		Task 3 – Cvase study	formatif	5%
	LO4	Problem no 1 UAS	summatif	5%
		Task 4 – case study	formatif	5%
	LO5	Problem no 2 UAS	summatif	5%
		Problem no 3 UAS	summatif	5%
	LO6	problem no 4 UAS	summatif	5%
		Problem no 5 UAS	summatif	5%
		Task 5 – Case study	formatif	5%
	LO7	Project mid sem	formatif	12.5%
		Project final	formatif	12.5%
Reading List	Stalling, W., Data and Computer Coommunications. Eighth Edition, Person Prentice Hall. 2007. Stalling, W., Network Security Essentials, Fourth Edition, Person Prentice Hall, 2011. Riasetiawan, M., Future Networks, Cloud Publishing (white books), 2017			