

MODUL DISASTER MITIGATION AND ADAPTATION




MASTER PROGRAM OF ENVIRONMENTAL SCIENCE
SCHOOL OF POSTGRADUATED STUDIES
DIPONEGORO UNIVERSITY

Modul Description:

Modul Name	Disaster Mitigation and Adaptation
Modul level, if applicable	
Code, if applicable	P-CIL-8-206
Subtitles, if any	
Course, if applicable	
Semester(s) in which the Modulis taught	Semester 2
ModulResponsible	Prof Drs. Sudharto Prawata Hadi, MES, Ph.D
Teaching Lecturer	1. Prof Drs. Sudharto Prawata Hadi, MES, Ph.D 2. Prof. Dr. rer. Nat. Heru Susanto, ST, MT
Language	<i>Indonesian and English</i>
Relationship with curriculum	
Type of teaching, hours of contact	<i>Lectures: 1 x 180 minutes x 16 meetings = 48 hours/week Q&A: 1 x 30 minutes x 16 meetings = 8 hours/week Discussion: 1 x 30 minutes x 16 meetings = 8 hours/week Presentation: 1 x 30 minutes x 16 meetings = 8 hours/week Individual assignment: 60 minutes/day = 5 hours/week Total work for 1 semester = 150 hours = 6 ECTS</i>
Workload	<i>(Estimated) workload, divided into contact hours (lectures, exercises, laboratory sessions, etc.) and personal study, including test preparation, specified in hours,¹and overall.</i>
credit points	<i>3 credits / 6 ECTS</i>
Requirements according to the exam regulations	<i>Lecture attendance of at least 75%</i>
Recommended prerequisites	<i>For example, competence in...</i>
Modulethe desired learning objectives/outcomes	Students are able to understand and explain the basic concepts of disaster and are able to understand and explain disaster management. And also students are able to understand and explain disaster management policies.

Fill	This course examines and examines various aspects of disaster, such as types of potential hazards, disaster cycles, disaster early warning, and policies related to disaster management.
Study and exam requirements and forms	<ul style="list-style-type: none"> • <i>Open the book and close the book</i> • <i>Multiple choice, case studies, interviews</i>
Media used	<i>Powerpoint, youtube, website</i>
Read reference	<ul style="list-style-type: none"> ● Bachtiar Erniati, et al (ed), 2021, Knowledge of Disasters and the Environment, Publisher of Our Writing Foundation, Medan ● Ministry of Environment and Forestry. 2016. Set of Regulations on the Environment. ● Khambali, 2016, Disaster Management, ANDI Publisher, Yogyakarta ● Lestari Puji, 2018, Disaster Communication Important Aspects of Disaster Risk Reduction, Publisher PT Kanisius, Yogyakarta ● Musthofa, 2019, Unraveling the Chaos of Environmental Disasters (Reflections on Environmental Journalism and Deep Ecology in Indonesia), UMM Press Publisher and UMM PSLK, Malang

SEMESTER STUDY PLAN							
	Study program: Master of Environmental Science				Faculty: School of Postgraduate		
	Subject:	Disaster mitigation	Code: P-CIL-8-206	Credit:3 (6 ECTS)	smt:2		
Supporting lecturer:	1. Prof. Drs. Sudharto Prawata Hadi, MES, Ph.D 2. Prof. Dr. rer. Nat. Heru Susanto, ST, MT						
Learning Outcomes Subject:	<ul style="list-style-type: none"> • Students are able to understand and explain the basic concepts of disaster • Students are able to understand and explain disaster management • Students are able to understand and explain disaster management policies 						
Short Description of Courses:	This course examines and reviews various aspects of disaster, such as types of potential hazards, disaster cycles, disaster early warning, and policies related to disaster management.						
1	2	3	4	5	6	7	
Week	Final Ability of each learning stage	Study Materials/ Subjects	Learning methods	Workload	Student Learning Experience	Evaluation	
						Criteria & Indicators	Weight (%)
1.	Introduction/ Lecture contract	Lecture Contract and, Presentation of the basic concepts of disaster management	Lectures, questions and answers, and discussions	330min (0.375 ECTS) Consist of: • <i>Lecture:180 minutes</i> • <i>Q&A: 30 minutes</i> • <i>Discussion : 30 minutes</i> • <i>Presentation : 30 minutes</i> <i>Individual tasks: 60 minutes/day (16 weeks)</i>	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> • Presence • Activeness in Discussion • Understanding 	5
2	Students can understand and understand the various types of disasters	An explanation of the different types of disasters and the	Lectures, questions and	330min (0.375 ECTS) Consist of:	Students listen to the lecturer's explanation and	<ul style="list-style-type: none"> • Presence • Activeness in Discussion 	5

		problems associated with each of these disasters	answers, and discussions	<ul style="list-style-type: none"> • <i>Lecture:180 minutes</i> • <i>Q&A: 30 minutes</i> • <i>Discussion : 30 minutes</i> • <i>Presentation : 30 minutes</i> <i>Individual tasks: 60 minutes/day (16 weeks)</i>	answer the lecturer's questions,as well as discuss	<ul style="list-style-type: none"> • Understanding 	
3	Students can understand and understand the cycle of disaster and safety prevention	Exposure to the disaster cycle - phases, Safety culture, prevention	Lectures, questions and answers, and discussions	330min (0.375 ECTS) Consist of: <ul style="list-style-type: none"> • <i>Lecture:180 minutes</i> • <i>Q&A: 30 minutes</i> • <i>Discussion : 30 minutes</i> • <i>Presentation : 30 minutes</i> <i>Individual tasks: 60 minutes/day (16 weeks)</i>	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> • Presence • Activeness in Discussion • Understanding 	5
4	Students can understand and understand about community-based mitigation	Presentation on mitigation and preparedness, community-based DRR, structural and non-structural actions, community roles and responsibilities	Lectures, questions and answers, and discussions	330min (0.375 ECTS) Consist of: <ul style="list-style-type: none"> • <i>Lecture:180 minutes</i> • <i>Q&A: 30 minutes</i> • <i>Discussion : 30 minutes</i> • <i>Presentation : 30 minutes</i> <i>Individual tasks: 60 minutes/day (16 weeks)</i>	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> • Presence • Activeness in Discussion • Understanding 	5

5	Students can understand and understand global trends in dealing with disasters	Study global trends in disasters: urban disasters, pandemics, complex emergencies.	Lectures, questions and answers, and discussions	330min (0.375 ECTS) Consist of: <ul style="list-style-type: none"> • <i>Lecture:180 minutes</i> • <i>Q&A: 30 minutes</i> • <i>Discussion : 30 minutes</i> • <i>Presentation : 30 minutes</i> <i>Individual tasks: 60 minutes/day (16 weeks)</i>	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> • Presence • Activeness in Discussion • Understanding 	5
6	Students can understand and understand the recommendations and prohibitions when a disaster occurs	Presentation on Dos and don'ts during various types of disasters	Lectures, questions and answers, and discussions	330min (0.375 ECTS) Consist of: <ul style="list-style-type: none"> • <i>Lecture:180 minutes</i> • <i>Q&A: 30 minutes</i> • <i>Discussion : 30 minutes</i> • <i>Presentation : 30 minutes</i> <i>Individual tasks: 60 minutes/day (16 weeks)</i>	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> • Presence • Activeness in Discussion • Understanding 	5
7	Students can understand and understand the framework related to disaster management	Presentation on National Initiatives and frameworks related to disaster management	Lectures, questions and answers, and discussions	330min (0.375 ECTS) Consist of: <ul style="list-style-type: none"> • <i>Lecture:180 minutes</i> • <i>Q&A: 30 minutes</i> • <i>Discussion : 30 minutes</i> • <i>Presentation : 30 minutes</i> 	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> • Presence • Activeness in Discussion • Understanding 	5

				<i>Individual tasks: 60 minutes/day (16 weeks)</i>			
8	Students can understand and understand the process and institutional framework related to disaster	Presentation on Process and institutional framework at State and Central Level – National and Country Disasters Management Authority	Lectures, questions and answers, and discussions	330min (0.375 ECTS) Consist of: <ul style="list-style-type: none"> • <i>Lecture:180 minutes</i> • <i>Q&A: 30 minutes</i> • <i>Discussion : 30 minutes</i> • <i>Presentation : 30 minutes</i> <i>Individual tasks: 60 minutes/day (16 weeks)</i>	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> • Presence • Activeness in Discussion • Understanding 	5
9	Students can understand and understand about disaster early warning	Presentation on prediction and early warning systems. The role of information, education, communication, and training, geoinformatics andIT in disaster preparedness	Lectures, questions and answers, and discussions	330min (0.375 ECTS) Consist of: <ul style="list-style-type: none"> • <i>Lecture:180 minutes</i> • <i>Q&A: 30 minutes</i> • <i>Discussion : 30 minutes</i> • <i>Presentation : 30 minutes</i> <i>Individual tasks: 60 minutes/day (16 weeks)</i>	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> • Presence • Activeness in Discussion • Understanding 	5
10	Mid Term Examination	Meeting Material 1- 9	Independent Written Test	330 minutes of processing time or the equivalent of 0.25 ECTS	Students working on UTS questions	Completeness and the truth explanation as well accuracy understanding	10

11.	Students can understand and understand the components of disaster relief	Presentation on disaster relief components	<ul style="list-style-type: none"> Lectures, questions and answers, and discussions 	330min (0.375 ECTS) Consist of: <ul style="list-style-type: none"> Lecture:180 minutes Q&A: 30 minutes Discussion : 30 minutes Presentation : 30 minutes Individual tasks: 60 minutes/day (16 weeks)	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> Presence Activeness in Discussion Understanding 	5
12	Students can understand and understand related to disaster mitigation institutional arrangements	Presentation on Institutional arrangements for mitigation, response and preparedness	Lectures, questions and answers, and discussions	330min (0.375 ECTS) Consist of: <ul style="list-style-type: none"> Lecture:180 minutes Q&A: 30 minutes Discussion : 30 minutes Presentation : 30 minutes Individual tasks: 60 minutes/day (16 weeks)	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> Presence Activeness in Discussion Understanding 	5
13	Students can understand and understand policies related to disaster	Presentation on other related Policies, plans, programs and legislation relevant to/related to disaster management	Lectures, questions and answers, and discussions	330min (0.375 ECTS) Consist of: <ul style="list-style-type: none"> Lecture:180 minutes Q&A: 30 minutes Discussion : 30 minutes Presentation : 30 minutes 	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> Presence Activeness in Discussion Understanding 	5

				<i>Individual tasks: 60 minutes/day (16 weeks)</i>			
14	Students can understand and understand the national disaster management policy	Presentation on National Disaster Management Policy	Lectures, questions and answers, and discussions	330min (0.375 ECTS) Consist of: <ul style="list-style-type: none"> • <i>Lecture:180 minutes</i> • <i>Q&A: 30 minutes</i> • <i>Discussion : 30 minutes</i> • <i>Presentation : 30 minutes</i> <i>Individual tasks: 60 minutes/day (16 weeks)</i>	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> • Presence • Activeness in Discussion • Understanding 	5
15	Students can understand and understand the national disaster management policy	Presentation on National Disaster Management Policy	Lectures, questions and answers, and discussions	330min (0.375 ECTS) Consist of: <ul style="list-style-type: none"> • <i>Lecture:180 minutes</i> • <i>Q&A: 30 minutes</i> • <i>Discussion : 30 minutes</i> • <i>Presentation : 30 minutes</i> <i>Individual tasks: 60 minutes/day (16 weeks)</i>	Students listen to the lecturer's explanation and answer the lecturer's questions, as well as discuss	<ul style="list-style-type: none"> • Presence • Activeness in Discussion • Understanding 	5
16	Final Examination	Meeting Materials 1-15 (resume material)	Written test	330 minutes of processing time or the equivalent of 0.25 ECTS	Students working on UAS questions	Completeness and the truth explanation as well accuracy understanding	20
8.Reference List:		<ol style="list-style-type: none"> 1. Canter, LW 1996. "Environmental Impact Assessment", 2nd Edition. McGraw-Hill, New York. 2. Soemarwotto, O. 2005. Environmental Impact Analysis. Gadjah Mada University Press, Yogyakarta. 					

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| | <ol style="list-style-type: none">3. Suratmo, GF 1998. Environmental Impact Analysis, 8th Edition, Gadjah Mada University Press, Yogyakarta4. Ministry of Environment and Forestry. 2016. Set of Regulations on the Environment. |
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