

	UNIVERSITAS PENDIDIKAN INDONESIA FACULTY OF SOCIAL SCIENCES EDUCATION
	STUDY PROGRAMME IN GEOGRAPHIC INFORMATION SCIENCE PROGRAMME: UNDERGRADUATE
	SEMESTER LEARNING PLAN (RPS)

COURSE IDENTITY

Course Name	Course Code	Credits	Workload (45 hrs x credits)	Course Group	Semester	Prerequisite Course
Land and Sea Boundary Demarcation	SA512	2	90 hrs	Elective	5	GNSS Survey and Hydrographic Survey

Prepared by Course Lecturer	Reviewed by Study Programme QA Team	Approved by Head of Study Programme
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COURSE DESCRIPTION AND GRADUATE LEARNING OUTCOMES (CPL)

Course Description	Boundary demarcation is a consequence for sovereign states in delineating their territorial areas in order to enforce the rights and obligations of the inhabitants thereof. This course is divided into two parts. The first part covers land boundary demarcation, which refers to the principles of international law governing borders and the application of concepts such as the uti possidetis juris principle, widely applied in newly independent states following World War II to establish land boundaries with neighbouring countries. The second part addresses maritime boundary demarcation, which refers fully to the United Nations Convention on the Law of the Sea (UNCLOS) 1982, covering the concept of maritime boundary delineation between states, the characteristics of maritime zones, methods of delimitation, and the rights and obligations of each coastal state or archipelagic state in managing its waters.
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Graduate Learning Outcomes (CPL) Assigned to This Course

N o.	CPL Code	Graduate Learning Outcomes (CPL) Assigned to This Course
1	S3	To contribute to the improvement of the quality of social, national, and civic life and civilisation based on Pancasila.
2	S7	To comply with the law and maintain discipline in social and civic life.
3	S8	To internalise academic values, norms, and ethics.
4	S9	To demonstrate a sense of responsibility for work in the field of expertise independently.
5	P2	To be capable of mastering the basic concepts of regional mapping surveys, as well

		as the foundations and applications of mathematics and statistics in the field of regional mapping surveys.
6	KU1	To be capable of applying logical, critical, systematic, and innovative thinking within the context of the development or implementation of knowledge and technology, while observing and applying humanistic values in accordance with the field of expertise.
7	KU2	To be capable of demonstrating independent, high-quality, and measurable performance; of examining the implications of the development or implementation of science and technology that observes and applies humanistic values in accordance with the field of expertise, based on academic rules, procedures, and ethics, in order to produce solutions, ideas, designs, or artistic critiques.
8	KK1	To be capable of designing, developing, producing, utilising, controlling, and evaluating analytical models and spatial information theory based on science and technology.
9	KK2	To be capable of planning regional mapping survey activities; acquiring, validating, processing, and analysing mapping survey data; and visualising geosphere information based on science and technology.

Course Learning Outcomes (CPMK)

N o.	Course Learning Outcomes (CPMK)
1	Students are able to understand the theory, history, and framework of land and sea boundary demarcation, and to implement them in addressing boundary demarcation problems in accordance with applicable rules and laws. (S3, S7, S8, P2, KU1, KK1)
2	Students are able to understand the role of geospatial technology in land and sea boundary demarcation, and to implement it in addressing boundary demarcation problems. (S7, S9, P2, KU1, KK2)
3	Students are able to understand problems relating to land and sea boundary demarcation in several boundary case studies and to examine the existing problems more deeply, particularly with regard to the role of geospatial technology. (S7, S8, S9, P2, KU2, KK2)

Sub-CPMK (use operational verbs)

N o.	CPMK Reference	Sub-CPMK Formulation
1	CPMK 1	Students are able to understand the objectives, scope, and procedures of the course, including explanations of assignments, examinations to be sat, types of questions, and sources.
2	CPMK 1	To explain the history of boundary demarcation and the theories of boundary demarcation.
3	CPMK 2	To explain the boundary demarcation process and the boundary demarcation framework.
4	CPMK 2	To explain the role of geospatial technology in boundary disputes.
5	CPMK 3	To explain the relationship between boundary demarcation and disputes.
6	CPMK 3	To explain boundary demarcation in Indonesia.
7	CPMK 2	To explain boundary demarcation using the cartometric method.
8	CPMK 1	To explain the history of the development of maritime boundaries.
9	CPMK 1	To explain the concept of maritime boundary demarcation based on UNCLOS 1982.

10	CPMK 2	To explain the characteristics of maritime zones within Indonesian waters.
11	CPMK 2	To explain the characteristics of maritime zones within Indonesia's jurisdiction zones.
12	CPMK 2	To explain the method of maritime boundary delimitation in accordance with the provisions of UNCLOS 1982, both graphically and through geodetic calculation.
13	CPMK 3	To explain the basepoint survey process and the potential for maritime boundary conflicts in Indonesia.
14	CPMK 1	To explain the concept of maritime management in Indonesia.

Course Materials

N o.	Course Materials
1	History of maritime boundary demarcation
2	Concept of maritime boundary demarcation
3	Characteristics of maritime zones (1)
4	Characteristics of maritime zones (2)
5	Methods of maritime boundary delimitation
6	Basepoint survey
7	Introduction to Marine Cadastre
8	Legal framework for land boundary demarcation under international law
9	Land boundary demarcation
10	Functions and theories of borders
11	Implementation of the national boundary concept in Indonesia
12	Calculation methods
13	Cases of land boundary disputes in Indonesia
14	The role of national/regional boundaries in development

Demonstrable Learning Outcomes at the End of the Course	Maps and documents resulting from the analysis of boundary conflicts.
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Learning Strategy	✓ Case Method Team-based Project Other
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General Description of Learning Steps (100–150 words)	Learning is carried out through a combination of material presentation, in-class discussion, and individual and group assignments. The material is delivered in accordance with the target Sub-CPMK and is realised through the course materials with per-session discussions, beginning with an explanation of the basic concepts of boundary demarcation, the methodology of boundary demarcation, and case studies in the form of boundary conflicts involving states. Individual assignments include: • Analysis of the application of boundary demarcation concepts in Indonesia. • Accurate calculation of a designated boundary using either graphical methods or geodetic calculations, to be presented in map form.
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- Simulation of geodetic line calculations for boundary demarcation on an ellipsoidal surface for a relatively large area.

Group assignments include:

- Analysis of potential conflicts and conflicts that have already occurred among countries that have ratified UNCLOS 1982, presented in a written report.
- Analysis of potential boundary conflicts between Indonesia and neighbouring countries, presented in a written report.

References

1. Nichols, Susan E. Tidal Boundary Delimitation, Technical Report 103, Department of Surveying Engineering, Univ. of New Brunswick.
2. Poerbandono, & Djunarsjah, E. (2005). Survei Hidrografi. In (R.Herlina, Ed.) (Cetakan Pe). Bandung, Indonesia: PT. Refika Aditama.
3. IHO. (2020). A Manual on Technical Aspects of The United Nations Convention on The Law Of The SEA – 1982 (TALOS) (6th ed., Issue 377). International Hydrographic Organization.
4. Djalal, H. (2010). Djuanda Declaration in Historical Perspective. National and International Law Harmonisation Forum on the Implementation of the 1982 UN Law of the Sea Convention and the Demarcation of Indonesia's Territorial Sea Boundaries.
5. Schofield, C., & Arsana, I. M. A. (2009). Closing the loop: Indonesia's revised archipelagic baselines system. Australian Journal of Maritime and Ocean Affairs, 1(2), 57–62.
6. Priyanto et al. 2016. Technical Guidelines for Zoning Plan Mapping of Coastal Areas and Small Islands at the Provincial Level. Directorate of Marine Spatial Planning, Coastal Areas, and Small Islands, Directorate General of Marine Affairs and Small Islands, Ministry of Marine Affairs and Fisheries.
7. Jones, Stephen Bar. 1945. Boundary-making: A Handbook for Statesmen, Treaty Editors and Boundary Commissioners.

LEARNING PLAN

Week	Sub-CPMK	Sub-CPMK Achievement Indicators	Course Materials	Assessment Form (test/non-test)	Assessment Weight (%)	Synchronous (face-to-face and virtual)	Asynchronous (individual and group assignments)	Duration (hrs)	Reference No.	Access Time
1	Students are able to understand the objectives, scope, and procedures of the course, including explanations of assignments, examinations, types of questions, and sources.	Students possess a course guideline to serve as a checklist of what needs to be prepared for the course.	Course objectives, scope, and procedures; assignment and examination guidelines; types of questions and sources.	Participatory	4	Face-to-face		2	2, 7	
2	To explain the history of boundary demarcation and the theories of boundary demarcation.	Students understand the complete history of boundary demarcation, from early developments to its implementation in Indonesia, elaborating it with the development of concepts and technology in land boundary demarcation.	History and development of boundary demarcation; theories of boundary demarcation; application in Indonesia.	Participatory	4	Face-to-face		2	7	
3	To explain the boundary demarcation process and the boundary demarcation framework.	Students understand the stages of the boundary demarcation process in accordance with applicable technical guidelines, and understand what actions are permissible and impermissible during the land boundary demarcation process.	Boundary demarcation process; boundary demarcation framework; technical guidelines.	Participatory	4	Face-to-face		2	7	

[illegible]

9	To explain the history of the development of maritime boundaries.	Students are able to explain the history of the development of maritime law from the classical era to the modern age, including Indonesia's role in the development of international maritime law known as the United Nations Conventions on The Law of The Sea (UNCLOS).	History of maritime law development; Indonesia's role in UNCLOS.	Participatory	4	Face-to-face		2	2, 3, 4	
10	To explain the concept of maritime boundary demarcation based on UNCLOS 1982.	Students are able to explain the maritime boundary demarcation concepts contained in the third UNCLOS, including the concept of baselines, base points, and other supporting concepts.	Maritime boundary demarcation concepts under UNCLOS; baselines; base points.	Participatory	4	Face-to-face	Individual Assignment	2	1, 2, 3	
11	To explain the characteristics of maritime zones within Indonesian waters.	Students are able to explain the characteristics of Indonesian waters, namely the Territorial Sea, Internal Waters, and Archipelagic Waters, as well as the interrelationship among the three zones in terms of the rights and obligations of the coastal state or archipelagic state within those areas.	Characteristics of Territorial Sea, Internal Waters, and Archipelagic Waters; rights and obligations.	Participatory	4	Face-to-face		2	2, 3, 4, 5	
12	To explain the characteristics of maritime zones within Indonesia's jurisdiction zones.	Students are able to explain the characteristics of Indonesia's jurisdiction zones, namely the Contiguous Zone,	Characteristics of Contiguous Zone, EEZ, and Continental Shelf; rights and obligations; relationship with the high seas.	Participatory	4	Face-to-face		2	2, 3, 4, 5	

STUDENT STUDY TIME (WORKLOAD)

Category	Activity	Synchronous	Student Preparation	Total (hrs)
Learning	Lectures/Tutorials	14 x 1.5 hrs = 21 hrs	14 x 0.5 hrs = 7 hrs	28
	Project-based Learning	8 x 2 hrs = 16 hrs	8 x 0.5 hrs = 4 hrs	20
	Discussion (case-based learning)	4 x 1 hr = 8 hrs	8 x 0.5 hrs = 4 hrs	8
	SUBTOTAL			56
Assessment	Participation during learning	14 x 0.5 hrs = 7 hrs	-	7
	Project work	8 x 1 hr = 8 hrs	-	8
	Assignments	-	6 x 1.5 hrs = 9 hrs	9
	Quizzes	6 x 0.5 hrs = 3 hrs	-	6
	Formative			2
	Summative			2
	SUBTOTAL			34
TOTAL				90
Credits (SKS)				2
Conformity with Credit Hours	CONFORMS			

CPMK ASSESSMENT CRITERIA

No.	CPMK	Weight	Minimum Achievement Criteria	Assessment Criteria
1	Students are able to understand the theory, history, and framework of land and sea boundary demarcation, and to implement them in addressing boundary demarcation problems in accordance with applicable rules and laws.	20	0% of the total	Students obtain a minimum score of 0 (on a scale of 100).
2	Students are able to understand the role of geospatial technology in land and sea boundary demarcation, and to implement it in addressing boundary demarcation problems.	20	0% of the total	Students obtain a minimum score of 0 (on a scale of 100).
3	Students are able to understand problems relating to land and sea boundary demarcation in several boundary case studies and to	20	0% of the total	Students obtain a minimum score of 0 (on a scale of 100).

	examine the existing problems more deeply, particularly with regard to the role of geospatial technology.			
4	MID-SEMESTER EXAMINATION (UTS) + FINAL SEMESTER EXAMINATION (UAS)	40		
	TOTAL	100		

COLLABORATIVE ASSIGNMENT PLAN

Course Name	Course Code	Credits	Workload (45 hrs x credits)	Course Group	Semester	Prerequisite Course
Land and Sea Boundary Demarcation	SA512	2	90	Elective	5	GNSS Survey and Hydrographic Survey

Course Lecturers: 1. Asri Ria Affriani, S.T., M.Eng. 2. Andika Permadi Putra, S.T., M.T.

Assignment Title	Maritime Boundary Conflicts Between Countries
Learning Method	Case Method
Duration (minutes)	
Assessment Weight	
Sub-CPMK	To explain the method of maritime boundary delimitation in accordance with the provisions of UNCLOS 1982, both graphically and through geodetic calculation.
Assignment Description	Students are tasked with analysing maritime boundary conflicts between countries that have ratified UNCLOS 1982, by elaborating on: the background of the conflict between the relevant states; the maritime boundary delimitation method used (equidistance or proportionality); and the solutions arrived at by the conflicting states. Students must be able to analyse the problem from their own perspective using the material covered in the course, and to formulate recommendations regarding the issue. The recommendations are then compared with the recommendations already put forward by the countries involved in the conflict.
Assignment Steps	1. Visit the website https://www.state.gov/limits-in-the-seas/ 2. Identify cases involving adjacent or opposite states; analyse the boundary delimitation carried out by the two or more states concerned. 3. This is a group assignment (maximum 5 members). 4. Use software commonly used to visualise maritime boundaries. 5. The final output shall take the form of a document comprising: a. Summary of the boundary issue b. Visualisation of maritime boundaries c. Analysis of the implementation of existing solutions (distance, area, etc.) d. Recommendations 6. Upload the assignment at https://bit.ly/tugas2PBDL
Final Output	A report document containing the results of the analysis and recommendations regarding maritime boundary conflicts between countries.

Indicators, Criteria, and Assessment Weight	1. Selection of maritime boundary conflict case between countries (5%) 2. Description of the problem in the selected maritime boundary conflict case (15%) 3. Analysis of the problem (20%) 4. Recommended resolution method (30%) 5. Comparison of the proposed solution with the solutions already implemented by the countries involved in the conflict (30%)
Implementation Schedule	Activity: Preparation of the maritime boundary conflict analysis document Duration: 14 days
Other Notes	-

REFERENCES

1. Nichols, Susan E. Tidal Boundary Delimitation, Technical Report 103, Department of Surveying Engineering, Univ. of New Brunswick.
2. Poerbandono, & Djunarsjah, E. (2005). Survei Hidrografi. In (R.Herlina, Ed.) (Cetakan Pe). Bandung, Indonesia: PT. Refika Aditama.
3. IHO. (2020). A Manual on Technical Aspects of The United Nations Convention on The Law Of The SEA – 1982 (TALOS) (6th ed., Issue 377). International Hydrographic Organization.
4. Djalal, H. (2010). Djuanda Declaration in Historical Perspective. National and International Law Harmonisation Forum on the Implementation of the 1982 UN Law of the Sea Convention and the Demarcation of Indonesia's Territorial Sea Boundaries.