MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **BACHELOR OF BIOLOGY PROGRAMME**	**COURSE CODE :** **D10D-5002**
Module designation	Biomanagement	
Semester in which the module is taught	5	
Persons responsible for the module	1. Prof. Erri N. Megantara 2. Prof. Sunardi 3. Dr. Teguh Husodo	
Medium of instruction	Indonesian	
Relation to curriculum	Compulsory Course	
Teaching methods	Lectures, Discussions, and Problem base learning	
Workload	Total workload : 5440 minute = 90.67 hour Lecture, discussion, and problem base learning : 2 x 50 minute x 16 week = 1600 minute = 26.67 hour Exercises : 2 x 60 minute x 16 week = 1920 minute = 32 hour Self-study : 2 x 60 minute x 16 week = 1920 minute = 32 hour	
Credit points	2.00 (3.62 ECTS)	
Required and recommended prerequisites for joining the module	General ecology	
Module objectives/intended learning outcomes	1. Students can understand the urgency of biological use 2. Students can understand the meaning of environment and nature 3. Students can understand the value of the environment (ecosystem, social and cultural) and know how to respect the environment 4. Students can understand ethical/moral aspects of environmental management 5. Students can understand the concept of sustainable development 6. Students can understand the concept of renewable energy 7. Students can understand the concepts of biodiversity and deep ecology 8. Students can understand various case studies of environmental pollution 9. Students can understand various cases of biodiversity conservation	
Contents	This course studies the relationship between the natural environment and living things, the relationship between humans and the environment, the importance of the environment, environmental management and sustainable development, renewable energy, environmental pollution, and biodiversity conservation. 1. Introduction and course contract 2. Concepts of Biosystematics (phenetics and phylogenetics) 3. Theories of the Origin of Life (Big Bang Theory) 4. Theories of evolution, continental drift, and mechanisms of evolution (mutation and natural selection) 5. Microevolution and macroevolution and evidence of evolution (plants and animals) 6. Differences between homology and analogy	

	7. Sources of genetic variation that support microevolution 8. Reconstruction of phylogenetic trees and organism relationships 9. Concepts of species and speciation, as well as models of speciation processes 10. Ecology as an evolutionary approach
Examination forms	Quiz, Midterm exam, Assignment, and Final exam
Study and examination requirements	The minimum attendance in lectures is 80%. Final grades are evaluated based on quiz (10%), midterm exam (15%), assignment (10%), final exam (15%), project and participation (50%)
Reading lists	1. Abdoellah, O. 2016. Pembangunan berkelanjutan di Indonesia : di persimpangan jalan. Gramedia Pustaka Utama. Jakarta 2. Asdak, C. 2018. Kajian Lingkungan Hidup Strategis: Jalan Menuju Pembangunan Berkelanjutan: Edisi Revisi. UGM Press. Yogyakarta 3. Rinanti, A. 2017. Konsep ekologi dalam pembangunan berkelanjutan. Mobius : Yogyakarta 4. Indrawan, M. Primack, R.B., Supriatna, J. 2016. Konservasi Biologi. Penerbit Obor 5. Supriharyono. Konservasi Ekosistem Sumberdaya Hayati. Pustaka Pelajar 6. Hermawan, T.T., Rahayu. L dkk. 2019. Pengelolaan Kawasan Konservasi. UGM Press. Yogyakarta 7. Khitoliya, R.K. 2006. Environmental Pollution. S Chand & Company 8. The Sustainable Team. 2020. A Journey Through The SDGs: An E- book created for students by students.