



**INSTITUT TEKNOLOGI SEPULUH NOPEMBER  
FACULTY OF CIVIL, PLANNING AND GEO ENGINEERING  
DEPARTMENT OF GEOMATICS ENGINEERING  
UNDERGRADUATE PROGRAM**

Document Code

**SEMESTER LEARNING PLAN (SLP)**

COURSE NAME		CODE	COURSE GROUP	CREDITS (SKS)		SEMESTER	Date of Preparation
Web Mapping		CM234995	Geoinformatics	T=2	P=-	Elective Course	-
<b>AUTHORIZATION</b>		<b>SLP Developer</b>		<b>Course Group Coordinator</b>		<b>Head of Study Program</b>	
		Agung Budi Cahyono, S.T., M.Sc., DEA.		Agung Budi Cahyono, S.T., M.Sc, DEA		Putra Maulida, ST, MT, Ph.D	
<b>Learning Outcomes (LO)</b>	<b>Expected Learning Outcomes (ELO) that Imposed in the Course</b>						
	ELO-5	Able to design survey and mapping activities using the latest technology in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, and cadastral.					
	ELO-6	Able to identify, formulate, analyze and solve problems in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, and cadastral.					
	<b>Course Learning Outcomes (CLO)</b>						
	CLO-1	Able to explain the meaning of related fundamental concepts with web-GIS					
	CLO-2	Able to build and demonstrate web-GIS application designs by displaying geospatial data					
CLO-3	Able to utilize web-GIS applications and design for online mapping purposes						

		<b>Matrix ELO - CLO</b>					
		CPMK	ELO-5	ELO-6			
		CLO-1	V	V			
		CLO-2	V	V			
		CLO-3	V	V			
<b>Course Description</b>		The Web-Based Geographic Information Systems (WEB-GIS) course is designed to provide a comprehensive understanding of the integration of Geographic Information Systems (GIS) with web technologies. The primary focus of the course is to teach concepts, technologies, and best practices for developing and managing GIS systems that are accessible over the internet. Students will learn how to integrate spatial data, design responsive web user interfaces, and optimize the user experience within a geospatial context.					
<b>Course Materials</b>		1.					
<b>References</b>		<b>Main:</b>					
		1.					
		<b>Additional :</b>					
		-					
<b>Lecturer</b>		1. Agung Budi Cahyono, S.T., M.Sc, DEA					
<b>Prerequisite</b>							
Class/ Week	Lesson Learning Outcome (Sub-CLO)	Evaluation		Forms of Learning, Learning methods, Student Assignments/Task, [ Estimated Time ]		Learning Materials [ References ]	Weight (%)
		Indicators	Criteria and Form	Offline	Online		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1-2	Introduction, definition and evolution and concept of WebGIS		1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [1 x 50'] 2. Discussion [1 x 50']			10
3 - 4	Concepts and basics of WebGIS and WebGIS Architecture		1. Completeness of the material	1. Lecture [2 x 50'] 2. Discussion [1 x 50'] 3. Task [1 x 50']			20

			2. Depth of explanation and effectiveness of communication				
5 - 6	Concept, functions, and types of Geospatial Web Service		1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 50'] 2. Discussion [2 x 50']			10
7	Implementation planning WebGIS visually use Online Map		1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 50'] 2. Discussion, Task [1 x 50'] 3. Response/Exercise [1 x 50']			10
<b>8</b>	<b>Midterm Evaluation / Midterm Exam</b>						<b>50</b>
9	Implementation planning WebGIS visually use Online Map		1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 50'] 2. Discussion, Task [1 x 50'] 3. Response [1 x 50']			20
10 – 11	Concept, use, function and architecture Geoportal		1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 50'] 2. Discussion, Task [1 x 50'] 3. Response/exercise [1 x 50']			10
12 – 13	Enterprise GIS: utilization, technology and application products		1. Completeness of the material 2. Depth of explanation and	1. Lecture [2 x 50'] 2. Discussion, Task [1 x 50'] 3. Response/exercise [1 x 50']			10

			effectiveness of communication				
<b>14 - 15</b>	Web-GIS design in implementing Mobile and Desktop GIS applications		<ol style="list-style-type: none"> <li>1. Completeness of the material</li> <li>2. Depth of explanation and effectiveness of communication</li> </ol>	<ol style="list-style-type: none"> <li>1. Lecture [1 x 50']</li> <li>2. Discussion, Task [1 x 50']</li> </ol>			10
<b>16</b>	<b>Final Semester Evaluation / Final Semester Examination</b>						<b>100</b>