

MODUL CAPITA SELECT



MASTER PROGRAM OF ENVIRONMENTAL SCIENCE
SCHOOL OF POSTGRADUATED STUDIES
DIPONEGORO UNIVERSITY

Modul Description :

Modul design	Capita Selecta
Modul level, if applicable	
Code, if applicable	P-CIL-8-301
Subtitles, if any	
Course, if applicable	
Semester(s) in which the Modul is taught	3rd semester
Modul responsible*	1. Prof. Sudharto P. Hadi, Ph.D
Teaching Lecturer	2. Prof. Sudharto P. Hadi, Ph.D 3. Prof. Dr. Sri Puryono KS, MP 4. Dr. Ir. Nani Hariastuti, M.Sc 5. Dr. Ary Susatyo Nugroho, S.Sc., M.Sc. 6. Dr. RM. Bagus Irawan, M.Sc 7. Adian Khoironi ST, M.Sc. 8. Sudalma MT 9. Liana M.Pd
Language	<i>Indonesian and English</i>
Relationship with curriculum	Students are able to understand the position of science, scientific studies and scientific perspectives and philosophy of science through lectures and discussions
Type of teaching, hours of contact	<i>Lectures: 1 x 120 minutes x 16 meetings = 32 hours/week Q&A: 1x 20 minutes 16 meetings = 5.3 hours/week Discussion: 1x 20 minutes 16 meetings = 5.3 hours/week Presentation: 1x 20 minutes 16 meetings = 5.3 hours/week Individual assignments: 36 minutes/day = 3 hours/week Total work for 1 semester = 100 hours = 4 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>2 credits / 4 ECTS</i>
Requirements according to the exam regulations	<i>Lecture attendance of at least 75%</i>
Recommended prerequisites	

Modulthe desired learning objectives/outcomes	Students are able to understand environmental capita selecta related to case studies in environmental science.
Fill	The capita selecta course provides additional insight for students to be able to understand the concept of case studies that occur and are related to environmental science.
Study and examexam requirements and forms	<ul style="list-style-type: none"> • <i>Open the book and close the book</i> <i>Multiple choice, case studies, interviews, practicals</i>
Media used	<i>Powerpoint, youtube, website</i>
Reference	<ol style="list-style-type: none"> 1. Manik KES, 2018, Environmental Management, Publisher PT Kencana, Jakarta 2. Marfai Aris, 2019, Introduction to Environmental Ethics and Local Wisdom, UGM Press Publisher, Yogyakarta <p>Wiryono, 2019, Introduction to Environmental Science, UNIB Press Publisher, Bengkulu</p>

*Advanced lecture material conducted by the main supervisor, co-supervisors and students refers to the research topic

SEMESTER STUDY PLAN



Study program: Master of Environmental Science

Faculty: Graduate School

Subject:	Capita Selecta	Code: P-CIL-8-301		Credit:2 (4 ECTS)	smt:3	
Supporting lecturer:	<ol style="list-style-type: none"> 1. Prof. Sudharto P. Hadi, Ph.D 2. Prof. Dr. Sri Puryono KS, MP 3. Dr. Ir. Nani Harihastuti, M. Si 4. Dr. Ary Susatyo Nugroho, S.Si., M.Sc. 5. Dr. RM. Nice Irawan, M.Si 6. Dr. Adian Khoironi ST, M.Sc. 7. Dr. Sudalma MT 8. Dr. liana M.Pd 					
Learning Outcomes Subject:	Students are able to understand the environmental selectivity associated with case studies in environmental science.					
Short Description of Courses:	The capita selecta course provides additional insight for students to be able to understand the concept of case studies that occur and are related to environmental science.					
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	Understand the concept and mechanism of the ecological footprint.	Ecological footprint and climate change, environmental carrying capacity and carrying capacity	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • <i>Lecture = 1x 120 minutes</i> • <i>Q&A = 1 x 20 minutes</i> • <i>Discussion = 1 x 20 minutes</i> • <i>Presentation = 1 x 20 minutes</i> <i>Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)</i>	Lectures, discussions, and questions and answers.	Student attendance and activity.	10
2	Able to take an inventory of local wisdom both modern and traditional to reduce the ecological footprint.	Inventory of local wisdom and modern wisdom in the ecological footprint, calculation of the ecological footprint	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • <i>Lecture = 1x 120 minutes</i> • <i>Q&A = 1 x 20 minutes</i> • <i>Discussion = 1 x 20 minutes</i> • <i>Presentation = 1 x 20 minutes</i> <i>Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)</i>	Lectures, discussions, and questions and answers.	Student attendance and activity.	10
3	Understand the basic concepts of ecoregion-based coastal management.	Ecoregion-based coastal management	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • <i>Lecture = 1x 120 minutes</i> • <i>Q&A = 1 x 20 minutes</i> • <i>Discussion = 1 x 20 minutes</i> • <i>Presentation = 1 x 20 minutes</i> 	Lectures, discussions, and questions and answers.	Student attendance and activity.	5

				<i>Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)</i>			
4	Understanding community development in mangrove management towards a creative economy that is environmentally sound.	Mangrove development based on the active role of the community, development of an environmentally sound economic sector	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • Lecture = 1x 120 minutes • Q&A = 1 x 20 minutes • Discussion = 1 x 20 minutes • Presentation = 1 x 20 minutes <i>Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)</i>	Lectures, discussions, and questions and answers.	Student attendance and activity.	5
5	Understand the prevention and impact of air pollution.	Efforts to prevent air pollution, the impact caused by air pollution	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • Lecture = 1x 120 minutes • Q&A = 1 x 20 minutes • Discussion = 1 x 20 minutes • Presentation = 1 x 20 minutes <i>Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)</i>	Lectures, discussions, and questions and answers.	Student attendance and activity.	5
6	Understanding air pollution control efforts in terms of various aspects.	Control of air pollution from sources, methods and instruments for dealing with air pollution	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • Lecture = 1x 120 minutes • Q&A = 1 x 20 minutes • Discussion = 1 x 20 minutes • Presentation = 1 x 20 	Lectures, discussions, and questions and answers.	Student attendance and activity.	5

				<i>minutes</i> <i>Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)</i>			
7	Understand the concept of watershed and the dynamics of watershed management.	Watersheds, uses, problems, and solutions to watershed pollution	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • <i>Lecture = 1x 120 minutes</i> • <i>Q&A = 1 x 20 minutes</i> • <i>Discussion = 1 x 20 minutes</i> • <i>Presentation = 1 x 20 minutes</i> <i>Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)</i>	Lectures, discussions, and questions and answers.	Student attendance and activity.	10
8	Mid Term Examination	Meeting Material 1-7	Written Test/ UTS Assignment	216 minutes of processing time or the equivalent of 0.25 ECTS	Students working on UTS questions	Completeness and correctness of explanation and accuracy of understanding	5
9	Able to analyze the impact of air pollution from the motor vehicle sector.	Analysis of the impact of air pollution by motorized modes of transportation	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • <i>Lecture = 1x 120 minutes</i> • <i>Q&A = 1 x 20 minutes</i> • <i>Discussion = 1 x 20 minutes</i> • <i>Presentation = 1 x 20 minutes</i> <i>Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)</i>	Lectures, discussions, and questions and answers.	Student attendance and activity.	5

10	Knowing the role and innovation of catalysts to reduce vehicle emissions.	Catalyst innovation in motorized transportation exhaust	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • Lecture = 1x 120 minutes • Q&A = 1 x 20 minutes • Discussion = 1 x 20 minutes • Presentation = 1 x 20 minutes Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)	Lectures, discussions, and questions and answers.	Student attendance and activity.	5
11	Able to analyze the source of microplastic and its potential hazards.	Analysis of microplastic sources and potential hazards	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • Lecture = 1x 120 minutes • Q&A = 1 x 20 minutes • Discussion = 1 x 20 minutes • Presentation = 1 x 20 minutes Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)	Lectures, discussions, and questions and answers.	Student attendance and activity.	5
12	Knowing the characteristics of microplastics and degradation techniques.	Characteristics of microplastics and their degradation techniques	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • Lecture = 1x 120 minutes • Q&A = 1 x 20 minutes • Discussion = 1 x 20 minutes • Presentation = 1 x 20 minutes 	Lectures, discussions, and questions and answers.	Student attendance and activity.	5

				<i>Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)</i>			
13	Understanding pollution from the agricultural sector.	Pollution from the agricultural sector, ammonia, and case studies that occur	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • <i>Lecture = 1x 120 minutes</i> • <i>Q&A = 1 x 20 minutes</i> • <i>Discussion = 1 x 20 minutes</i> • <i>Presentation = 1 x 20 minutes</i> <i>Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)</i>	Lectures, discussions, and questions and answers.	Student attendance and activity.	5
14	Understand solid and liquid waste degradation methods.	Solid and liquid waste degradation methods	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • <i>Lecture = 1x 120 minutes</i> • <i>Q&A = 1 x 20 minutes</i> • <i>Discussion = 1 x 20 minutes</i> • <i>Presentation = 1 x 20 minutes</i> <i>Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)</i>	Lectures, discussions, and questions and answers.	Student attendance and activity.	5
15	Understand the process and impact of solid and liquid waste degradation.	Solid and liquid waste degradation methods	Lectures, discussions, and questions and answers.	216minutes (0.25 ECTS) <ul style="list-style-type: none"> • <i>Lecture = 1x 120 minutes</i> • <i>Q&A = 1 x 20 minutes</i> • <i>Discussion = 1 x 20 minutes</i> • <i>Presentation = 1 x 20</i> 	Lectures, discussions, and questions and answers.	Student attendance and activity.	5

				<i>minutes</i> <i>Individual Tasks (Self Work) = 1 x 36 minutes/day (16 weeks)</i>			
16	Final Examination	Meeting Materials 1-15 (resume material)	Written test	216 minutes of processing time or the equivalent of 0.25 ECTS	Students working on UAS questions	Completeness and correctness of explanation and accuracy of understanding	10
8. Reference List:		<ol style="list-style-type: none"> 1. Manik KES, 2018, Management of The Environmental, Publisher PT Kencana, Jakarta 2. Marfai Aris, 2019, Introduction to Environmental Ethics and Local Wisdom, UGM Press Publisher, Yogyakarta 3. Wiryono, 2019, Introduction to Environmental Science, UNIB Press Publisher, Bengkulu. 					

