



UNIVERSITAS GADJAH MADA

Faculty of Mathematics and Natural Sciences

Department of Computer Science and Electronics

Sekip Utara Bulaksumur Yogyakarta 55281 Telp: +62 274 546194 Email: dep-ike.mipa@ugm.ac.id Website: <http://dcse.fmipa.ugm.ac.id>

Bachelor in Computer Science

Telp : +62 274 546194

Email : prodi-s1-ilkom.mipa@ugm.ac.id

Website : <http://dcse.ugm.ac.id/>

MODULE HANDBOOK

Module name	Software Engineering Methods
Module level, if applicable	Bachelor
Code, if applicable	MII21-2503
Courses, if applicable	Software Engineering Methods
Semester(s) in which the module is taught	Spring (Even)
Person responsible for the module	Dr. Azhari, M.T.
Lecturer(s)	Dr. Azhari, M.T.
Language	Bahasa Indonesia and English
Relation to curriculum	Bachelor degree, compulsory, 4 th semester.
Teaching methods	100 minutes of lectures and 120 minutes of structured activities per week.
Workload (incl. contact hours, self-study hours)	1. Lectures: 2 x 50 = 100 minutes (1.67 hours) per week. 2. Exercises and Assignments: 2 x 60 = 120 minutes (2 hours) per week. 3. Private study: 2 x 60 = 120 minutes (2 hours) per week.
Credit points	2 credit points.
Requirements according to the examination regulations	A student must have attended at least 75% of the lectures to sit in the exams.
Required and recommended prerequisites for joining the module	MII21-2501 Database

<p>Learning outcomes and their corresponding PLOs</p>	<p>After completing this module, a student is expected to:</p> <p>CO1. Able to explain, provide understanding examples, business product processes, software application products.</p> <p>CO2. Able to explain, provide examples of project designs from a structured development approach.</p> <p>CO3. Able to explain, provide examples of project design from object-oriented approach.</p> <p>CO4. Able to explain, provide examples of project designs from iterative, agile, scrum approaches.</p> <p>CO5. Able to apply software engineering principles and techniques for product design cases/software projects.</p> <p>CO6. Able to communicate, cooperate, coordinate as a team member, project manager, competently, politely and professionally.</p> <table border="1" data-bbox="630 724 1339 982"> <thead> <tr> <th colspan="2">PLO</th> <th>CO 1</th> <th>CO 2</th> <th>CO 3</th> <th>CO 4</th> <th>CO 5</th> <th>CO 6</th> </tr> </thead> <tbody> <tr> <td rowspan="5">Program Learning Outcome (PLO)</td> <td>PLO1</td> <td>√</td> <td></td> <td></td> <td></td> <td></td> <td>√</td> </tr> <tr> <td>PLO2</td> <td>√</td> <td>√</td> <td>√</td> <td></td> <td></td> <td></td> </tr> <tr> <td>PLO3</td> <td></td> <td></td> <td>√</td> <td>√</td> <td>√</td> <td></td> </tr> <tr> <td>PLO4</td> <td></td> <td></td> <td></td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>PLO5</td> <td></td> <td></td> <td></td> <td></td> <td>√</td> <td>√</td> </tr> </tbody> </table>	PLO		CO 1	CO 2	CO 3	CO 4	CO 5	CO 6	Program Learning Outcome (PLO)	PLO1	√					√	PLO2	√	√	√				PLO3			√	√	√		PLO4				√	√	√	PLO5					√	√
PLO		CO 1	CO 2	CO 3	CO 4	CO 5	CO 6																																						
Program Learning Outcome (PLO)	PLO1	√					√																																						
	PLO2	√	√	√																																									
	PLO3			√	√	√																																							
	PLO4				√	√	√																																						
	PLO5					√	√																																						
<p>Content</p>	<p>This Software Engineering Methods course will introduce and explain to students the concepts and methods needed to develop a software system. Overall this course aims to develop students' broad understanding of the software engineering industry. Students will be given an explanation of the approach, or paradigm of software development methods, such as the classical approach, structured approach, object-oriented approach, Agile approach, or Scrum approach. Students are given an explanation of the stages, activities, and examples to carry out requirements, analysis and software design from simple cases, complex cases or integrated systems.</p>																																												
<p>Study and examination requirements and examination forms</p>	<p>In class group discussion, Quiz, Individual task, Group task, Mid-terms examination and Final examination</p>																																												
<p>Media employed</p>	<p>e-learning Platform (ELOK), LCD, blackboard, and websites.</p>																																												

Assessments and evaluation	Type	Percentage	C	C	C	C	C	C
			O	O	O	O	O	O
			1	2	3	4	5	6
	Quiz	5	√			√		
	Task 1 (Individual + Group)	5		√	√			√
	Task 2 (Group)	10		√	√			√
	Task 3 (Group)	10				√	√	√
	Task 4 (Individual + Group)	5					√	√
	Midterm Exam	30	√	√	√			
	Final Exam	35		√		√	√	
	Total	100						
Reading list	<ol style="list-style-type: none"> 1. Ian Sommerville, Software Engineering, 9th Edition, Addison-Wesley, 2010. 2. Roger S. Pressman, Software Engineering: a Practitioner's Approach, 7th, McGraw-Hill Higher Education, 2010. 3. Ian Sommerville, Engineering Software Products: An Introduction to Modern Software Engineering, Pearson, 2020. 4. Roger S Pressman and Bruce R Maxim, Software engineering: a practitioner's approach, McGraw Hill, 2020 							

Created date : July 20, 2022

Revision date : July 20, 2022