



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

**Document Code**

**SEMESTER LEARNING PLAN (SLP)**

<b>COURSE NAME</b>	<b>CODE</b>	<b>COURSE GROUP</b>	<b>CREDITS (SKS)</b>		<b>SEMESTER</b>	<b>Date of Preparation</b>
Boundary Survey	CM234954	Surveying and Cadastral	<b>T=2</b>	<b>P=-</b>	Elective Course	-
<b>AUTHORIZATION</b>	<b>SLP Developer</b>		<b>Course Group Coordinator</b>		<b>Head of Study Program</b>	
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<b>Learning Outcomes (LO)</b>	<b>Expected Learning Outcomes (ELO) that Imposed in the Course</b>					
	ELO-7	Able to perform spatial data acquisition using modern measurement methods, geospatial data processing, using industry standard software, and making standard designs and analyzes in the fields of geodesy, surveying, hydrography, remote sensing, photogrammetry, and cadastral.				
	ELO-9	Able to plan, perform and evaluate the process of surveying and mapping activities using the latest technology in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, and cadastral.				
	ELO-10	Able to work in inter-disciplinary and inter-cultural teams so they can compete at national and international levels.				
	ELO-11	Able to be responsible to the community and adhere to professional ethics in solving technical problems in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, geographic information systems, and cadastral.				
	<b>Course Learning Outcomes (CLO)</b>					
	CLO-1	Understand and explain the related legal aspects in the determination and affirmation of territorial boundaries.				
	CLO-2	Able to apply Geomatics technology in determining and affirming regional boundaries				
	CLO-3	Able to express their ideas or ideas orally and in writing				
	CLO-4	Able to think critically about the use of geodesic technology for several regional boundary problems based on their understanding of the rules or regulations that apply				

		<b>Matrix ELO - CLO</b>					
		CPMK	ELO-7	ELO-9	ELO-10	ELO-11	
		CLO-1	V				
		CLO-2	V	V			
		CLO-3			V	V	
		CLO-4	V	V			
<b>Course Description</b>	This course aims to introduce the concepts and processes of boundary surveying, involving both land and maritime boundaries. The course will discuss the determination and establishment of boundary lines, as well as the factors that influence them. Students will learn how Geomatics technology can be applied to accurately and effectively determine boundaries, including resolving territorial boundary disputes. Additionally, this course will equip students with the skills to use Geomatics applications and plan field points for the creation of contour maps. The learning process is expected to provide a comprehensive understanding of the importance of mapping and surveying in the context of land management in Indonesia						
<b>Course Materials</b>	1.						
<b>References</b>	<b>Main:</b>						
	1.						
	<b>Additional :</b>						
	-						
<b>Lecturer</b>	1.						
<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	Able to explain the concept and meaning of both land and sea boundaries		1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [1 x 50'] 2. Discussion [1 x 50']			10

2 – 3	Able to explain the concept of confirming regional boundaries on land which involves the stages of its determination		1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 50'] 2. Discussion [1 x 50'] 3. Task [1 x 50']			20
4 – 5	Able to explain the concept of confirming regional boundaries at sea which involves the stages of its determination		1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 50'] 2. Discussion [2 x 50']			10
6 – 7	Able to explain the factors that influence maritime boundary delimitation		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 – 10	Able to explain the resolution of regional boundary disputes		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
11 – 12	Able to use Geomatics Applications in determining regional boundaries		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
13	Able to explain the procedures for		1. Completeness of the material	1. Lecture [2 x 50'] 2. Discussion, Task [1 x 50']			10

	plotting detailed field points for map formation and contouring		2. Depth of explanation and effectiveness of communication	3. Response/exercise [1 x 50']			
<b>14 - 15</b>	Able to apply the concept of future challenges for Indonesia		1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [1 x 50'] 2. Discussion, Task [1 x 50']			10
<b>16</b>	<b>Final Semester Evaluation / Final Semester Examination</b>						<b>100</b>