

	UNIVERSITAS PENDIDIKAN INDONESIA SEMESTER LEARNING PLAN (RPS)
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COURSE IDENTITY

Course Name	Course Code	Credits	Workload	Course Group	Semester	Prerequisite Course	Date of Issue
THEMATIC CARTOGRAPHY	SA421	3	135	Study Programme Skills Development (PKPS)	3	Cartography	2025-09-08 07:55:55

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	Thematic Cartography is a study programme skills development course.
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No.	Graduate Learning Outcomes (CPL) Assigned to This Course
1	To master the basic concepts of regional mapping surveys, the fundamentals and applications of mathematics, and statistics in the field of regional mapping surveys.
2	To master the theoretical concepts of cartography and thematic mapping.
3	To be capable of designing, developing, producing, utilising, controlling, and evaluating analytical models and spatial information theories based on science and technology.
4	To be capable of planning, interpreting, analysing, classifying, extracting, validating, and visualising data and information derived from science and technology-based geographic information systems.

No.	Course Learning Outcomes (CPMK)
1	Students are able to understand the concepts of thematic cartography.
2	Students are able to create thematic map symbol designs.
3	Students are able to perform quality control.

No.	CPMK	Sub-CPMK
1	CPMK - 1	Students understand the concepts of basic and thematic geospatial information.
2	CPMK - 2	Students are able to create various types of thematic maps.
3	CPMK - 3	Students are able to create interactive maps and atlases.

No.	Course Materials
1	Syllabus and course regulations, objectives, scope, procedures, practicum model, and practicum outcomes.
2	Concepts of base maps and thematic maps; functions of thematic maps.
3	Types of thematic maps; presentation of thematic map data.
4	SNI standards for RBI map presentation; SNI standards for spatial planning maps; decree on village map presentation; decree on forestry map presentation.
5	Creating symbol designs; technical quality control (symbolisation principles, visual variables).
6	Creating symbol designs; technical quality control (symbolisation principles, visual variables).
7	Statistics and data classification.
8	Choropleth maps and dasymetric maps.
9	Isoline maps.
10	Diagram maps and cartograms.
11	Flow maps.
12	Creative maps.

Demonstrable Learning Outcomes at the End of the Course	Diagram thematic map; Choropleth thematic map; Dasymetric thematic map; Chorometric thematic map; Isoline thematic map.
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Learning Strategy	Case Method ✓
Learning Steps	Thematic cartography learning involves a series of structured steps to produce informative maps and effective data visualisations. The process begins with a thorough understanding of the theme or topic to be visualised, followed by the collection of relevant data from reliable sources. After data has been gathered, the next step is the selection of appropriate cartographic techniques, including the choice of map projection, scale, and thematic symbols. The data is then processed and visualised into map format with attention to cartographic design principles such as visual balance, information hierarchy, and legibility. The final product is a thematic map capable of presenting information clearly and accurately, as well as supporting analysis and decision-making.

No.	References
1	Ormeling, F. (2015). Kartografi Tematik (Aspek Sosial dan Ekonomi). Yogyakarta: Penerbit Ombak.
2	SKKNI for Mid-level Cartography Expert and SKKNI for Senior Cartography Analyst Technician.
3	Kraak, M. J., & Ormeling, F. (2007). Kartografi: Visualisasi Data Geospasial. UGM Press.
4	Peterson, G. N. (2009). GIS Cartography: A Guide to Effective Map Design. Taylor & Francis Group.
5	Cartographic Design Theory: Typography.

LEARNING PLAN

We ek	Sub-CPMK	Sub-CPMK Achievement Indicators	Course Materials	Assess ment Form (te st/non-te st)	As ses sm ent We igh t (%)	Synchron ous (face-t o-face and virtual)	Asynchro nous (individual and group assignme nts)	Dur atio n	Ref ere nce No.	Acces s Time
1	Students understand basic and thematic geospatial information.	Students are able to understand the objectives, scope, procedures, assignments, examinations, question types, and reference sources.	Syllabus and course regulations, objectives, scope, procedures, practicum model and outcomes.	Participat ory	5	Face-to-fac e	Students directed to search for references related to thematic cartography.	3 hrs	1,2, 3,4, 5	03-09- 2025 13:00
2	Same as above.	Students are able to understand the basic concepts of base maps and thematic maps.	Concepts of base maps and thematic maps; functions of thematic maps.	Participat ory	5	Face-to-fac e	Individual assignment	3 hrs	1	10-09- 2025 13:00
3	Same as above.	Students are able to understand basic concepts of base and thematic maps.	Types of thematic maps; presentation of thematic map data.	Participat ory	5	Face-to-fac e	Individual assignment	3 hrs	1,2	17-09- 2025 13:00
4	Same as above.	Students are able to understand cartographic standards (regulations).	SNI for RBI maps; SNI for spatial planning maps; village map decree; forestry map decree.	Observat ion	5	Face-to-fac e	Individual assignment	3 hrs	2,3	24-09- 2025 13:00
5	Same as above.	Students are able to understand and create symbol designs, typography, colour, and quality control.	Creating symbol designs; technical quality control (symbolisation principles, visual variables).	Participat ory	5	Face-to-fac e	Individual assignment	3 hrs	2,4, 5	01-10- 2025 13:00

6	Same as above.	Same as above.	Creating symbol designs; technical quality control (symbolisation principles, visual variables).	Participatory	5	Face-to-face	Individual assignment	3 hrs	3	08-10-2025 13:00
7	Same as above.	Students are able to explain statistical methods and data classification for thematic mapping.	Statistics and data classification.	Observation	5	Face-to-face	Individual assignment	3 hrs	3	15-10-2025 13:00
8	MID-SEMESTER EXAMINATION (UTS)				15					22-10-2025 13:00
9	Students are able to create various thematic maps.	Students are able to process quantitative data and present it in choropleth and dasymetric maps.	Choropleth maps and dasymetric maps.	Portfolio	5	Practising choropleth and dasymetric map creation.	Compiling thematic map analysis report (choropleth and dasymetric).	3 hrs	2,5	29-10-2025 13:00
10	Same as above.	Students are able to visualise point data and determine interpolation methods for isoline maps.	Isoline maps.	Portfolio	5	Practising isoline map creation.	Compiling isoline map analysis report.	3 hrs	3,4	05-11-2025 13:00
11	Same as above.	Students are able to determine quantitative data processing methods for diagram maps and cartograms.	Diagram maps and cartograms.	Portfolio	5	Practising diagram map and cartogram creation.	Compiling diagram map and cartogram analysis report.	3 hrs	3,4	12-11-2025 13:00
12	Same as above.	Students are able to manage data for flow map presentation.	Flow maps.	Portfolio	5	Practising flow map creation.	Compiling flow map analysis report.	3 hrs	3,4	19-11-2025 13:00
13	Students are able to create interactive maps and atlases.	Students are able to determine data and methods for creative maps.	Creative maps.	Performance	5	Practising creative map creation.	Continuing creative map work.	3 hrs	1,3,4	26-11-2025 13:00
14	Same as above.	Students are able to create creative thematic maps in groups.	Creative maps.	Performance	5	Practising creative map creation.	Continuing creative map work.	3 hrs	1,2,3	03-12-2025 13:00

15	Same as above.	Students are able to create interactive thematic maps using various software.	Creative maps.	Performance	5	Practising creative map creation.	Continuing creative map work.	3 hrs	1,3,4	10-12-2025 13:00
16	FINAL SEMESTER EXAMINATION (UAS)				15					17-12-2025 13:00

COLLABORATIVE TASK DESIGN

Task Title	Digital Thematic Map
Learning Method	Case Method
Assessment Weight	50
Sub-CPMK	Students are able to create various types of thematic maps.
Task Description	The Thematic Cartography assignment aims to develop students' ability to create accurate and informative thematic maps. Students are expected to select a specific theme, collect and analyse relevant data, and apply cartographic principles throughout. The assignment encompasses stages from selecting the appropriate map projection and scale, to using effective symbols to represent data. Students will also be required to critically evaluate the resulting map design, considering data visualisation and user comprehension. The final product is a thematic map that functions both as a visualisation tool and as a medium for in-depth analysis.

Assignment Steps

No.	Step
1	Selection of Map Theme: Determine the topic or phenomenon to be visualised. Themes may include demographic, climate, economic, or other data.
2	Data Collection: Gather relevant data from reliable sources. Ensure data is complete, accurate, and up-to-date.
3	Determination of Purpose and Audience: Establish the purpose and intended users of the map.
4	Selection of Map Projection: Choose a projection appropriate to the purpose and scale of the map.
5	Data Processing: Process the collected data into a visualisable format, involving classification, simplification, or grouping.
6	Symbol and Colour Design: Determine symbols, colours, and patterns to represent data clearly.
7	Map Layout Composition: Arrange map elements (legend, title, scale, north arrow) in a balanced layout.
8	Map Creation: Use cartographic software to visualise data according to the planned design.
9	Evaluation and Revision: Review the map for accuracy and effectiveness; revise as necessary.
10	Publication or Distribution: Publish or distribute the completed map in digital or print form.

Deliverables

No.	Output
1	Diagram thematic map
2	Choropleth thematic map
3	Dasymetric thematic map
4	Dot thematic map
5	Isoline thematic map
6	Flow map
7	Creative map

Assessment Indicators, Criteria, and Weights

No.	Indicator & Criteria	Weight
1	Theme and Objective Alignment – Criteria: Theme and objective are clear, relevant, and consistent with the data presented.	20%
2	Data Quality and Processing – Criteria: Data sourced from reliable references, processed correctly, and strongly supports the theme.	20%
3	Projection and Scale Selection – Criteria: The chosen projection minimises distortion; scale is appropriate for the geographic extent.	15%
4	Symbol and Colour Design – Criteria: Symbols and colours are consistent, informative, and enhance data legibility.	15%
5	Layout and Map Composition – Criteria: Layout is balanced, easy to navigate, and supports user comprehension.	15%
6	Legibility and Aesthetics – Criteria: Text, symbols, and colours are legible, with a professional visual presentation.	10%
7	Evaluation and Revision – Criteria: Revisions effectively address weaknesses or errors in the map.	5%
8	Presentation and Documentation – Criteria: Documentation is complete and clear; presentation is effective and suited to the audience.	10%

Implementation Schedule	Digital thematic map practicum: November – December
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