Module Description

Module name	Specific Topic in Computer Networks
Module level, if applicable	Bachelor of Informatics
Code, if applicable	21D12143303
Subtitle, if applicable	-
Course, if applicable	-
Semester(s) in which the module is taught	6th or 7th
Person responsible for the module	Dr.Eng. Ady Wahyudi Paundu, S.T., M.T.
Lecturer	1. Dr.Eng. Ady Wahyudi Paundu, S.T., M.T. 2. Dr.Eng. Zulkifli Tahir, S.T., M.Sc.
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is an elective course and offered in the 6th or 7th semester.
Type of teaching, contact hours	Teaching methods: [simulation], [case study]. Teaching forms: [lecture], [tutorial], [practicum]. CH : 8.00 - 16.00
Workload	For this course, students are required to meet a minimum of 136.00 hours in one semester, which consist of: - 40.00 hours for lecture, - 48.00 hours for structured assignments, - 48.00 hours for private study
Credit points	3 credit points (equivalent with 5.1 ECTS)
Requirements according to the	Students have participated in at least 80% of the learning activities (Academic Regulations, Chapter VII)

examination regulations	
Recommended prerequisites	-
Module objectives/intended learning outcomes	After completing the course, Students are able: **Intended Learning Outcomes (ILO):** **ILO 1 :** Have the knowledge of fundamental in Computing Science that includes basic theory and concepts of computer science, Mathematics and Statistics, Programming Algorithm, Software Engineering, Information Management and Digital Resilience, also the advance topics of either Artificial Intelligence, Data Science, Computer Network, Cloud Computing or Internet of Things. **ILO 3 :** Apply the knowledge of computing and other related disciplines to analyse and identify solutions for any computing-based problem. **Course Learning Objective (CLO):** After completing this course, students will acquire Cisco Academy CCNAv7: - Introduction to Networks - Switching, Routing, and Wireless Essentials - Enterprise Networking, Security, and Automation **Sub-CLO** ILO 1 => CLO 1: Have the knowledge of basic networks, switching, routing, wireless communication, enterprise networking, security and automation. ILO 3 => CLO 2: Able to configure several aspects of the network, such as basic configuration, switching, routing and security
Content	Students will learn about : 1) Configure switches and end devices to provide access to local and remote network resources. 2) Explain how physical and data link layer protocols support the operation of Ethernet in a switched network. 3) Configure routers to enable end-to-end connectivity between remote devices.

	4) Create IPv4 and IPv6 addressing schemes and verify network connectivity between devices 5) Explain how the upper layers of the OSI model support network applications. 6) Configure a small network with security best practices. 7) Troubleshoot connectivity in a small network.
Forms of Assessment	Assessment techniques: [participation], [written test]. Assessment forms: [final term exam], [assignment]. <table><tr><td colspan="3">CLO 1</td><td colspan="3">CLO 2</td></tr><tr><td>Exam 1</td><td>Exam 2</td><td>Exam 3</td><td>Assign 1</td><td>Assign 2</td><td>Assign 3</td></tr><tr><td>14</td><td>13</td><td>13</td><td>20</td><td>20</td><td>20</td></tr></table>
Study and examination requirements and forms of examination	**Study and examination requirements:** - Students must attend 15 minutes before the class starts. - Students must switch off all electronic devices. - Students must inform the lecturer if they will not attend the class due to sickness, etc. - Students must submit all class assignments before the deadline. - Students must attend the exam to get final grade. **Form of examination:** Online exam: Multiple Choice and Simulation
Media employed	Video conference, slide presentation, Learning Management System (LMS)
Reading list	**Main :** **Netacad material for CCNAv7**