

Course Code	TKIT162207	
Course Name	Software Architecture	
Course Instructors	Selo; Warsun Najib	
Course Type	Required	
Course Classification	Engineering Topics	
Credit / Contact Hour per Week	2 /100 minutes per Week	
Course Description	This course will emphasize effective software design with emphasis on technology selection, planning workmanship, and also risk management in the development process. This course will prepare students to be professional in software such as systems analyst, software architect, and enterprise architect	
Prerequisites Courses		
Covered Student Outcome	Fundamental Engineering Knowledge (a) Development of Engineering Solution (b) Modern Tools Utilization (e) Engineering Design (c)	
Learning Outcome		
		Study Program Student Outcome
No	Learning Outcome	SO a – SO k
1.	Understand the role and urgency of software architecture in software development	Fundamental Engineering Knowledge
2.	Able to model and evaluate software architecture.	Development of Engineering Solution
3.	Able to understand various quality attributes in designing software architecture and designing software architecture based on certain quality attributes.	Engineering Design
4.	Able to document software architecture.	Fundamental Engineering Knowledge
5.	Able to understand various contemporary software (SPL, Middleware, SOA, AOA, and Cloud)	Modern Tools Utilization
6.		Choose an item.
7.		Choose an item.
8.		Choose an item.
9.		Choose an item.
Topic	a. Introduction to Software Architecture b. Software Architecture c. Modeling and Notation d. Quality Attributes e. Component and Connector f. Security g. Evaluation h. Documenting Software Architecture i. Software Product Lines j. Middleware Architecture and Technologies k. Model-Driven Architecture l. Service-Oriented Architecture m. Aspect Oriented Architecture n. Architecture in the Cloud	
Direct Assessment	Direct Assessment Plan	
	Mid Exam	LO1, LO2
	Final Exam	LO3, LO4
Indirect Assesment	Questionnaire and direct communication	

References	<ul style="list-style-type: none">• Eric M. Dashofy, Nenad Medvidovic, Richard N. Taylor. 2009. Software Architecture: Foundations, Theory, and Practice. John Wiley & Sons• Michael Bell. 2016. Incremental Software Architecture. John Wiley & Sons• Rick Kazman, Paul Clements, Len Bass. 2012. Software Architecture in Practice, Third Edition. Addison-Wesley Professional.• Tilak Mitra. 2015. Practical Software Architecture: Moving from System Context to Deployment IBM Press.
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