Module Description

Module name	Operating System
Module level, if applicable	Bachelor of Informatics
Code, if applicable	207D4213
Subtitle, if applicable	-
Course, if applicable	-
Semester(s) in which the module is taught	3rd
Person responsible for the module	Adnan., ST., MT., PhD
Lecturer	Adnan., ST., MT., PhD
Language	Indonesian Language [Bahasa Indonesia]
Relation to Curriculum	This course is a compulsory course and offered in the 3rd semester.
Type of teaching, contact hours	Teaching methods : [Lecture], [Project-based Learning] CH: 08:00 - 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 examination regulations	Students must have attended all minimum 80% of classes and submitted all class assignments that are scheduled before the final tests.
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 Computing Science that includes basic theory and concept of computer science, Mathematics and Statistics, Programming Algorithm, Software Engineering and Information System. **ILO 3 :** Apply the knowledge of computing and other related disciplines to analyze and identify solutions for any computing-based problem. **Course Learning Objective (CLO):** After attending the Operating System course for 1 (one) semester, students are expected to be able to explain the meaning of the operating system and its development, operating system components, operating system structure, memory management, processes, equipment and files, protection, and operating system security. **Sub CLO :** ILO 1 => CLO 1: Students are able to understand the development of operating systems, operating system structures, Deadlocks, Processes and Threads, CPU scheduling, memory management, and problem of process synchronization. ILO 3 => CLO 2: Students are able to explain how to implement files and the concept of file management
Content	Students will learn about : 1. Understanding the operating system and operating system development. 2. Operating system structure 3. Processes and Threads 4. CPU Scheduling 5. Sinkronisasi Proses 6. Deadlock 7. Memory management 8. File Management 9. File System Implementation

Forms of Assessment	Assessment is carried out based on written examinations, assessment / evaluation of the learning process and performance with the following components: CLO 1 : ILO 1 : 35% Mid Exam + 15% Assignment CLO 2 : ILO 2(3) : 40% Final Exam + 10% Assignment
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. **Form of examination:** Written exam: Essay
Media employed	Video Conference, Video and Power Point Presentation.
Reading list	**Main :** 1. Abraham Silberschatz, Peter Baer Galvan, Greg Gagne, 2013, Operating System Concepts, 9th edition, John Wiley & Sons, Inc. 2. Bambang Hariyanto, 2002, Sistem Operasi, Edisi Kedua, Penerbit Informatika Bandung. 3. Andrew S. Tanenbaum, Albert S. Woodhull, 2006, Operating Systems, Design and Implementation, 3rd edition, Prentice Hall. 4. Andrew S. Tanenbaum, 2008, Modern Operating Systems, 3rd edition, Prentice Hall.