

DETERMINATION OF CREDITS COURSES
Geographic Information System

Course	CLO	CLO 1.1	Learning Methode	Study Material	Study Hours		Sks/Credit
					T	P	
Geographic Information System	Students are able to explain the concept of soil formation and its components.	Able to explain sequentially the meaning of GIS, and the benefits of GIS according to the field of geographic information systems handled correctly	Face to Face, Structure Assignment, Independent Study	Definition and Benefits of GIS	6	0	3
		Able to explain in detail the basic components of GIS	Face to Face, Structure Assignment, Independent Study	GIS components Input and output	6	0	
	Able to explain the processes and factors of soil formation	Able to manage databases and geographic database	Face to Face, Structure Assignment, Independent Study, Practicum	Database Geodatabase	11	7	
		Able to explain its characteristics remote sensing, characteristics PJ products, and photogrammetric elements.	Face to Face, Structure Assignment, Independent Study, Practicum	Understanding PJ Characteristics of PJ Image types and channels Basic elements of Interpretation	11	7	
		Able to explain correctly earth coordinate system, projection, and datum in mapping, guided by the Geographic Coordinate System or Projected Coordinate System correctly.	Face to Face, Structure Assignment, Independent Study, Practicum	Earth coordinate system Map Projection Datum Coordinate System	11	7	
		Able to explain georeferencing, references sequentially georeferencing, and Image correction, by practicing the Analog Map correction process and The image uses the corrected features correctly	Face to Face, Structure Assignment, Independent Study, practicum	Image and Map Correction Repair TGA concept Editing and Reshaping Measurement of Area and Distance	11	7	

		Able to explain classifying images based on NDVI, SAVI, LSWI, NDWI, measuring area, distance, and presenting in the form of a mosaic overlapping with different image DNs	Face to Face, Structure Assignment, Independent Study, practicum	Image Classification Image Processing Tophography and DEM TIN Use of DEM	11	7	
		Able to carry out basic analysis GIS, overlay and scoring, and present the results of data analysis attribute and spatial inward spatial and new attributes correctly	Face to Face, Structure Assignment, Independent Study, practicum	Geometric Transformations Data Management Spatial Overlay Mergers and Splits Spatial Statistics Scoring	16	10	
				Total Hours	83	45	3
	sks/credit Theory	$(\text{Total Theory Time} \times 1 \text{ sks}) / (2.83 \times 16)$		SKS Theory		~	2
	sks/credit Practicum/field work	$(\text{Total Practicum Time} \times 1 \text{ sks}) / (2.83 \times 10)$		SKS Practicum		~	1

Notes: T = Theory P = Practicum/Field Work

1 SKS/Credit = 170 minutes = 2,83 hours

1 Semester = 16 Face Times

The study time required for students to achieve CLO at each learning stage is determined by the lecturer/lecturer team based on their experience in teaching the course.

Total Course SKS/Credits = Theory + Practicum/field work