



SEMESTER LEARNING PLAN
DEPARTMENT OF GEOMATICS ENGINEERING
FACULTY OF CIVIL, PLANNING, and GEO ENGINEERING

PROGRAM	UNDERGRADUATE		
COURSE NAME	Boundary Mapping	CODE	RM184957
SEMESTER	Elective Course	CREDITS	3 (three)
LECTURERS	Yuwono (coordinator)		
	M. Taufik ; Yanto Budi Susanto; Husnul Hidayat		
COURSE MATERIALS	1	The concept and understanding of boundaries and regions	
	2	Determination of Land Boundary,	
	3	Affirmation of Land Boundary	
	4	Boundary Determination at Sea	
	5	Maritime Border Disputes and Settlement	
	6	Regional Sea Management Boundaries	
	7	The Application of Geomatics in Determination and Affirmation of Territorial Boundaries, and Challenges going forward for Indonesia.	
EXPECTED LEARNING OUTCOMES THAT IMPOSED IN THE COURSE	D	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.	
	G	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.	
	H	Able to work in inter-disciplinary and inter-cultural teams so they can compete at national and international levels.	
	I	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.	
COURSE LEARNING OUTCOMES	1	Understanding and explaining the legal aspects involved in determining and affirming territorial boundaries.	
	2	Able to apply Geomatics technology in determining and affirming boundaries	
	3	Being able to express their ideas orally and in writing	
	4	Being able to think critically about the use of geodetic technology for some boundary problems based on their understanding of the applicable rules or regulations	
ABILITY CATEGORIES	<i>Cognitive Prosecess</i>		<i>Analyse</i>
	<i>Knowledge Domain</i>		<i>Procedural</i>
	<i>Psychomotor</i>		<i>Conscious control</i>
	<i>Affective</i>		<i>Change of attitude</i>

Class	Lesson learning outcome	Criteria dan Assessment Indicator	Weight	Learning Materials	Learning Experience	Learning Methods	Estimated Time
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Able to explain nad understand the concept of land and sea boundaries	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	5%	Definition of regional boundaries	Lecture	Teacher-centered learning	1 x 50'
				Affirmation of regional boundaries	Discussion	Student-centered	1 x 50'
				Regional boundaries on land	Practice	Problem-based learning	1 x 50'
				Boundary area at sea			

2 - 3	Able to explain the concept of Affirmation of Regional Boundaries in the Land concerning the stages of its determination	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	10%	Document preparation	Lecture	Teacher-centered learning	2 x 50'
				Boundary tracking	Discussion	Student-centered learning	2 x 50'
				Measurement and determination of boundary position	Practice	Problem-based learning	2 x 50'
				Map making			
4 - 5	Able to explain the concept of Affirmation of Boundary in the sea which involves the determination stage	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	15%	Document preparation	Lecture	Teacher-centered learning	2 x 50'
				Determination of the coastline	Discussion	Student-centered	2 x 50'
				Measurement and determination of limits	Practice	Problem-based learning	2 x 50'
				Making a boundary map	Assignment-1		
6 - 7	Able to explain the factors affecting maritime boundary delimitation	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	15%	Political considerations	Lecture	Teacher-centered learning	2 x 50'
				Economic considerations	Discussion	Student-centered learning	2 x 50'
				Geographical considerations	Practice		2 x 50'
8	Mid Semester Evaluation						
9 - 10	Able to explain the resolution of disputes over regional boundaries.	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	15%	The authority of settlement by the governor or Minister	Lecture	Teacher-centered learning	2 x 50'
					Discussion	Student-centered learning	2 x 50'
					Practice	Problem-based learning	2 x 50'
'11 - 12	Able to use Geomatics applications in regional boundary determination.	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	15%	Positioning method	Lecture	Teacher-centered learning	2 x 50'
				Coordinate system	Discussion	Student-centered learning	2 x 50'
				Projection used	Practice	Problem-based learning	2 x 50'
				Transformation	Exercise		
13	Able to explain the procedure of field detail point plotting for map formation and contour creation	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	15%	The detail point is taken for mapping purposes in the form of buildings, roads, channels, boundaries, electricity poles, telephone poles, trees and others	Lecture	Teacher-centered learning	1 x 50'
				Retrieval based on user requirements	Discussion	Student-centered learning	1 x 50'

				Pay attention to the scale of the map that is planned to be made	Practice	Problem-based learning	1 x 50'
					Assignment-3		
14 - 15	Able to apply the concept of future challenges for Indonesia.	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	10%	Looking for a deal	Lecture	Teacher-centered learning	2 x 50'
				Management of regional boundaries	Discussion	Student-centered learning	2 x 50'
				Border socialization	Practice	Problem-based learning	2 x 50'
					Exercise		
16	Final Semester Evaluation						
			100%				