

MODULE HANDBOOK

SURVEYING					
Module/Course Title	Student Workload	Credits	Semester	Frequency	Duration
8720202076	2 CU X 16 X 170'= 90,6618	2 CU 3.18 ECTS	7TH	ONCE YEAR	1 SEMESTER
1	Types of courses LECTURES PRACTICUM	Contact hours (2CU X 1,59 ECTS) X{(50:170')}X 28,51 Workhours= 26,64	Independent Study (2CU X 1,59 ECTS) X{(60:170')}X 28,51 Workhours= 31,96	Structured Study (2CU X 1,59 ECTS) X{(60:170')}X 28,51 Workhours= 31,96	Class size MAX 40 STUDENT
2	Prerequisites for participation (if applicable) -				
3	Program Learning outcomes				
	PLO-3 Able to process, analyze, present geosphere data and information using geospatial technology for geography learning and research				
	PLO-5 Able to demonstrate independent and collaborative performance that produces quality and measurable results				
	PLO-9 Able to apply regional theory for sustainable regional planning and development				
	PLO-11 demonstrate a responsible attitude towards work in their field of expertise independently				
	Course Learning Outcome (CLO)				
	CLO-3				

	Able to process, analyze, present data and information on areas mapped using theodolites for geography learning and research.
	CLO-5 Able to show independent and collaborative performance that produces quality maps
	CLO-9 Able to apply mapping theory in sustainable regional planning and development
	CLO-11 Demonstrate a responsible attitude for planning, measuring, calculating and plotting measurement results
4	Learning materials <ol style="list-style-type: none"> 1. Introduction: introduction to geometry, types of surveys, and maps 2. Measuring and measuring instruments: theodolite, distance measuring device, unit system 3. Knowledge of distances and angles, point positions, understanding of north and azimuth directions, calculation of distance/slope/azimuth/angle with a coordinate system 4. Polygons: intent, closed polygons, open polygons, requirements, measurement methods, calculations 5. Tachimetric method: principles, formulas, approaches, and measurement of height difference with tachimetry 6. Topographic maps: mapping datums, map scales, contour lines, situation mapping 7. Area Calculation
5	Teaching methods <i>Project Base Learning</i>
6	Assessment methods <i>paper test</i>
7	This module/course is used in the following study programme/s as well -
8	Responsibility for module/course Compulsory/ Elective */
9	<ol style="list-style-type: none"> 1. Abidin Hasanuddin Z., 2008. Penentuan posisi dengan GPS dan aplikasinya. Jakarta : Pradnya Paramita 2. Basuki, Slamet. 2006. <i>Ilmu Ukur Tanah</i>. Yogyakarta: Universitas Gadjah Mada Press 3. Heinz, Frick, 1989, <i>Ilmu dan alat ukur tanah</i>, Yogyakarta : Kanisius. 20th.2006 4. Suyono Sastrodarsono, Masayosi Takasahi, 1997, Pengukuran topografi dan teknik pemetaan. Jakarta: Pradnya Paramita. 5. Abidin Hasanuddin Z., 2002. Survey dengan GPS. Jakarta : Pradnya Paramita 6. Petunjuk praktikum Ukur Tanah Pendidikan Geografi 2018