	Universitas Negeri Surabaya **Faculty of Mathematics and Natural Sciences** **Natural Sciences** **Education Undergraduate Study Program**	**Document Code**

SEMESTER LEARNING PLAN

Courses	CODE	Course Family	Credit Weight			SEMESTER	Compilation Date
Ecology	8420103033	Biology	**T=3**	**P=0**	**ECTS=4.77**	3	April 28, 2023

AUTHORIZATION	SP Developer	Course Cluster Coordinator	Study Program Coordinator
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Learning model	**Case Studies**
Program Learning Outcomes (PLO)	**PLO study program which is charged to the course**
	Program Objectives (PO)
	PLO-PO Matrix

P.O

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

Short Course Description	Understand and communicate the basic concepts of Ecology regarding: the scope of ecology, ecosystem principles and concepts, energy principles and concepts, feeding processes, principles and concepts of biogeochemical cycles, limiting factors, communities, regulation of populations, species and individuals, ecoenergetics and ecosystem development. Presented in the form of theory and practice, through observation, discussion and presentation.
References	**Main :**

1. Campbell, N. A. et al. (2008). Biology; Eighth Edition . San Fransisco: Pearson, Benjamin Cummings.
2. Van der Maarel, Eddy. Ed. 2005. Vegetation Ecology . Printed and bound in the United Kingdom. by Blakwell Science Ltd a Black Well Publising Company.
3. Myers, Judith H. and Bazely Dawn R. 2003. Ecology and Control of Introduced Plants . The Edinburgh Building, Cambrige CB2 2RU, United Kingdom. Cambridge Universty Press.
4. Mayhew, Peter J. 2006. Discovering Evolutionary Ecology . Published in the United States; by Oxford University Press Inc., New York.
5. Mackenzie, A. A.S. Bali & S.R. Virdee. 1998. Instant Note In Ecology . Singapore: Bios Scientific Publishers Ltd.
6. Spellerberg, Ian,F. Longman. 1998. Conservation Biology . Singapore Publishers Ltd.
7. Gough, A., & Sharpley, B. (2005). Education for a sustainable future: a National Environmental Education Statement for Australia school. Diambil dari http://www.environment.gov.au/education/publications/pubs/national-action -plan.pdf
8. Gough, A. (2004). Achieving Sustainability Education in Primary Schools as a Result of the Victorian Science in Schools Research Project. Australian Journal of Environmental Education, Vol. 20(2).
9. Odum, E.P. 1998. Dasar-Dasar Ekologi. Yogyakarta: Gadjah Mada University Press.

Supporters:

	1. Odum, E.P. 1998. Dasar-Dasar Ekologi. Yogyakarta: Gadjah Mada University Press.
Supporting lecturer	Dr. Dyah Astriani, S.Pd., M.Pd. Dr. Hasan Subekti, S.Pd., M.Pd. Ahmad Qosyim, S.Si., M.Pd. Dr. Syarif Prasetyo, S.Si., M.Si.

Week-	Final abilities of each learning stage (Sub-PO)	Evaluation		Help Learning, Learning methods, Student Assignments, [Estimated time]		Learning materials [References]	Assessment Weight (%)
		Indicator	Criteria & Form	Offline (*offline*)	Online (*online*)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1							0%
2							0%
3							0%
4							0%
5							0%
6							0%
7							0%
8							0%
9							0%
10							0%
11							0%
12							0%
13							0%
14							0%
15							0%
16							0%

Evaluation Percentage Recap: Case Study

No	Evaluation	Percentage
		0%

Notes

1. **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.
2. **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.
3. **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.
6. **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.
9. **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.