Department of Mathematics
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COURSE	**Course Name**	**: Software Engineering**
	Code	**: KM184827**
	Credits	**: 2**
	Semester	**: 8**

DESCRIPTION OF COURSE

This course discusses the concept and model of object-oriented software development, functional or combination of both (UML) along with the creation of development documentation.

These course materials include the basic concepts of software development, the development phase of the software development (requirement analysis and modeling, system design and modeling, implementation and testing), introduction to software project management.

Lecture methods include tutorials and discussions. In addition, to train student's ability in cooperation and communication, will be given software development projects that will be completed in groups and given in the middle lectures. While assessment methods include written evaluation and assessment of the process and documentation of the results of the analysis, design and modeling, and how to present it.

CAPAIAN PEMBELAJARAN LULUSAN YANG DIBEBANKAN MATA KULIAH

PLO 3	[C4] Students are able to analyze simple and practical problems in at least one field of analysis, algebra, modeling, system optimizations and computing sciences

PLO 4	[C5] Students are able to work on a simple and clearly defined scientific task and explain the results, both written and verbally either on the area of pure mathematics or applied mathematics or computing sciences
PLO 5	[C3] Students are able to make use of the principles of long life learning to improve knowledge and current issues on mathematics
PLO 7	Students are able to demonstrate an attitude of responsibility and commitment to law enforcement, ethics, norms for community and environmental sustainability

CAPAIAN PEMBELAJARAN MATA KULIAH

1. Mastering the concept and model of object-oriented software development, functional and combined both (UML) and create software development documentation.
2. Able to complete and provide alternative solutions in software development either with the approach being studied either independently or in teamwork.

POKOK BAHASAN

Introduction: Software vs Software Engineering, software development process, principles in software development, understanding requirement, requirement modeling, modelling with UML/Rational Rose, design concept and modeling, Web Apps Design, software testing, software project management, case study.

PRASYARAT

Object Oriented Programming

PUSTAKA

1. Roger S Pressman, Software Engineering: A Practitioner's approach, 8th ed, McGraw Hill , 2012

PUSTAKA PENDUKUNG

1. Ian Sommerville: Software Engineering, 8th ed, McGraw Hill, 2010