MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **BACHELOR OF BIOLOGY PROGRAMME**	**COURSE CODE :** **D10D-4005**
Module designation	Bioconservation	
Semester in which the module is taught	4	
Persons responsible for the module	1. Prof. Dr. Erri N Megantara. 2. Dr. Teguh Husodo, M.Si 3. Dr. Susanti Withaningsih, M.Si	
Medium of instruction	Indonesian	
Relation to curriculum	Compulsory Course	
Teaching methods	Student-Centered Learning, Project-based Learning, Collaborative Learning	
Workload	Total workload : 5440 minute = 90.67 hour Lecture and discussion : 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	Biodiversity	
Module objectives/intended learning outcomes	1. Able to explain the basic principles of conservation biology and various multidisciplinary approaches used in biodiversity conservation 2. Able to explain the role of cutting-edge technologies such as remote sensing, GIS, genetic analysis, and bioacoustics in monitoring and managing species and ecosystem conservation 3. Able to link data literacy, technology literacy, and human literacy skills with the application of science-based conservation strategies and environmental policies 4. Able to investigate various factors threatening biological conservation as a result of climate change, deforestation, overexploitation, and invasive species 5. Students are able to determine biology and technology-based conservation solutions to overcome environmental problems and support ecosystem sustainability 6. Able to link the roles of community leadership and entrepreneurship in biological resource management through community-based conservation and ecotourism approaches 7. Able to investigate applicable conservation regulations and policies at the national and international levels and their implications for biological resource management 8. Able to describe the implementation of conservation biology concepts in various aspects of daily life to increase public awareness and participation in environmental preservation	
Contents	The conservation biology course explains the basic principles of conservation biology and interdisciplinary science developed to address various challenges in protecting species and ecosystems so that students can understand the issues and future prospects. Conservation science has three elements, namely (1) studying the impact of human activities on the existence and sustainability of life on earth; (2) developing practical approaches to prevent species extinction, maintain genetic diversity within species, and improve all aspects of diversity on earth; (3) studying all aspects of biological diversity on earth. The material for the conservation biology course consists of: interdisciplinary approaches to conservation biology, ethical principles of conservation biology, terminology and history of conservation biology, conservation at the species, population, and ecosystem levels, concepts of plant and animal conservation, plant and animal conservation strategies, conservation management, and the future prospects of conservation biology.	
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. Bappenas. 2003. Strategi dan Rencana Aksi Keanekaragaman Hayati Indonesia 2003-2020. Bappenas. Jakarta. Edward.O.Wilson. 1992. The Diversity of Life. W.W. Norton & Company. 2. Fahrig, L. 2003. Effect of Habitat Fragmentation on Biodiversity. Ann. Rev. Ecol.Evol.Syst. 34:487-515. Kantor Menteri Negara Lingkungan Hidup.1997.Agenda 21 Indonesia : A National Strategy for Sustainable Development. KMNLH dan UNDP. Jakarta. 3. Ines Omann, Andrea Stocker, Jill Jager. 2009. Climate Changes as a Threat to Biodiversity : An Application of the DPSIR Approach. Ecological Economics. Elsevier. 4. Jocelyn F, Jacques L, Paul C, Max D , Pascal M. 2010. Managing Agricultural Change for Biodiversity Conservation in a Mediteraanean upland. Biological Conservation. Elsevier. 5. Joshua J Lawler. 2009. Climate Change Adaptation Strategies for Resources Management and Conservation Planning. The Year in Ecology and Conservation Biology. New York Academy of Sciences. 6. Marcelo Tabarelli. 2010. Tropical Biodiversity in Human-Modified Landscape : What is our Trump Card. Biotropica. 7. Vermeulen, S dan Koziell, I. 2002. Integrating Global and Local Values. A review of Biodiversity Assessment. International Institute for Environment and Development, London. UK. 8. Wright, S.J. 2005. Tropical Forests in a Changing Environment. Trends Ecol. Evol. 20 : 553-560. 9. Van Dyke, F., & Lamb, R. L. (2023). Conservation Biology: Foundations, Concepts, Applications (Edisi ke-3). Springer Nature. 10. Groom, M. J., Meffe, G. K., Carroll, C. R., & Andelman, S. J. (2024). Principles of Conservation Biology (Edisi ke-4). Sinauer Associates/Oxford University Press.