	INSTITUT TEKNOLOGI SEPULUH NOPEMBER **FACULTY OF CIVIL, PLANNING AND GEO ENGINEERING** **DEPARTMENT OF GEOMATICS ENGINEERING** **UNDERGRADUATE STUDY PROGRAM**	**Document Code**

SEMESTER LEARNING PLAN (SLP)

COURSE NAME	**CODE**	**COURSE GROUP**	**CREDITS (SKS)**		**SEMESTER**	**Date of Preparation**
Survey and Mapping Management	CM234423	Geospatial	**T=2**	**P=1**	4	-

AUTHORIZATION	**SLP Developer**	**Course Group Coordinator**	**Head of Study Program**
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Learning Outcomes (LO)		
	Expected Learning Outcomes (ELO) that Imposed in the Course	
	ELO-2	Able to study and utilize science and technology in order to apply it to the areas of expertise in Geodesy and Surveying, Hydrography, Photogrammetry, and Remote Sensing, as well as Geospatial and Land Information, and able to make appropriate decisions from the results of their own work or group work in the form of a final project report or other forms of learning activities whose outcomes are equivalent to the final project through logical, critical, systematic and innovative thinking.
	ELO-3	Able to manage self-learning, and develop a personal lifelong learner to compete at national and international levels, in order to make a real contribution to solving problems by implementing information and communication technology and paying attention to the principles of sustainability, and understanding technology-based entrepreneurship.
	ELO-4	Able to apply mathematics, science, and engineering in the fields of Geodesy and Surveying, Hydrography, Photogrammetry and Remote Sensing also Geographic Information Systems and Cadastral to gain a thorough understanding of the principles of engineering.
	ELO-10	Able to work in inter-disciplinary and inter-cultural teams so they can compete at national and international levels.
	Course Learning Outcomes (CLO)	
	CLO-1	Students have knowledge of the main objectives of project management science.
	CLO-2	Students have knowledge of basic theories and methods of project management.
	CLO-3	Students have experience to do financial calculations in mapping work.

	CLO-4	Students are able to think critically about the use and management of measurements and mapping for planning and some life problems based on their understanding of the principles of the process of managing human resources, tools and costs.
	CLO-5	Students are able to express their ideas or ideas orally and in writing.

Matrix ELO – CLO

CLO	ELO-2	ELO-3	ELO-4	ELO-10
CLO-1	V	V		
CLO-2	V	V	V	
CLO-3	V	V	V	
CLO-4		V	V	V
CLO-5			V	V

Course Description	This lecture will examine the management management of a measurement and mapping work. Collection methods and types of work are discussed in class lectures accompanied by assignments, so that students have experience in making types of work and planning using various mapping methods along with cost estimates based on human resources, equipment and final results of medium and large-scale maps. In addition, it was also discussed about submitting fees, time to obtain and submitting technical proposals in order to participate in job auctions from the government and private sector.
Course Materials	1. Introduction to Mapping Survey Management 2. Legislation and Ethics on Mapping 3. Terrestris and Land Mapping Project Management 4. Project Management Photogrammetry and Remote Sensing Mapping 5. Project Management Hydrographic Survey Mapping 6. Organization of Survey and Mapping Work 7. Quality Control and Assurance of Mapping Survey Work 8. Project Planning, Scheduling and Monitoring 9. TOR/RKS for Surveying and Mapping work 10. Tender Process for Survey and Mapping Work 11. K3 aspects in Survey and Mapping activities
References	**Main:**
	1. A.A. Karaini. Pengantar Manajemen Proyek. 1994. 2. Arief Rahman, Seri Diktat Kuliah Tata Laksana Proyek.1999 3. Manajemen Proyek, Konsep dan Implementasi. Budi Santosa.
	Additional:

	1. Kuliah Manajemen Media, Subhan Afifi. Https://www.slideshare.net/subhanafifi/prinsip-dasar-manajemen. 2. IAMPI. Ikatan Ahli Manajemen Proyek Indonesia. Https://www.iampi.org
Lecturer	1. Akbar Kurniawan S.T., M.T. 2. Khomsin, S.T., M.T. 3. Yanto Budisusanto, S.T., M.Eng
Prerequisite	1. Advanced Terestris Mapping 2. Remote Sensing 3. Geographic Information Systems

Class/ Week	Lesson Learning Outcome (Sub-CLO)	Valuation		Learning Forms, Learning Methods, Student Assignments/Task, [Estimated Time]		Learning Materials [References]	Weight (%)
		Indicators	Criteria	Offline	Online		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Students are able to explain the Concepts and Understanding of Project Management	Accuracy in explaining the Concepts and Understanding of Project Management	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [1 x 50'] 2. Discussion [1 x 50'] 3. Exercise [1 x 50']		Concepts and Understanding of Project Management	5
2 - 3	Students are able to explain Project Management Life Cycle and Legislation and Ethics regarding Mapping	Accuracy in explaining Project Management Life Cycle and Legislation and Ethics regarding Mapping	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 50'] 2. Discussion [2 x 50'] 3. Exercise [2 x 50']		Presidential Decree of the Republic of Indonesia Number 18 of 2000 concerning Guidelines for the Implementation of Procurement of Goods/Services LKPP Regulation Number 7 of 2018 concerning Guidelines for Planning Government Procurement of Goods/Services	10

4	Students are able to explain Organization of Survey and Mapping Work	Accuracy in explaining Organization of Survey and Mapping Work	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [1 x 50'] 2. Discussion [1 x 50'] 3. Exercise [1 x 50']		Organization of Survey and Mapping Work	10
5 - 6	Students are able to explain the process of Terrestrial and Cadastral, Photogrammetry, Remote Sensing / GIS and Hydrographic mapping	Accuracy in explaining the process of Terrestrial and Cadastral, Photogrammetry, Remote Sensing / GIS and Hydrographic mapping	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 50'] 2. Discussion [2 x 50'] 3. Exercise [2 x 50']		Process Stages Terrestrial and Cadastral, Photogrammetry, Remote Sensing, Hydrographic Mapping methods starting from Problem Identification, Methods, Tools, Applications and Results	20
7	Students are able to explain the Safety aspects in Survey and Mapping activities	Accuracy in explaining the Safety aspects in Survey and Mapping activities	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [1 x 50'] 2. Discussion [1 x 50'] 3. Exercise [1 x 50']		Safety aspects in Survey and Mapping activities	10
8	**Midterm Evaluation / Midterm Exam**						**55**
9	Students are able to understand the process of Project Planning	Accuracy in understanding the process of Project Planning	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [1 x 50'] 2. Discussion [1 x 50'] 3. Exercise [1 x 50']		1. Project Planning 2. Review papers / journals some examples of planning with the S curve	10
10 – 11	Students are able to understand the process of	Accuracy in understanding	1. Completeness of the material	1. Lecture [2 x 50'] 2. Discussion [2 x 50']		1. Project Scheduling and Monitoring	15

	schedulling and monitoring a mapping project	the process of schedulling and monitoring a mapping project	2. Depth of explanation and effectiveness of communication	3. Exercise [2 x 50']		2. Implement Gantt Chart, CPM and PERT scheduling methods	
12 – 13	Students are able to create and analyze TOR / RKS for Survey and Mapping work	Accuracy in making and analyzing TOR / RKS for Survey and Mapping work	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 50'] 2. Discussion [2 x 50'] 3. Exercise [2 x 50']		TOR / RKS for Survey and Mapping work	10
14	Students are able to understand the Survey and Mapping Work Tender Process	Accuracy in understanding the Survey and Mapping Work Tender Process	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 50'] 2. Discussion [2 x 50'] 3. Exercise [2 x 50']		Observe and analyze tenders through Electronic Procurement Services (LPSE)	10
15	Students are able to identify Project Management problems	Accuracy in identifying Project Management problems	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 50'] 2. Discussion [2 x 50'] 3. Exercise [2 x 50']		Control and Quality Assurance of Mapping Survey Work	10
16	**Final Semester Evaluation / Final Semester Examination**						**100**