



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

PROGRAM	UNDERGRADUATE		
COURSE NAME	Introduction to Geospatial Information	CODE	RW184901
SEMESTER	I (satu)	CREDITS	2 (two)
LECTURERS	Bangun Muljo Sukojo [coord]		
	Teguh Hariyanto		
COURSE MATERIALS	1	Definition, History and Development of Geospatial Information.	
	2	Geospatial Information Component.	
	3	Geospatial, Geospatial Information Scope.	
	4	Utilization of Geospatial Information in Various Fields.	
EXPECTED LEARNING OUTCOMES THAT IMPOSED IN THE COURSE	E	Able to apply information & communication technology and the latest technological developments in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, geographic information systems, and cadastral.	
	H	Able to work in inter-disciplinary and inter-cultural teams so they can compete at national and international levels.	
COURSE LEARNING OUTCOMES	1	Able to understand the Definition of Geospatial Information, Use of Geospatial Information, Geospatial Information Capability, History and Early Development of Geospatial Information, Development of Geospatial Information in Indonesia, Implementation of Geospatial Information in Indonesia, Geospatial Information Network Nodes, Network Node Types, Network Governance , Walidata and Owner, Integrated Geospatial Information Architecture, Integration of the Node, Development of OpenSource-based IG Dissemination Technology, Palapa Architecture, Ina-Geoportal Development, Problems and Challenges.	
	2	Able to understand Geospatial Information Components: Hardware, Software, Data, Spatial Data, Non-Spatial Data (Attributes), Human, GIS Method, Consistency.	
	3	Able to understand the scope of Geospatial Information: Geospatial Information Processes, Data Input, Data Manipulation, Data Management, Query and Visualization Analysis Spatial Data Sources, Georeferenced Infrastructure Georeference Data, Geodetic Projection Systems, Remote Sensing, Topographic, GIS, WebGIS, Systems, Database Structural Sources , Geospatial Information Services (Ina-Geoportal), Ina-Geoportal network node structure, Geospatial Information Services Structure in Ina-Geoportal, International Standards (ISO), International Standards (ISO) Geospatial Information, Types of International Standards (ISO) Information Geospatial.	
	4	Able to understand Geospatial Information Utilization in Various Areas: Land Use Management, Natural Resource Inventory, Natural Disaster Areas, Geospatial Information for Regional and Municipal Planning, Geospatial Information for Archeology, WebGIS Application, Web-based GIS for Housing and Settlement Areas, WebGIS To Support Regional Spatial Planning, WebGIS for Main Data on City Development, WebGIS for Archaeologists, Making Archaeological Geospatial Information, WebGIS Attribute Data Processing, WebGIS Based Tourism, Analysis of Web GIS Tourism Making, Analysis of Results for Defining Map Configurations, WebGIS-based Marine.	
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
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(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Able to understand the Definition of Geospatial Information, Use of Geospatial Information, Geospatial Information Capability, History and Early Development of Geospatial Information, Development of Geospatial Information in Indonesia, Organization of Geospatial Information in Indonesia	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	5	Explain the Definition of Geospatial Information, Use of Geospatial Information, Geospatial Information Capability Explain the History and Early Development of Geospatial Information, Explaining the Development of Geospatial Information in Indonesia, Organizing Geospatial Information in Indonesia,	Kuliah	Teacher-centered learning	1 x 50'
					Kuliah	Teacher-centered learning	1 x 50'
					Lectures	Teacher-centered learning	1 x 50'
2	Able to understand Geospatial Information Network Nodes, Network Node Types, Data Node Governance, Walidata and Owners, Integrated Geospatial Information Architecture, Integration of Node Operations	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	5	Explain Geospatial Information Network Nodes, Network Node Types, Data Node Network Governance Explain Walidata and Owners, Integrated Geospatial Information Architecture, Explain the Integration of the Implementation of Nodes Examples of actual case studies	Lectures	Teacher-centered learning	1 x 50'
					Lectures	Teacher-centered learning	1 x 50'
					Lectures	Teacher-centered learning	1 x 50'
					Discussion	Student-centered learning	1 x 50'
3	Able to understand the Development of IG Dissemination Technology based on Open Source, Palapa Architecture, Ina-Geoportal Development, Problems and Challenges	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	10	Explain the Development of IG Dissemination Technology Explaining about Open Source-based IG, Palapa Architecture, Explaining about Ina-Geoportal Development, Explain the problems and challenges.	Lectures	Teacher-centered learning	1 x 50'
					Lectures	Teacher-centered learning	1 x 50'
					Lectures	Teacher-centered learning	1 x 50'
					Lectures	Teacher-centered learning	1 x 50'
					Practice and assignment	Student-centered learning	1 x 50'
4 -5	Able to understand Geospatial Information Components: Hardware (Hardware), Software (Software),	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	10	Explain the Geospatial Information Component Explain Geospatial Information Hardware Explain about Geospatial Information Software	Lectures	Teacher-centered learning	2 x 50'
					Lectures	Teacher-centered learning	2 x 50'
					Lectures	Problem-based learning	2 x 50'
					Practice and assignment	Student-centered learning	1 x 50'
6	Able to understand Geospatial Information Components: Data, Spatial Data, Non Spatial Data	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	10	Explain the Geospatial Information Component: Data Explain the Components of Geospatial Information: Spatial Data	Lectures	Teacher-centered learning	1 x 50'
					Lectures	Teacher-centered learning	1 x 50'

	(Attributes)			Explain the Geospatial Information Component: Non Spatial Data	Lectures	Teacher-centered learning	1 x 50'
					Practice and assignment	Student-centered learning	1 x 50'
7	Able to understand Geospatial Information Components: Human, GIS Method, Consistency.	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	10	Explain the Geospatial Information Component: Humans	Lectures	Teacher-centered learning	1 x 50'
				Explain Geospatial Information Components: GIS Method, Consistency.	Lectures	Teacher-centered learning	1 x 50'
				Explain the Geospatial Information Component: GIS Method	Lectures	Teacher-centered learning	1 x 50'
					Project assignment	Student-centered learning	
8				MID SEMESTER EXAM			
9 -10	Able to understand Geospatial Information Scope: Geospatial Information Process, Data Input, Data Manipulation, Data Management, Query and Visualization Analysis	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	15	Explain the Scope of Geospatial Information: Geospatial Information Processes, Data Input	Lectures	Teacher-centered learning	2 x 50'
				Explain the Scope of Geospatial Information Data Manipulation: Data Management, Queries and Visualization Analysis	Lectures	Teacher-centered learning	2 x 50'
					Discussion	Problem-based learning	2 x 50'
					Practice and assignment	Student-centered learning	2 x 50'
11	Able to understand Spatial Data Sources, Geo-structure Infrastructure Georeference Data, Geodesy Projection Systems, Remote Sensing, Toponymy, GIS, WebGIS, Systems, Database Structures,	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	10	Explain the Spatial Data Sources, Geodesy Infrastructure Georeference Data, Geodesy Projection Systems, Remote Sensing, Toponymy	Lectures	Teacher-centered learning	2 x 50'
				Explain GIS, WebGIS, Systems, Database Structures	Lectures	Teacher-centered learning	2 x 50'
					Discussion	Problem-based learning	2 x 60'
					Practice and assignment	Student-centered learning	
12 - 13	Able to understand Geospatial Information Services (Ina-Geoportal), Ina-Geoportal network node structure, Geospatial Information Services Structure in Ina-Geoportal, International Standards (ISO), International Standards (ISO) Geospatial Information, Types of	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	15	Explain Geospatial Information Services (Ina-Geoportal), Ina-Geoportal network node structure, Geospatial Information Services Structure in Ina-Geoportal	Lectures	Teacher-centered learning	1 x 50'
				Explain International Standards (ISO), International Standards (ISO) Geospatial Information, Types of International Standards (ISO) Geospatial Information	Discussion	Student-centered learning	1 x 50'
					Assignment	Problem-based learning	1 x 60'

14	Able to understand Geospatial Information Utilization in Various Fields: Land Use Management, Natural Resource Inventory, Natural Disaster Areas, Geospatial Information for Regional and Municipal Planning, Geospatial Information for Archeology, WebGIS Application, Web-based GIS for Housing and Settlement Areas, WebGIS To Support Regional Spatial	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	5	Information in Various Fields: Land Use Management, Natural Resource	Lectures	Teacher-centered learning	1 x 50'
				Explain the Utilization of Geospatial Information in Various Fields: WebGIS Application, Web-based GIS for Housing and Settlement Areas, WebGIS To Support Regional Spatial Planning, WebGIS For Main Data on Urban Development, WebGIS for Archaeologists,	Lectures	Teacher-centered learning	1 x 50'
					Discussion	Student-centered learning	1 x 50'
					Assignment	Student-centered learning	1 x 50'
15	Able to understand the Utilization of Geospatial Information in Data Processing of WebGIS Attributes, WebGIS-Based Tourism, Analysis of GIS Web-Making Tourism, Analysis of the Results of Defining Map Configuration, Marine-based WebGIS	Material completeness, depth of explanation, effectiveness of communication, accuracy of attitude	5	Explaining the Utilization of Geospatial Information in WebGIS Attribute Data Processing,	Lectures	Teacher-centered learning	1 x 50'
				Analyzing the Utilization of Geospatial Information in WebGIS-Based Tourism Data Processing, Analysis of Making GIS Tourism Web, Analysis of the Results of Defining Map Configuration, Marine-based WebGIS	Lectures	Teacher-centered learning	1 x 50'
					Practice	Student-centered learning	1 x 50'
					Assignment	Student-centered learning	1 x 50'
16				FINAL SEMESTER EXAM			
TOTAL			100				