



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

**Document
Code**

SEMESTER LEARNING PLAN (SLP)

COURSE NAME		CODE	COURSE GROUP		CREDITS (SKS)		SEMESTER	Date of Preparation
Disaster Mitigation and Management		CM234996	Geoinformatics		T=1	P=1	Elective Course	-
AUTHORIZATION		SLP Developer		Course Group Coordinator		Head of Study Program		
		Agung Budi Cahyono, S.T., M.Sc., DEA.		Agung Budi Cahyono, S.T., M.Sc., DEA.		Putra Maulida, S.T., M.T., Ph.D.		
Learning Outcomes (LO)	Expected Learning Outcomes (ELO) that Imposed in the Course							
	ELO-5	Able to design survey and mapping activities using the latest technology in the fields of geodesy, surveying, hydrographic, remote sensing, photogrammetry, and cadastral.						
	ELO-6	Able to identify, formulate, analyze and solve problems in the fields of Geodesy and Surveying, Hydrography, Photogrammetry and Remote Sensing, as well as Geospatial and Land Information.						
	Course Learning Outcomes (CLO)							
	CLO-1	Students are able to understand the concept of disaster risk reduction in relation to disaster management in mitigation efforts.						
	CLO-2	Students are able to plan and prepare spatial data appropriately in the context of solving different disaster problems in each region based on the results of analysis of existing information.						
	CLO-3	Students are able to analyze and present (visualization) spatial data in solving disaster problems using appropriate mapping techniques and methods						
			Matrix ELO – CLO					
		CPMK	ELO-5	ELO-6				
		CLO-1	V	V				
		CLO-2		V				
		CLO-3	V	V				

Course Description		This course examines and reviews various aspects of disaster that must be considered with various geospatial data. Reviewing various aspects of disasters such as types of potential hazards, types of vulnerabilities, and types of resilience of an area whose risk level must be assessed jointly and simultaneously, as well as how to reduce the level of risk in an integrated manner, both structurally and non-structurally including before , during and after.					
Course Materials		1. Disaster concept 2. Disaster Risk concept (Hazard - Vulnerability - Capacity) 3. The concept of mitigation and prevention 4. Planning and management stages of disaster risk reduction 5. Review regional plan documents and disaster plan documents 6. Disaster management program					
References		Main:					
		1. Badan Nasional Penanggulangan Bencana (BNPB). (2020). Pedoman Kajian Risiko Bencana. Jakarta: BNPB. 2. Sutanta, H., Rajabifard, A., & Bishop, I. D. (2010). Integrating spatial planning and disaster risk reduction: A new framework for developing countries. Environment and Planning B: Planning and Design, 37(3), 387–403. 3. Chang, N. B. (2010). Environmental Remote Sensing and Systems Analysis. CRC Press. 4. Wuryantoro, T. (2011). Manajemen Bencana dan Penanggulangannya. Yogyakarta: Graha Ilmu.					
		Additional :					
Lecturer		Agung Budi Cahyono, S.T., M.Sc., DEA.					
Prerequisite		-					
Class/ Week	Lesson Learning Outcome (Sub-CLO)	Evaluation		Forms of Learning, Learning methods, Student Assignments/Task, [Estimated Time]		Learning Materials [References]	Weight (%)
		Indicators	Criteria and Form	Offline	Online		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1 – 2	Able to explain the Disaster concept, disaster mitigation and geospasial data	Accuracy in explaining the Disaster concept, disaster mitigation and geospasial data	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 45'] 2. Discussion [2 x 45']		Disaster concept, disaster mitigation and geospasial data	10

3 – 4	Able to explain the disaster Risk concept (Hazard - Vulnerability - Capacity)	Accuracy in explaining the disaster Risk concept (Hazard - Vulnerability - Capacity)	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 45'] 2. Discussion [1 x 45'] 3. Task [1 x 45']		Disaster Risk concept (Hazard - Vulnerability - Capacity)	20
5 – 7	Able to explain the concept of mitigation and prevention	Accuracy in explaining the concept of mitigation and prevention	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 45'] 2. Discussion [2 x 45'] 3. Task [2 x 45']		The concept of mitigation and prevention consists of preparedness, emergency response and disaster management related to recovery before, during and after a disaster.	20
8	Midterm Evaluation / Midterm Exam						50
9 – 11	Able to Analyze the planning and management stages of disaster risk reduction in a disaster case	Accuracy in analyzing the planning and management stages of disaster risk reduction in a disaster case	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 45'] 2. Discussion [2 x 45'] 3. Task [2 x 45']		Analyze the planning and management stages of disaster risk reduction in a disaster case	15
12 – 13	Able to Review regional plan documents and disaster plan documents.	Accuracy in reviewing regional plan documents and disaster plan documents.	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 45'] 2. Discussion [1 x 45'] 3. Task [1 x 45']		Review regional plan documents and disaster plan documents. Including regional regulations regarding disaster documents and land use in RTRW with	15

						the concept of regional disaster risk.	
14 – 15	Able to Analyze a case/disaster management program	Accuracy in analyzing a case/disaster management program	1. Completeness of the material 2. Depth of explanation and effectiveness of communication	1. Lecture [2 x 45'] 2. Discussion [1 x 45'] 3. Task [1 x 45']		Analyze a case/disaster management program and identify the role of the Indonesian state in disaster management	20
16	Final Semester Evaluation / Final Semester Examination						100