A. Lesson Plan and Course Assessment

	Universitas Negeri Surabaya Faculty of Social Sciences and Law Geography Education Department	Document Code

Lesson Plan

COURSE	Code	Cluster	Credits		Semester	Compilation Date
Disaster Geography	8720202034	Geografi Terpadu	T =0,68	P = 1,41	2	5 Agustus 2020

AUTHORIZATION	Lesson Plan Developer	Coordinator	Head of Study Program
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Program Learning Outcome (PLO)	**Program Learning Outcomes (PLO)**	
	PLO-3	Able to process, analyze, present geosphere data and information using geospatial technology for geography learning and research
	PLO-6	Able to make appropriate decisions in the context of solving problems in the field of geography and geography education, based on the results of analysis of information and data.
	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 disaster risk areas for geography learning and research
	CLO-6	Able to make appropriate decisions in the context of solving disaster risk problems based on the results of information and data analysis
	CLO-9	Able to apply disaster risk theory to an area as a basis for sustainable regional planning and development
	CLO-11	Demonstrate a responsible attitude towards the prepared disaster risk analysis
	Lesson Learning Outcome (LLO)	
	LLO-1	Able to process, analyze, present disaster management data (CLO-3, CLO-6, CLO-9)
	LLO-2	Able to process, analyze, present valid sources of disaster information (CLO-3, CLO-6, CLO-11)
	LLO-3	Able to process, analyze, present information on Indonesia's position related to disasters (CLO-3, CLO-6, CLO-9)
	LLO-4	Able to apply disaster hazard theory in an area (CLO-3, CLO-9, CLO-11)
	LLO-5	Able to apply the theory of vulnerability to disasters in an area (CLO-9, CLO-11)
	LLO-6	Able to apply the theory of capacity to deal with disasters in an area (CLO-9, CLO-11)
	LLO-7	Able to apply the theory of disaster risk in an area (CLO-6, CLO-9, CLO-11)

Correlation between PLO/CLO to LLO

	LLO-1	LLO-2	LLO-3	LLO-4	LLO-5	LLO-6	LLO-7
PLO-3/CLO-3	√	√	√	√			
PLO-6/CLO-6	√	√	√				√
PLO-9/CLO-9	√		√	√	√	√	√
PLO-11/CLO-11		√		√	√	√	√

Course Description	Able to identify types of disasters geologically, climatologically and geomorphologically. Able to identify vulnerability to landslides, floods, earthquakes, tsunamis, volcanic eruptions, and droughts which are examples of natural disasters that will threaten the territory of Indonesia at any time. As well as social disasters, social conflicts, such as underdevelopment, mismanagement of social structures, mismanagement of natural resources. Identify the characteristics of hazards, vulnerabilities, capacities and risks in the form of data spatial. Develop disaster mitigation directives in spatial form.
	The study materials cover the entire material that has been taught covering the topics of geomorphology, geology, soil, hydrology, meteorology, climatology, biogeography, demography, human geography, as well as geography technology, especially cartography and remote sensing. The dynamics of physical conditions are a source of potential hazards. For human dynamics, it is an aspect of vulnerability as well as capacity. While the technological aspect is part of the potential for disaster risk reduction.
Learning Materials	Learning materials 1. Disaster management based on applicable laws 2. Official institutions providing disaster data and information 3. Indonesia's geological position 4. Indonesia's climatological position 5. Potential hazards of earthquakes, volcanic eruptions, landslides, floods, droughts, fires, putting money 6. Aspects of human vulnerability include social, cultural, economic 7. Aspects of environmental vulnerability include settlements, sanitation, land use 8. Aspects of human capacity include knowledge, social, economic factors 9. Disaster risk analysis in the form of maps 10. Disaster risk map
References	**Primary**
	1. Agung Mulyo (2004).Pengantar Ilmu Kebumian, Bandung : Pustaka Setia 2. Alik Ismail-Zadeh, J. U. (2014). Extreme Natural Hazards, Disaster Risks and Societal Implications. Cambridge:Cambridge. 3. Coburn and Spence (1994), Disaster Mitigation , United Kingdom : Cambridge Arschitectural 4. Edited by Christopher B. Field, V. B. (2012). Managing the Risks of Extreme Events and Disasters to AdvanceClimate Change Adaptation. Cambridge: Cambridge 5. Edited by Irasema Alcántara-Ayala, A. S. (2014). Geomorphological Hazards and Disaster Prevention. Cambridge: Cambridge

	6. Edited by Jonathan Rougier, S. S. (2013). Risk and Uncertainty Assessment for Natural Hazards. Cambridge: Cambridge 7. Westen, C V., 2007, Geo-information for Disaster Management, Department Earth Systems Analysis International Institute for Geo-Information Science and Earth Observation (ITC)
Lecturer(s)	- Dr. Nugroho Hari Purnomo, M.Si. - Dian Ayu Larasati, S.Pd.,M.Sc.
Prerequisite	-

Week	**Learning Objectives**	**Assessment**		**Learning Activities and Time Allotment**		**Learning Sources**	**Scoring**
		Indicators	**Criteria/Form/ Type**	**Offline**	**Online**		
(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**
1	LLO-1: Able to understand the scope and objectives of eye courses disaster geography course	1.1. Knowing the purpose, scope of discussion, lecture procedures	Criteria: Description rubric	***Cooperative Learning*** Course **[M : 1 (2x50')]** **[M+I : (1+1) x (2X60')]**	Vlearning http://vlearning.unesa.ac.id	Theory: - Destination - Scope References: - Source 1 - Source 2	**5**
2	LLO-2: Able to understand the meaning and scope of the concepts directly related to disasters, such as disasters, vulnerabilities, hazards, risk and disaster mitigation	2.1. Understanding the meaning of disaster 2.2. Explain the concept of vulnerability	Criteria: Performance rubric	***Project Base Learning*** Course *Small Group Discussion* **[M : 2 (2x50')]** **Task 1** **-** Result of disaster risk analysis **[M+I : (2+2) x (2X60')]**	Vlearning http://vlearning.unesa.ac.id	Theory: - Disaster - vulnerability - Dangers and risks References: - Source 2 - Source 3 - Source 4	**5**
3	LLO-3: Able to explain the meaning, scope and objectives of disaster mitigation	3.1 Explaining the meaning of disaster mitigation 3.2 Describing the scope of disaster mitigation 3.3 Explaining the	Criteria: Performance rubric	***Project Base Learning*** Course *Small Group Discussion*	Vlearning http://vlearning.unesa.ac.id	Theory: - Definition of mitigation - Mitigation in the reality of society	**15**

		purpose and nature of disaster mitigation 3.4 Explaining the reasons for the importance of disaster mitigation in the reality of people's lives		**[M : 2 (2x50')]** **Task 2** Disaster mitigation report **[M+I : (2+2) x (2X60')]**		References: - Source 1 - Source 5 - Source 6	
4-5	LLO-4: Able to describe geological position Indonesia, climatological and geomorphological conditions and their implications against potential disasters	4.1. Describe the geological position 4.2 Describing the geological position of the Indonesian archipelago through a map of the meeting between plates 4.3 Describe the most likely disaster impact in Indonesia as a result of geological position 4.4 Describing the reality of the ring of fire for the Indonesian archipelago 4.5 Describe the most likely impact of disasters in Indonesia as a result of climatological and geomorphological conditions	Criteria: Description rubric	***Project Base Learning*** Course **[M : 2 (2x50')]** **Task 3** Regional disaster risk **[M+I : (2+2) x (2X60')]**	Vlearning http://vlearning.unesa.ac.id	Theory: - Geological position - Climatological conditions - Geomorphological conditions References: - Source 2 - Source 3 - Source 4	**10**
6-7	LLO-5: able to analyze earthquake and tsunami disaster	5.1 Explain the meaning of earthquake 5.2 Identifying factors that cause earthquakes	Criteria: Description rubric	***Project Base Learning*** Course **[M : 2 (2x50')]**	Vlearning http://vlearning.unesa.ac.id	Theory: - Earthquake - Tsunami - Disaster-oriented development	**10**

		5.3 Classifying the types of earthquakes 5.4 Identify actions that residents need to take when an earthquake occurs 5.5 Explain the relationship between earthquakes and the probability of a tsunami 5.6 Describing the concept of disaster-oriented development		**Task 4** Create a disaster-oriented development concept **[M+I : (2+2) x (2X60')]**		References: - Source 2 - Source 5 - Source 7	
8	**Mid-Term Exam : Analyzing Core Competencies and Basic Competencies**						
9-10	LLO-6: able to analyze the occurrence of volcanic eruption disasters	6.1 Explain the process of volcanic eruptions 6.2 Analyzing variations in the types of volcanic eruptions 6.3 Describe the characteristics of pre-volcanic symptoms 6.4 Describe the characteristics of post-volcanic symptoms 6.5 Analyzing variations in volcanic material 6.6 Explain the actions that residents need to take when a volcanic eruption occurs 6.7 Describing the zoning of the area	Criteria: Performance rubric	***Project Base Learning*** course **[M : 4 (2x50')]** **Task 5** - Volcanic eruption analysis report **[M+BM : (4+4) x (2X60')]**	Vlearning http://vlearning.unesa.ac.id	Theory: - Volcanic eruption References: - Source 2 - Source 3 - Source 4 - Source 6	**20**

		affected by the eruption through a map					
11-12	LLO-7: capable analyzing the occurrence of floods, droughts and landslides	7.1 Explain the process of occurrence of disasters caused by climatological conditions 7.2 Describe the characteristics of disasters due to climatological conditions 7.3 Identify characteristics of climatological disasters 7.4 Analyzing climatological disasters 7.5 Explain the actions that residents need to take when floods, droughts and landslides occur 7.6 Describing the zoning of areas affected by climatological disasters through maps	Criteria: Performance rubric	***Project Base Learning*** Course *Small Group Discussion* **[M : 3 (2x50')]** **Task 6** Climatological disaster analysis **[M+I : (2+2) x (2X60')]**	Vlearning http://vlearning.unesa.ac.id	Theory: - Climatological conditions - Floods - Drought disaster - Landslide disaster - Disaster impact References: - Source 2 - Source 3 - Source 4 - Source 6	**20**
13	LLO-8: able to identify the dynamics of social disasters	8. 1 Explain the meaning of social disaster 8.2 Identifying the various types of social disasters 8.3 Explain the various factors that cause	Criteria: Performance rubric	***Project Base Learning*** Kuliah *Small Group Discussion* **[M : 1 (2x50')]**	Vlearning http://vlearning.unesa.ac.id	Theory: - Social Disaster References: - Source 2 - Source 7 - Source 9	**5**

		social disasters 8.4 Identify efforts to anticipate social disasters 8.5 Identify various strategic efforts in overcoming the occurrence of social disasters		**Task 7** Report on the results of the analysis of social disaster mitigation strategies **[M+I : (1+1) x (2X60')]**		- Source10	
14	LLO-9: Able to understand Insightful development concept Disaster	9.1 Identifying the meaning and scope of development 9.2 Explaining the importance of development efforts to accommodate disaster potential 9.3 Identify various disaster-based development efforts	Kriteria: Rubrik deskripsi	***Project Base Learning*** Course *Small Group Discussion* **[M : 1 (2x50')]** **Task 8** Report on the results of the analysis of disaster-based development efforts **[M+I : (1+1) x (2X60')]**	Vlearning http://vlearning.unesa.ac.id	Theory: - Disaster-based development References: - Source 3 - Source 6 - Source 8 - Source 10	**5**
15	LLO-10: Able to identify different types of policies the government that associated with countermeasures disaster and develop disaster mitigation directives in spatial form	10.1 Explaining the meaning and purpose of the policy 10.2 Identifying the background for integrating disaster in development policies 10.3 Provide examples of development policies in Indonesia that are directly	Criteria: Description rubric	***Project Base Learning*** Course *Small Group Discussion* **[M : 1 (2x50')]** **Task 9** Spatial mitigation analysis report **[PT+BM : (1+1) x (2X60')]**	Vlearning http://vlearning.unesa.ac.id	Theory: Disaster mitigation in spatial form References: - Source 5 - Source 6 - Source 8 - Source 10	**5**

		related to disaster 10. 4 Provide examples of disaster management policies in several developed countries, such as Japan and the USA 10.5 Prepare disaster mitigation directives in spatial form					
16	**Final-Term Exams**						

B. Calculation of Student Workload

Credit Unit (CU)	ECTS	Meeting Hours	Structured Assignments	Independent Study
2 CU	3,18	1400 minutes	1680 minutes	1680 minutes

APPENDICES

APPENDIX 1 ASSESSMENT RUBRIC

Course Assessment

A. Assessment Rubric

1) Attitudes/Affective Domain

In this domain, the evaluation of student participation in class includes communication skills, discipline and responsibility. The rubrics used are as follows:

Criteria	Score
Communicate effectively, appreciate others opinions; always attend the class on time; always submit the assignment on time; and always participate in the completion of group assignment	85 ≤ SA ≤ 100
Communicate effectively, appreciate others' opinions; 80% of attendance; submit 90% of the assignment; andoften participate in the completion of group assignment.	70 ≤ SA < 85
Communicate ineffectively, appreciate others' opinions; 75% of attendance; submit the 70% of assignment on time; and participate in the completion of group assignment.	55 ≤ SA < 70
Communicate ineffectively, do not appreciate others' opinions; rarely attend the class; rarely submit the assignment; and rarely participate in the completion of group assignment	≤ SA < 55

2) Knowledge/Cognitive Domain

The students' knowledge is assessed through assignments (individual and group) and tests (mid-term and End-term tests).

a. Assignment Rubric

The criteria of assignment according to Assignment Rubrics:

No	Aspects	Max. Score
1	Able to understand the meaning and scope of concepts directly related to disasters, such as disaster, vulnerability, hazard, risk and disaster mitigation (Excellent = 3, Good = 2, Fair = 1)	5
2	Able to explain the meaning, scope and objectives of disaster mitigation (Excellent = 3, Good = 2, Fair = 1)	15
3	Able to describe Indonesia's geological position, climatological and geomorphological conditions and their implications for potential disasters (Excellent = 3, Good = 2, Fair = 1)	10
4	Able to create mapping area polygons (Excellent = 3, Good = 2, Fair = 1)	10
5	Able to analyze the occurrence of volcanic eruption disasters (Excellent = 3, Good = 2, Fair = 1)	20
6	Able to analyze the occurrence of floods, droughts and landslides (Excellent = 3, Good = 2, Fair = 1)	20

7	Able to identify various types of policies government related to tackling disaster and develop disaster mitigation directives in spatial form (Excellent = 3, Good = 2, Fair = 1)	5
8	Able to understand the concept of disaster-oriented development (Excellent = 3, Good = 2, Fair = 1)	5
9	Able to identify various types of policies government related to disaster management and prepare disaster mitigation directives in spatial form (Excellent = 3, Good = 2, Fair = 1)	5

b) Test (mid-term and End-term tests)

The criteria of mid-term and End-term tests in this course are:

1. The ability to give answers correctly according to the key and rubrics;
2. The ability to provide robust argumentation according to theory;
3. The ability to provide systematic explanations; and
4. The ability to apply the essential concepts in a particular situation comprehensively.
5.

B. Universitas Negeri Surabaya's Grading System

University students are considered to be competent and pass if at least get 40% of themaximum End-term grade. The End-term grade (NA) is calculated based on the following weight:

Assessment Components	Percentage
Participation (including attitudes/affective)	20%
Assignment	30%
Mid-term test	20%
End-term test	30%

Scoring Conversion

Scoring Interval (out of 100)	Point	Grade
85 ≤ NA ≤ 100	4.00	A
80 ≤ NA < 85	3.75	A-
75 ≤ NA < 80	3.50	B+
70 ≤ NA < 75	3.00	B
65 ≤ NA < 70	2.75	B-
60 ≤ NA < 65	2.50	C+
55 ≤ NA < 60	2.00	C
40 ≤ NA < 55	1.00	D
0 ≤ NA < 40	0	E