Document Code



Universitas Negeri Surabaya Faculty of Mathematics and Natural Sciences Biology Undergraduate Study Program

SEMESTER LEARNING PLAN

Courses		CODE	Course Family		Credit Weight			SEMESTER	Compilation Date	
Natural Reso	urces Conservat	ion	4620102106			T=2	P=0	ECTS=3.18	2	July 17, 2024
AUTHORIZAT	TION		SP Developer		Cours	e Clus	ster C	oordinator	Study Progra	m Coordinator
			Reni Ambarwati, S.Si., M.S	Prof. Dr. Fida Rachma M.Kes.		hmadiarti,		Dr. H. Sunu Kuntjoro, S.Si., M.Si.		
Learning model	Project Based I	_earnir	ng							
Program	PLO study pro	gram	m that is charged to the course							
Learning Outcomes (PLO)	PLO-6		e to apply logical, critical, systematic and innovative thinking in the context of developing or implementing science d/or technology according to their field of expertise.						nting science	
	PLO-7		to work independently and collaboratively, as well as responsibly, in completing various tasks in class, in the atory and in the field.							ass, in the

Program Objectives (PO)

PLO-11

DO 2	Natural Resources management						
PO - 2	Able to apply Natural Resources and Environmental Conservation concepts and technology in Conservation and						
PO - 1	astering the concept of Conservation of Natural Resources and the Environment						

Able to apply transferable skills in biology to develop ecopreneurship (eco-innovation, eco-opportunity, eco-commitment)

PO - 3

Able to apply transferable skills to develop environmental commitment in an effort to realize the character of "Faith, Smart, Independent, Honest, Caring and Tough"

PO - 4

Able to design and carry out research in the field of Natural Resources and Environmental Conservation and able to process, analyze, interpret and document research data

PO - 5

Able to communicate research results on Conservation of Natural Resources and the Environment in the form of scientific articles

PLO-PO Matrix

P.O	PLO-6	PLO-7	PLO-11
PO-1			
PO-2			
PO-3			
PO-4			
PO-5			

PO Matrix at the end of each learning stage (Sub-PO)

P.O		Week														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PO-1																
PO-2																
PO-3																
PO-4																
PO-5																

Short Course Description

This course discusses 1) The scope of conservation which includes: Definition, objectives, benefits and efforts to preserve natural resources and the environment; 2) Environmental ethics which includes: Definition, Paradigm and Principles of Environmental Ethics; 3) Natural resources which include: Definition, types and benefits of natural resources; 4) Local wisdom which includes: Understanding, approaches, challenges and local wisdom in community life in the future; 5) Management and problems of natural resources and the environment which includes: issues, problems and management of natural resources and the environment; 6) Awareness of conservation which includes awareness of the importance of conserving natural resources and the environment, as well as eco campuses and conservation campuses; 7) Regulation of natural resources and the environment. Lecture activities are carried out in the student center with discussions, observations, project assignments, and presentations by developing ecopreneurship characteristics. There are some tasks that are communicated in English.

References

Main :

- 1. Cluras, D. D. and Reganold, J.P. 2010. Natural Resources Conservation Future. Washington: Washington State University.
- 2. Indrawan, Mochamad., Primack, Richard B., Supriatna, Jatna. 2007. Biologi Konservasi . Jakarta : Yayasan Obor Indonesia
- Rachmadiarti, F., Faizah, U., Kuntjoro, S. 2017. Buku Ajar Mahasiswa Konservasi Sumber Daya Alam dan Lingkungan. Surabaya: Unesa University Press.
- Faizah, U., Rachmadiarti, F., Prastiwi, Muji Sri., Kuntjoro, S. 2017. Buku Ajar Konservasi Sumber Daya Alam dan Lingkungan berbasi Problem Based Learning untuk melatih Sadar Konservasi. Surabaya: Airlangga University Press.
- 5. Bicker, A., Sillitoe, P., & Pottier, J. 2004. Development and Local Knowledge (New approaches to issues in natural resources management, conservation and agriculture). New York: Routledge.
- T. Burt & D. Thompson. (2020). Ecology, Biodiversity and Conservation. In T. Burt & D. Thompson (Eds.), Curious about Nature: A Passion for Fieldwork (Ecology, Biodiversity and Conservation, pp. li-Iv). Cambridge: Cambridge University Press.
- Van Dyke, F. 1993. Conservation Biology. Boston: University of Arkansas, Inc.
- 8. Sanggetha, J., Thangadurai, D., Goh, H.C., & Islam, S. 2019. Biodiversity and Conservation (Characterization and Utilization of Plants, Microbes, and Natural Resources for Sustainable Development and Ecosystem Management). Canada: Apple Academic Press. Inc.

Supporters:

Supporting lecturer

Prof. Dr. Fida Rachmadiarti, M.Kes. Reni Ambarwati, S.Si., M.Sc. Dwi Anggorowati Rahayu, S.Si., M.Si. Firas Khaleyla, S.Si., M.Si. Elma Sakinatus Sajidah, S.Si., M.Si., Ph.D. Farah Aisyah Nafidiastri, S.Si., M.Si.

	Final abilities of each learning stage	Ev	aluation	Lear Studer	lp Learning, ning methods, nt Assignments, stimated time]	Learning materials [References	Assessment Weight (%)
	(Sub-PO)	Indicator	Criteria & Form	Offline (offline)	Online (online)	1	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

	T			1	T T	1
1	Proposing creative ideas in solving environmental problems in general	1. Analyzing the background to conservation of natural resources and the environment 2. Describe the meaning, goals and benefits of conservation 3. Describe efforts to conserve natural resources and the environment	Criteria: Student centered/Presentation /Discussion (2x50') Form of Assessment : Participatory Activities	Reference studies, discussions, LKM assignments on Conservation 2 X 50	Material: KSDAL Concept Library: Rachmadiarti, F., Faizah, U., Kuntjoro, S. 2017. Student Textbook on Natural Resources and Environmental Conservation. Surabaya: Unesa University Press. Material: Biodiversity Concepts References: Van Dyke, F. 1993. Conservation Biology. Boston: University of Arkansas, Inc. Material: KSDAL Concept Library: Faizah, U., Rachmadiarti, F., Prastiwi, Muji Sri., Kuntjoro, S. 2017. Textbook on Conservation of Natural Resources and the Environment based on Problem Based Learning to train Conservation Awareness. Surabaya: Airlangga University Press.	5%

2	Propose creative ideas in solving environmental problems in general	Propose written ideas related to natural resource conservation efforts	Criteria: LKM assessment rubric Form of Assessment: Project Results Assessment / Product Assessment	Presentation and discussion 2 x 50	Project based learning	Material: KSDAL Concept Library: Faizah, U., Rachmadiarti, F., Prastiwi, Muji Sri., Kuntjoro, S. 2017. Textbook on Conservation of Natural Resources and the Environment based on Problem Based Learning to train Conservation Awareness. Surabaya: Airlangga University Press. Material: KSDAL Reference: Bicker, A., Sillitoe, P., & Pottier, J. 2004. Development and Local Knowledge (New approaches to issues in natural resources management, conservation and agriculture). New York:	10%
3	Apply environmental ethical principles	1.Explain environmental ethics 2.explain the principles of environmental ethics 3.Write an example of environmental ethics	Criteria: Student centered/Presentation //Discussion Form of Assessment: Participatory Activities	Reference studies, observations, discussions and presentations 2 X 50	Reference studies, observations, discussions and presentations	Routledge.	5%
4	Applying environmental ethical principles in life	Propose written ideas regarding the importance of environmental ethics in the conservation of natural resources	Criteria: attached Form of Assessment : Project Results Assessment / Product Assessment	Reference studies, observations, discussions and presentations 2 X 50	Project based learning	Material: Environmental Ethics References: Rachmadiarti, F., Faizah, U., Kuntjoro, S. 2017. Student Textbook for Natural Resources and Environmental Conservation. Surabaya: Unesa University Press.	7%

5	Develop effective ideas to overcome	1.Explain the meaning of	Criteria: attached	Reference studies,	Reference studies, observations,	Material: SDAL	4%
	natural resource and environmental problems.	natural resources 2.Classify the types of SDA	Form of Assessment : Participatory Activities	observations, discussions and presentations 2 X 50	discussions and presentations	Library: Rachmadiarti, F., Faizah, U., Kuntjoro, S. 2017. Student Textbook on Natural Resources and Environmental Conservation. Surabaya: Unesa University Press.	
6	Develop effective ideas to overcome natural resource and environmental problems	1.Explain the types of natural resources that exist in the environment around students 2.classify the types of natural resources that exist in the environment around students 3.Develop effective ideas to overcome existing natural resource problems	Criteria: attached Form of Assessment : Project Results Assessment / Product Assessment	Reference studies, observations, discussions and presentations 2 X 50	Project based learning	Material: Natural resources and the environment References: Rachmadiarti, F., Faizah, U., Kuntjoro, S. 2017. Student Textbook on Conservation of Natural Resources and the Environment. Surabaya: Unesa University Press.	7%
7	Develop systematic ideas to preserve local community wisdom	1.Explains the definition, approach and challenges of local wisdom 2.Analyzing Indonesian culture and local wisdom that supports conservation	Criteria: attached Form of Assessment : Participatory Activities	Reference studies, observations, discussions and presentations 2 X 50	Reference studies, observations, discussions and presentations	Material: Local Wisdom Reference: Rachmadiarti, F., Faizah, U., Kuntjoro, S. 2017. Student Textbook on Natural Resources and Environmental Conservation. Surabaya: Unesa University Press.	2%
8	UTS	UTS	Criteria: UTS	UTS 2 X 50			0%
9	Develop systematic ideas to preserve local community wisdom	Proposing efforts to increase the role of local wisdom in supporting conservation	Criteria: attached Form of Assessment : Project Results Assessment / Product Assessment	Reference study, practice, discussion and presentation 2 X 50	Project based learning	Material: Local wisdom Reference: Rachmadiarti, F., Faizah, U., Kuntjoro, S. 2017. Student Textbook on Natural Resources and Environmental Conservation. Surabaya: Unesa University Press.	9%

10	Develop effective ideas in accordance with natural resource and environmental management principles	1.describe examples of SDAL problems that occur in society 2.describe examples of SDAL management that occur in the community.	Criteria: attached Form of Assessment: Participatory Activities, Project Results Assessment / Product Assessment	Reference study, practice, discussion and presentation 2 X 50	Reference studies, practice, discussions and presentations	Material: SDAL Library: Faizah, U., Rachmadiarti, F., Prastiwi, Muji Sri., Kuntjoro, S. 2017. Textbook on Conservation of Natural Resources and the Environment based on Problem Based Learning to train Conservation Awareness. Surabaya: Airlangga University Press.	3%
11	Develop ideas for effective natural resource and environmental management in accordance with the principles of natural resource management	Develop ideas for effective natural resource and environmental management in accordance with natural resource management principles	Criteria: attached Form of Assessment : Project Results Assessment / Product Assessment	Reference study, discussion and presentation 2 X 50	Project based learning	Material: SDAL Library: Rachmadiarti, F., Faizah, U., Kuntjoro, S. 2017. Student Textbook on Natural Resources and Environmental Conservation. Surabaya: Unesa University Press.	7%
12	Understand global and local conservation principles.	Explain the principles of global SDAL conservation	Criteria: attached Form of Assessment: Participatory Activities, Project Results Assessment / Product Assessment	Reference study, discussion and presentation 2 X 50		Material: Biological Conservation References: Rachmadiarti, F., Faizah, U., Kuntjoro, S. 2017. Student Textbook on Natural Resources and Environmental Conservation. Surabaya: Unesa University Press.	3%
13		Explaining the eco campus movement and efforts to make it happen	Criteria: attached Form of Assessment : Participatory Activities	Reference study, discussion and presentation 2 X 50		Material: Conservation awareness Reference: Rachmadiarti, F., Faizah, U., Kuntjoro, S. 2017. Student Textbook on Natural Resources and Environmental Conservation. Surabaya: Unesa University Press.	3%

14	Understand the principles of global and local natural resource conservation regulations.	Explain the principles of natural resource conservation globally and locally	Criteria: attached Form of Assessment : Project Results Assessment / Product Assessment	Reference studies, discussions, observations and presentations 2 X 50	Project based learning	Material: Conservation Awareness Literature: Rachmadiarti, F., Faizah, U., Kuntjoro, S. 2017. Student Textbook on Natural Resources and Environmental Conservation. Surabaya: Unesa University Press.	10%
15			Criteria: attached Form of Assessment : Participatory Activities	Reference studies, discussions, observations and presentations 2 X 50	Reference studies, discussions, observations and presentations	Material: Environmental Regulations References: Rachmadiarti, F., Faizah, U., Kuntjoro, S. 2017. Student Textbook on Natural Resources and Environmental Conservation. Surabaya: Unesa University Press.	5%
16			Form of Assessment : Project Results Assessment / Product Assessment	offline 90 minutes			20%

Evaluation Percentage Recap: Project Based Learning

No	Evaluation	Percentage
1.	Participatory Activities	27%
2.	Project Results Assessment / Product Assessment	73%
		100%

Notes

- Learning Outcomes of Study Program Graduates (PLO Study Program) are the abilities possessed by each Study
 Program graduate which are the internalization of attitudes, mastery of knowledge and skills according to the level of their
 study program obtained through the learning process.
- The PLO imposed on courses are several learning outcomes of study program graduates (CPL-Study Program) which are used for the formation/development of a course consisting of aspects of attitude, general skills, special skills and knowledge.
- Program Objectives (PO) are abilities that are specifically described from the PLO assigned to a course, and are specific to
 the study material or learning materials for that course.
- 4. **Subject Sub-PO (Sub-PO)** is a capability that is specifically described from the PO that can be measured or observed and is the final ability that is planned at each learning stage, and is specific to the learning material of the course.
- 5. **Indicators for assessing** ability in the process and student learning outcomes are specific and measurable statements that identify the ability or performance of student learning outcomes accompanied by evidence.
- Assessment Criteria are benchmarks used as a measure or measure of learning achievement in assessments based on predetermined indicators. Assessment criteria are guidelines for assessors so that assessments are consistent and unbiased. Criteria can be quantitative or qualitative.
- 7. Forms of assessment: test and non-test.
- 8. **Forms of learning:** Lecture, Response, Tutorial, Seminar or equivalent, Practicum, Studio Practice, Workshop Practice, Field Practice, Research, Community Service and/or other equivalent forms of learning.
- Learning Methods: Small Group Discussion, Role-Play & Simulation, Discovery Learning, Self-Directed Learning,
 Cooperative Learning, Collaborative Learning, Contextual Learning, Project Based Learning, and other equivalent methods.
- 10. Learning materials are details or descriptions of study materials which can be presented in the form of several main points and sub-topics.
- 11. The assessment weight is the percentage of assessment of each sub-PO achievement whose size is proportional to the level of difficulty of achieving that sub-PO, and the total is 100%.
- 12. TM=Face to face, PT=Structured assignments, BM=Independent study.