



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

PROGRAM	UNDERGRADUATE		
COURSE NAME	Introduction to Geographic Information System	CODE	RM184521
SEMESTER	V (five)	CREDITS	3 (three)
LECTURERS	Tegeh Harivanto Agung Budi Cahyono, Udiana Wahyu Deviantari, Cherie Bhakti Pribadi		
COURSE MATERIALS	1 Definition of GIS, GIS Component 2 Data format, Spatial referencing 3 Converting data, spatial and non-spatial data structures 4 Spatial database, attribute database in GIS format		
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 E Able to apply information & communication technology and the latest technological developments in the fields of geodesy, surveying, hydrographic, remote F Able to compile scientific reports and provide solutions based on leadership, creativity and communication skills as well as being responsible for the work done.		
COURSE LEARNING OUTCOMES	1 Students are able to explain the concepts and definitions of Geographic Information Systems (GIS) 2 Students are able to identify data on Geographic Information Systems in the processing of spatial data 3 Students are able to compile spatial databases in GIS format 4 Students are able to represent spatial data in GIS format		
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
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Able to explain the concepts and definitions of GIS, the storage system of spatial data	Accuracy to explain the definition of GIS, the storage system of spatial data in GIS format, and components of GIS	10,00%	Concepts and definitions of GIS	- Discussion - Presentation of Result	Lecture Question & Answer Task	1 x 50' 1 x 50' 1 x 50'
2-3	Able to explain the storage system of spatial data and data components in GIS	of spatial data and data components in GIS	10,00%	Data components	- Discussion - Presentation of Result	Lecture Question & Answer Task	1 x 50' 1 x 50' 1 x 50'
4-5	Able to explain data format, data sources and their quality in GIS	Data format, data sources and their quality in GIS	10,00%	Data format in GIS	- Discussion - Presentation of Result	Lecture Question & Answer Task	1 x 50' 1 x 50' 1 x 50'
6-7	Able to explain data integration related to the appropriate reference used in	Accuracy to explain data integration related to the appropriate reference used in GIS	10,00%	Data integration	- Discussion - Presentation of Result	Lecture Question & Answer Task	1 x 50' 1 x 50' 1 x 50'
8	Mid-Semester Evaluation						
9-10	Able to explain the differences of each in GIS format	Accuracy to explain the differences of each data and the way to process data digitization in GIS format	10,00%	Data Features	- Discussion - Essay - Presentation of Results	Lecture Question & Answer Task (Writing Essay)	1 x 50' 1 x 50' 1 x 50'
11-12	Able to explain about data conversion and methods used in data conversion	Accuracy to explain about data conversion and methods used in data conversion	15,00%	Data conversion, methods of data conversion	- Discussion - Presentation of Results	Lecture Question & Answer Task	1 x 50' 1 x 50' 1 x 50'
13	Able to explain the process of data conversion in the spatial data processing of GIS	Accuracy to explain the process of data conversion in the spatial data processing of GIS	10,00%	Process of data conversion	- Discussion - Quiz	Lecture Question & Answer Task	1 x 50' 1 x 50' 1 x 50'
14	Able to explain the process of spatial data topologies and data structures in GIS	Accuracy to explain the possibility of errors while creating data topologies and structures	10,00%	Process topologies, data structures	- Discussion - Essay - Presentation of Results	Lecture Question & Answer Task (Writing Essay)	1 x 50' 1 x 50' 1 x 50'
15	Able to design and arrange database attributes in GIS	Accuracy to explain the compiling database attributes in GIS	15,00%	Database attributes	- Discussion - Essay - Presentation of Results	Lecture Question & Answer Task	1 x 50' 1 x 50' 1 x 50'
16	Final Semester Evaluation						