

	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
REMOTE SENSING FOR PHYSICAL GEOGRAPHY	SA422	3	135	Study Programme Skills Development (PKPS)	3	—	2025-09-02 21:01:39

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	Remote Sensing for Physical Geography is a study programme skills development course.
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No.	Graduate Learning Outcomes (CPL) Assigned to This Course
1	To master the theoretical concepts of geography, the application of geospatial technology for solving geospheric problems, and to develop models and methods for solving geospheric problems.
2	To master the theoretical concepts of Geographic Information Systems, spatial database concepts, and spatial modelling concepts.
3	To be capable of planning, interpreting, analysing, classifying, extracting, validating, and visualising data and information derived from science and technology-based remote sensing.
4	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.

No.	Code	Course Learning Outcomes (CPMK)
1	S9	To demonstrate a sense of responsibility for work in the field of expertise independently.
2	P4	To master the theoretical concepts of Remote Sensing, covering both active and passive remote sensing systems, visual and digital image interpretation concepts, and the application of remote sensing for geospheric information.
3	KU6	To be capable of maintaining and developing professional networks with supervisors, colleagues, and peers both within and outside the institution.
4	KK2	To be capable of planning regional mapping survey activities; acquiring, validating, processing, and analysing mapping survey data; and visualising geospheric information based on science and technology.
5	P4	To master the theoretical concepts of Remote Sensing, covering both active and passive remote sensing systems, visual and digital image interpretation, and the application of remote sensing for geospheric information.

No.	CPMK	Sub-CPMK
1	CPMK - 2	To understand the syllabus and course format.
2	CPMK - 2	To understand geological theory, rock types, and geological structures, and to create a geological map from remote sensing data.
3	CPMK - 2	To understand geomorphological theory and forms, and to create a geomorphological map from remote sensing data.
4	CPMK - 2	To understand the concepts of hydrology and water bodies, and to create hydrology and water body maps from remote sensing data.
5	CPMK - 2	To understand soil geography, soil types according to USDA and PPT Bogor, and to create soil geography maps from remote sensing data.
6	CPMK - 2	To understand the interpretation of remote sensing imagery for geology, geomorphology, hydrology, and soil geography studies.
7	CPMK - 4	To validate field data from completed maps.
8	CPMK - 1	To present report findings in the form of a formal presentation.

No.	Course Materials
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1	Course introduction.
2	Geology material, rock types, and geological structures.
3	Module: Creating a geological map from remote sensing data.
4	Geomorphology material and geomorphological forms.
5	Module: Creating a geomorphological map from remote sensing data.
6	Hydrology material and water bodies.
7	Module: Creating hydrology and water body maps from remote sensing data.
8	Soil geography material, soil types according to USDA and PPT Bogor.
9	Module: Creating soil geography and soil type maps from remote sensing data.
10	Remote sensing image interpretation for geology, geomorphology, hydrology, and soil geography studies.
11	Practicum: Remote sensing image interpretation for geology, geomorphology, hydrology, and soil geography studies.
12	Field data validation material from completed maps.
13	Practicum: Field data validation from completed maps.
14	Physical Geography Remote Sensing Field Study.
15	Field data processing.
16	Presentation of report findings in the form of a formal presentation.

Demonstrable Learning Outcomes at the End of the Course	Students are able to create maps related to geophysical content.
Learning Strategy	Team-based Project ✓
Learning Steps	To master the theoretical concepts of geography. To develop models and methods for solving geospheric problems. To apply logical, critical, systematic, and innovative thinking within the context of developing or implementing science and technology based on humanistic values. To make sound decisions based on the results of data and information analysis. To manage learning independently. To design, develop, produce, utilise, control, and evaluate spatial information analytical models and theories based on science and technology.

No.	References
1	Somantri, L., & Sugandi, D. (2018). Penginderaan Jauh Aplikasi Kajian Geomorfologi, Oseanografi, Geologi, Hidrologi, dan Penggunaan Lahan. UPI Press.

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	Understand syllabus and course format.	Course introduction and syllabus.	Course introduction.	Participatory	5	Face-to-face, discussion, Q&A; on the definition and scope of remote sensing.	Independent study based on provided references and other relevant learning resources.	4 hrs	1	04-09-2025 12:00
2	Understand geological theory, rock types, geological structures, and create geological maps from remote sensing data.	Students can identify rock types (igneous, sedimentary, metamorphic). Students can explain basic geological structures (folds, faults, etc.).	Geology material, rock types, and geological structures.	Multiple Choice	5	Face-to-face, discussion, Q&A.;	Independent study.	4 hrs	1	11-09-2025 13:00
3	Understand geomorphological theory and forms, and create geomorphological maps from remote sensing data.	Students can interpret imagery to differentiate rock units. Students can compile a basic geological map from remote sensing data.	Module: Creating geological maps from remote sensing data.	Participatory	5	Face-to-face, discussion, Q&A.;	Independent study.	4 hrs	1	18-09-2025 13:00
4	Understand geomorphological theory and forms, and create geomorphological maps from remote sensing data.	Students can explain geomorphological concepts. Students can identify major landforms from imagery.	Geomorphology material and geomorphological forms.	Multiple Choice	5	Face-to-face, discussion, Q&A.;	Independent study.	4 hrs	1	25-09-2025 13:00

5	Understand hydrology and water bodies, and create hydrology and water body maps from remote sensing data.	Students can extract landform information from imagery. Students can create a geomorphological map from remote sensing data.	Module: Creating geomorphological maps from remote sensing data.	Participatory	5	Face-to-face, discussion, Q&A.;	Independent study.	4 hrs	1	02-10-2025 13:00
6	Understand hydrology and water bodies, and create hydrology and water body maps from remote sensing data.	Students can explain basic hydrological concepts (water cycle, watershed, rivers). Students can identify water bodies on imagery.	Hydrology material and water bodies.	Multiple Choice	5	Face-to-face, discussion, Q&A.;	Independent study.	4 hrs	1	09-10-2025 13:00
7	Understand hydrology and water bodies, and create hydrology and water body maps from remote sensing data.	Students can delineate rivers, lakes, or reservoirs from imagery. Students can compile a basic hydrological map from remote sensing data.	Module: Creating hydrology and water body maps from remote sensing data.	Participatory	5	Face-to-face, discussion, Q&A.;	Independent study.	4 hrs	1	16-10-2025 13:00
8	MID-SEMESTER EXAMINATION (UTS)				20					23-10-2025 13:00

Note: Workload data, CPMK assessment criteria, and collaborative task design are not yet available in the source document.