

Module designation	Ecology
Module level, if applicable	Undergraduate
Code, if applicable	PBIOUM6123
Subtitle, if applicable	-
Courses, if applicable	-
Semester(s) in which the module is taught	Odd semester
Person responsible for the module	Prof. Dr. Drs. Fatchur Rohman, M.Si
Lecturer	Prof. Dr. Drs. Fatchur Rohman, M.Si Dr. Agus Dharmawan, M.S Prof. Dr. Ir. Suhadi, M.Si Dr. Vivi Novianti, M.Si Bagus Priambodo, S,Si, M.Si, M.Sc Farid Akhsani, S.Si, M.Si
Language	Bahasa Indonesia
Relation to curriculum	Undergraduate program, compulsory, 3rd semester
Type of teaching, contact hours	Undergraduate degree program: cooperative learning, presentation, discussion, laboratory work, 2 x 50 = 100 minutes and 1 x 170 minutes
Workload	1. Lectures: 2 x 50 = 100 minutes (1.67 hours) per week. 2. Exercises and Assignments: 2 x 60 = 120 minutes (2 hours) per week. 3. Laboratory work: 1 x 170 minutes (2.83 hours) per week. 4. Private study: 2 x 60 = 120 minutes (2 hours) per week.
Credit points	4 credit points (~6 ECTS-eq)
Requirements according to the examination regulations	Student must have attended at least 80% of the lectures to be eligible for the final examination
Recommended prerequisites	-
Module objectives/intended learning outcomes	Students are able to: (LO4) Master the theoretical concept and basic procedure in biology, and the laboratory management which is integrated by using logical, critical, systematic thinking.
Course Learning Outcomes	1. Understanding the philosophy, concepts, principles and procedures in ecological research.

	<p>2. Acquiring the skills to master the methods and techniques in ecology</p> <p>3. Acquiring the skills to collect, process, and analyze ecological data</p> <p>4. Acquiring skills in solving ecological problems</p>	
Content	<p>This course covers the following main topics:</p> <p>The nature of ecology, the field of ecological studies, data on environmental factors, environmental factors that affect the performance of organisms, population structure of living things, structure and function of communities, characteristics of ecosystems, environmental problems and solutions using an ecological approach</p>	
Learning Activity	Week 1	<ul style="list-style-type: none"> - Explaining the definition, scope and development of ecology. - Creating a schematic linkage of ecology with other sciences.
	Week 2	<ul style="list-style-type: none"> - Identifying organizational levels in ecology - Online interactive discussion: The concept of the organizational structure of life in ecological studies (individuals, populations, communities, ecosystems, biomes, biosphere/ecosphere)
	Week 3	<ul style="list-style-type: none"> - Analyzing the factors that limit the distribution: dispersal, habitat selection, physicochemical factors.
	Week 4	Describing and explaining the relationship between the tolerance range of organisms, resources and limiting factors with the performance of living things
	Week 5	Describing and explaining the relationship between the tolerance range of organisms, resources and limiting factors with the performance of living things
	Week 6	Identifying, classifying, and making inferences about population structure
	Week 7	Identifying, classifying, and making inferences about population structure
	Week 8	Identifying, classifying, and making inferences about community structure
	Week 9	Identifying, classifying, and making inferences about community structure
	Week 10	Analyzing articles and journals with ecosystem research topics.
	Week 11	Analyzing articles and journals with ecosystem research topics.

	Week 12	Analyzing articles and journals with ecosystem research topics.
	Week 13	Finding problems in the field, formulating and solving them using ecological methods.
	Week 14	<ul style="list-style-type: none"> ● Finding problems in the field, formulating and solving them using ecological methods. ● Field Lectures (KKL) in National Parks
	Week 15	<ul style="list-style-type: none"> ● Finding problems in the field, formulating and solving them using ecological methods. ● Field Lectures (KKL) in National Parks
	Week 16	<ul style="list-style-type: none"> ● Finding problems in the field, formulating and solving them using ecological methods. ● Field Lectures (KKL) in National Parks
Study and examination requirements and forms of examination	<ul style="list-style-type: none"> - Concept understanding (35%) : written test - Assignments (papers, individual assignments, practicum reports) (25%) : portofolio - Performance (presentation) (25%) : Observation - Activities (attendance, discussion) (15%) : Observation 	
Media employed	LCD, blackboard, and Sipejar.	
Reading list	<ol style="list-style-type: none"> 1. Barbour, M.G. 1980. Terrestrial Plant Ecology. California : B. Cummings. 2. Begon, M, J.L. Harper and C.R. Townsend. 1986. Ecology: Individuals, populations and communities. Oxford : Blackwell. 3. Dharmawan, A. Ibrohim, Hawa T, Suwono, H. Susanto, P. 2004. Ekologi Hewan. Malang: UM Press 4. Kendeigh. S.C. 1980. Ecology with special reference to animals and man. New Jersey : Prentice Hall. 5. Mueller, D. Dombois & H. ElleMBERG. 1974. Aims and Methods of Vegetation Ecology. New York, London, Sydney, Toronto. John Wiley. 6. Odum. F.P 1983. Basic ecology. Philadelphia : Saunders. 7. Syafei, E.S. 1990. Pengantar Ekologi Tumbuhan. Proyek Pembinaan Tenaga Kependidikan. FMIPA-ITB. 8. Odum, E. P. 1977. Ecology. Second Edition. Holt Rinehearat and Winston. London. 9. Krebs, C. J. 2001. Ecology: Experimental analysis of Distribution and Abundance. Fifth Edition. Benjamins Cummings, an imprint of Addison Wesley Longman, Inc. New York. 	
Date of last amendment made	January, 2022	