Module Description

Module name	Telecommunication Technology
Module level, if applicable	Bachelor of Informatics
Code, if applicable	21D12143003
Subtitle, if applicable	-
Course, if applicable	-
Semester(s) in which the module is taught	6th
Person responsible for the module	Dr.Eng. Wardi, ST., M.Eng.
Lecturer	1. Dr.Eng. Wardi, ST, M.Eng. 2. Dr.Eng. Muhammad Niswar, ST., M.IT
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is an elective course and offered in the 6th semester.
Type of teaching, contact hours	Teaching methods: [group discussion], [project-based learning] Teaching forms: [lecture], [tutorial] CH : 08.00 - 16.00
Workload	For this course, students are required to meet a minimum of 136 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	Students have participated in at least 80% of the learning activities

according to the examination regulations	(Academic Regulations, Chapter VII)
Recommended prerequisites	
Module objectives/intended learning outcomes	After completing the course, Students are able: **Intended Learning Outcomes (ILO):** **ILO 7 :** Perform a logical systematic procedure to solve problems, then communicate their ideas in a convincing and effective manner, either in written or orally, to propose solutions. **Course Learning Objective (CLO):** After completing the Mobile Adhoc Network Course for one semester, students are able to understand aspects of ad hoc networks, from design through performance issues to application requirements. It starts with characteristics features, applications of ad hoc networks, Modulation techniques and voice coding. It also covers the IEEE 802.11Wireless LAN and Bluetooth standards. **Sub CLO :** ILO 7 => CLO 1 : Students are able to understanding the current topics and the principles in mobile ad hoc networks (MANETs), and able to explain routing protocols function and their implications
Content	Students will learn about : 1. Introduction of ad-hoc network 2. Medium Access Protocols 3. Network Protocols 4. End – End Delivery and Security 5. Cross Layer Design
Forms of Assessment	Assessment techniques: [observation],[written test]

	Assessment forms: [assignment], [presentation] Assignment = 60%, Presentation = 40% CLO 1 => ILO 7: 60% (Assignment : participation); 40% (Presentation: observation)
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:** Assignment and Presentation
Media employed	Zoom/Gmeet, LMS Unhas (sikola.unhas.ac.id), e-book, and Slide Presentation
Reding list	**Main :** 1. C. Siva Ram Murthy and B. S. Manoj, Ad hoc Wireless Networks Architecture and Protocols, 2nd edition, Pearson Edition, 2007. **Support :** 1. Charles E. Perkins, Ad hoc Networking, Addison – Wesley, 2000. 2. Mohammad Ilyas, The handbook of ad-hoc wireless networks, CRC press, 2002