



UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Department of Computer Science and Electronics

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Doctoral Programme of Computer Science

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Module name : **MOBILE AND CLOUD COMPUTING**

Module level, if applicable : **DOCTORAL**

Code, if applicable : MII7530

Semester(s) in which the module is taught : I (Odd)

Person responsible for the module : Moh Edi Wibowo, Ph.D.

Lecturer(s) : Moh Edi Wibowo, Ph.D., Dr. Mardhani Riasetiawan, M.T.

Language : Indonesia

Relation to curriculum : Doctorate; Elective; 1st or 3rd semester.

Credit points : 3 credits

Type of teaching, contact hours : Doctorate: lectures for < 5 students. Contact hours are lecture hours.

Workload : (1) Lectures and discussion: 3 x 50 = 150 minutes (2.5 hours) per week. (2) Exercises and assignments: 3 x 60 = 180 minutes (3 hours) per week. (3) Independent study: 3 x 60 = 180 minutes (3 hours) per week.

Requirements according to the examination regulations : A student must have attended at least 75% of the lectures to sit in the exams.

Recommended prerequisite : -

Module objectives/ intended learning outcomes : This course is a postgraduate level course of mobile and cloud computing. In this course, students will learn about recent development of mobile and cloud technology that include not only underlying principles and theoretical approaches but also unique use cases, impacts of the technology to life, and contemporary research and challenges. After completing this course, students are expected to:

CO1: Analyse and evaluate various approaches, methods, and techniques that exist in mobile and cloud technologies, which are related to cloud infrastructure and its components, front-end and back-end systems, mobile UI/UX, application architecture and cloud-based

The PLO of DP-CS

PLO	Knowledge Area	PLO Description
PLO1	[Values and principles]	A graduate should be devoted to God Almighty, uphold the humanity values, internalize academic values and ethics, responsible in working around expertise independently.
Managerial Capability		
PLO2	[Professional attitudes]	A graduate should have good interpersonal skills; able to work together within the organization, both as a leader and a member; able to be the initiator; able to manage and delegate tasks; and have a sense of responsibility for their own work as well as take responsibility for the achievement of the organization's work.
PLO3	[Communication skills]	A graduate should be able to communicate effectively and efficiently with stakeholders from various backgrounds; use English well; and able to write and present scientific papers correctly and well.
PLO4	[Life-long learning]	A graduate should be up to date with the state-of-the-art especially in computer science field, able to take parts in the development of computer science field that is engaged in and relate it to other fields throughout life.
Working Capability		
PLO5	[Problem-solving and Scientific skills]	A graduate should be able to analyse science and technology problems in the computer science field, develop alternative solutions through intra disciplinary, interdisciplinary, and trans disciplinary approaches to produce innovative, original, and tested works.
PLO6	[Ability to formulate and do research]	A graduate should be able to formulate research problems through critical, exploratory, and innovative studies both independently and in groups of computer science field that is engaged in and present research results in a scientific paper at regional or international level.
Mastering Knowledge		
PLO7	[Fundamental knowledge]	A graduate should be able to develop knowledge in the field of computer science that is engaged, which includes abstraction, complexity, evolution and philosophy of changes or developments in the field of science.
PLO8	[Applied knowledge]	A graduate should be able to develop theoretical, philosophical, and applied concepts in the field of computer science that is engaged in, and to represent them in a structured and systematic manner.