	SEMESTER LEARNING PLAN DEPARTMENT OF GEOMATICS ENGINEERING FACULTY OF CIVIL, PLANNING, and GEO ENGINEERING		
PROGRAM	**UNDERGRADUATE**		
COURSE NAME	**Cartography**	**CODE**	RM184101
SEMESTER	**I (one)**	**CREDITS**	3 (three)
LECTURERS	**Yuwono [coord]** **Danar Guruh Pratomo, Hepi Hapsari Handayani, Ira Mutiara Anjasmara, Akbar Kurniawan**		
COURSE MATERIALS	1	Cartographic Concepts	
	2	Map classification	
	3	Simple map making procedure	
	4	Use of scale and its calculation	
	5	Plotting coordinates from available data	
	6	Simple map layout design	
	7	Making contour from available data	
	8	Map making from a set of available data (secondary data)	
EXPECTED LEARNING OUTCOMES THAT IMPOSED IN THE COURSE	B	Able to design survey and mapping activities using the latest technology in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, and cadastral.	
	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	Able to explain the concept of cartography, including the meaning of the map, the position of a place and the purpose of cartography	
	2	Able to distinguish type of maps which circulate in the community	
	3	Able to explain map making procedures in a simple way	
	4	Able to apply the use of scale and its calculations	
	5	Able to plot coordinates from available data	
	6	Able to design a simple map layout	
	7	Able to make contours from available data	
	8	Able to make a map from a set of available data (secondary data)	
ABILITY CATEGORIES	*Cognitive Prosecess*	*Analyse*	
	Knowledge Domain	*Procedural*	
	Psychomotor	*Conscious control*	
	Affective	*Change of attitude*	

Class	Lesson learning outcome	Criteria dan Assessment Indicator	Weight	Learning Materials	Learning Experience	Learning Methods	Estimated Time
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1 - 2	Able to explain the concept of cartography, including the meaning of the map, the position of a place and the purpose of cartography.	Completeness of material, depth of explanation, effectiveness of communication, accuracy of attitude	10%	Explanation of Syllabus and Class Rules	Lecture	Teacher-centered learning	2 x 50'
				Lectures, Introduction to Cartography	Discussion	Student-centered learning	2 x 50'
				Definition of Cartography	Practice	Problem-based learning	2 x 50'
				Definition of position	Task		
3 - 4	Able to distinguish various type of maps which circulate in the community	Completeness of material, depth of explanation, effectiveness of communication, accuracy of attitude	20%	Definition of map	Lecture	Teacher-centered learning	2 x 50'
				Map classification	Discussion	Student-centered learning	2 x 50'
					Practice	Problem-based learning	2 x 50'
					Task	Task-1: Search various maps	
5 - 6	Able to explain map making procedures in a simple way	Completeness of material, depth of explanation, effectiveness of communication, accuracy of attitude	10%	Map making procedure: Field orientation Data retrieval	Lecture	Teacher-centered learning	2 x 50'
					Discussion	Student-centered learning	2 x 50'
					Practice	Problem-based learning	2 x 50'

				Data processing			
				Presentation of data			
7	Able to apply the use of scale and its calculations	Completeness of material, depth of explanation, effectiveness of communication, accuracy of attitude	10%	Scale on the map	Lecture	Teacher-centered learning	1 x 50'
				Several things related to scale on the map	Discussion	Student-centered learning	1 x 50'
					Practice	Problem-based learning	1 x 50'
8				Mid-Semester Evaluation			
9 - 10	Able to plot coordinates from available data	Completeness of material, depth of explanation, effectiveness of communication, accuracy of attitude	20%	Definition of coordinate systems	Lecture	Teacher-centered learning	2 x 50'
				Several coordinate systems in maps	Discussion	Student-centered learning	2 x 50'
				Calculation of coordinate	Practice	Problem-based learning	2 x 50'
				Determination of paper size related to map scale	Task	Task-2 : Plotting	
11 - 12	Able to design a simple map layout	Completeness of material, depth of explanation, effectiveness of communication, accuracy of attitude	10%	Create a layout design on the map	Lecture	Teacher-centered learning	2 x 50'
				Paper size symmetry	Discussion	Student-centered learning	2 x 50'
				Legend and symbol location	Practice	Problem-based learning	2 x 50'
				Grid Making			
13 - 14	Able to make contours from available data	Completeness of material, depth of explanation, effectiveness of communication, accuracy of attitude	10%	Complete the map with contours	Lecture	Teacher-centered learning	2 x 50'
				Contour making	Discussion	Student-centered learning	2 x 50'
					Practice	Problem-based learning	2 x 50'
					Task	Task-3 : Making contour	
15	Able to make a map from a set of available data (secondary data)	Completeness of material, depth of explanation, effectiveness of communication, accuracy of attitude	10%	Making a complete map from secondary data	Lecture	Teacher-centered learning	1 x 50'
					Discussion	Student-centered learning	1 x 50'
					Practice	Problem-based learning	1 x 50'
					Task	Task-4 : Map Finalization	
16				Final Semester Evaluation			