

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

Module name	Operating System		
Module level	Undergraduate		
Code	MII-2611		
Courses (if applicable)	Operating System		
Semester	Spring (Even)		
Contact person	Lukman Heryawan, ST, MT		
Lecturer	Lukman Heryawan, ST, MT Arif Nurwidyantoro, S.Kom, M.Cs		
Language	Bahasa Indonesia and English		
Relation to curriculum	1. Undergraduate degree program, mandatory, 4 th semester. 2. International undergraduate program, mandatory, 4 th semester.		
Type of teaching, contact hours	1. Undergraduate degree program: lectures, < 60 students 2. International undergraduate program: lectures, < 30 student		
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	Computer Organization and Architecture		
Learning outcomes and their corresponding PLOs	LO	Description	Supported PLO
	LO-1	Understand and be able to explain about the organization of computer systems, also operating system role and structures	PLO3
	LO-2	Understand and be able to explain process management	PLO3
	LO-3	Understand and be able to explain the principles of concurrency	PLO5
	LO-4	Understand and be able to explain memory management	PLO3

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Content	In this course, students will study operating system that has role as the manager of every computer's resources: hardware and software. This course will discuss about function and coordination of CPU, Memory, Disk, and Input-Output (I/O) by operating system from theoretical perspectives.																																																																																			
Study and examination requirements and forms of examination	Exercises, Midterms examination and Final examination.																																																																																			
Media employed	LCD, blackboard, websites																																																																																			
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Reading List	W1: Stallings, W., Operating Systems Internals and Design Principles, 8th Edition, Pearson Education, 2015 A1: Silberschatz, A., Galvin, P.B., and Gagne, G., Operating System Concepts, 9th Edition, John Wiley and Sons, 2013 A2: Tanenbaum, A.S., and Bos, H., Modern Operating Systems, 4th Edition, Pearson Education, 2015
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