Module Description

Module name	Fundamental of Information Technology
Module level, if applicable	Bachelor of Informatics
Code, if applicable	21D12110102
Subtitle, if applicable	-
Course, if applicable	**-**
Semester(s) in which the module is taught	1st
Person responsible for the module	Dr. Indrabayu., ST., MT.,.Bus.Sys
Lecturer	1. Dr. Indrabayu., ST., MT., M.Bus.Sys 2. Anugrayani Bustamin., ST., MT
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a compulsory course and offered in the 1st semester.
Type of teaching, contact hours	Teaching methods: [group discussion], [simulation] Teaching forms: [lecture], [tutorial]. CH : 08.00 - 16.00
Workload	For this course, students are required to meet a minimum of 90.67 hours in one semester, which consist of: - 26.67.00 hours for lecture, - 32 hours for structured assignments, - 32 hours for private study
Credit points	2 credit points (equivalent with 3.4 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 6 :** Perform effectively in a team, either as a member or leader, in activities related to the program's discipline. **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 Fundamental of Information Technology Course for one semester, students can understand the informatics field. Several topics on basic theoretical concepts and the application of computing science and software engineering are carried out independently with logical, critical, systematic, and innovative thinking in science and technology. **Sub CLO :** ILO 1 => CLO 1 : Students are able to define the form of data and information and students are able to understand the concept of databases ILO 6 => CLO 2 : Students can work together in small groups to describe the basic operating system and be able to know the ethics of

	using IT and its impact ILO 7 => CLO 3 : Students are able to present computerized systems, hardware and software, categorize and calculate number systems and ASCII codes, recognize and program simple coding with Programming Languages, understand computer network concepts, application software in various fields and recognize Big Data disciplines, Artificial Intelligence and the Internet of Things.
Content	Students will learn about : 1. Data and Information 2. Computerized System, Hardware and Software 3. ASCII number system and codes 4. Programming language 5. Introduction to Database 6. Operating system 7. Computer network 8. Application Software in various interests 9. Utilization of IT in various fields 10. IT Utilization Ethics and its impact 11. Introduction to Big Data, AI and IoT
Forms of Assessment	Assessment techniques: [observation], [written test]. Assessment forms: [midterm exam], [assignment], [presentation]. Mid term exam = 25%, Assignment = 30%, Presentation = 45% CLO 1 => ILO 1: 30% (Assignment: participation) CLO 2 => ILO 6: 25% (midterm exam: written test) CLO 3 => ILO 7: 45% (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:** Written test and Presentation

Media employed	Video conference, Slide presentation, Learning Management System (LMS).
Reading list	**Main :** 1. V. Rajaraman, "Introduction to Information Technology (second edition)", Eleventh Printing, 2013 **Support :** 1. David Bainbridge, "Introduction to Information Technology Law", Trans Atlantic Publication, 2007 2. Brian K. Williams; Stacey C. Sawyer, "Using information technology : a practical introduction to computers & communications", 2015