MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES BACHELOR OF BIOLOGY PROGRAMME**	**COURSE CODE** **D10D-6301**
Module designation	Lanscape Ecology	
Semester(s) in which the module is taught	5	
Person(s) responsible for the module	1. Prof. Parikesit, Ph.D 2. Dr. Keukeu Kaniawati R 3. Nurullia Fitriani, S.Si, MT	
Medium of instruction	Indonesian	
Relation to curriculum	Elective course	
Teaching methods	Lectures, discussions, cooperative learning, inquiry learning, and project based learning	
Workload	Total workload : 5440 minutes = 90.67 hours Lectures, discussions, : 2 x 50 minutes x 16 weeks = 1600 minutes = 26.67 hours cooperative learning, and inquiry learning Exercises : 2 x 60 minutes x 16 weeks = 1920 minutes = 32 hours Self-study : 2 x 60 minutes x 16 weeks = 1920 minutes = 32 hours	
Credit points	2,00 (3,62 ECTS)	
Required and recommended prerequisites for joining the module	-	
Module objectives/intended learning outcomes	1. Students are able to define the basic concepts and definitions of landscape ecology. 2. Students are able to determine the complexity of landscape hierarchy and structure. 3. Students are able to modify and understand various patterns and processes within a landscape. 4. Students are able to analyze the concept of landscape heterogeneity. 5. Students are able to analyze the concept of ecotone. 6. Students are able to project the principles of conservation, landscape management, and design. 7. Students are able to animate the concept of urban ecology. 8. Students are able to animate the concept of sustainable cities.	
Contents	1. Contracts and Introduction 2. Theories and Models in Ecology 3. Patterns and Processes in Landscapes 4. The Concept of Landscape Heterogeneity 5. The Ecotone Concept 6. Principles of Landscape Conservation, Management, and Design 7. The Concept of Landscape Ecology in Urban Areas 8. The Concept of Sustainable Urban Management Design 9. Principles of Urban Biodiversity Management	
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. Farina, A. 2006. Principles And Methods In Andscape Ecology. Springer. Netherland 2. Elmqvist. T et. al. 2013. Urbanization, Biodiversity and Ecosystem Services: Challenges and Opportunities. Springer. London 3. Amistadi,L., Balducci, V., Bradecki, T dan Schröder, U. 2022. Mapping Urban Spaces: Designing the European City. Routledge. New York 4. Niemela J. Ecology and Urban Planning. Biodiversity and Conservation 1999;8 119-131. 5. Alberti M., Marzluff J. M., Shulenberger E., Bradley G., Ryan C., Zumbrunnen C.Integrating Humans into Ecology: Opportunities and Challenges for Studying Urban Ecosystems. American Institute of 6. Biological Sciences. BioScience 2003; 53(12) 1169-1179. 7. Sanderson, J dan Harris, L.D. 2000. Landscape Ecology. A Top Down approach. Lewis Publisher. Florida 8. Wu, J. G. (2006). Landscape ecology, cross-disciplinarity, and sustainability science.Landscape Ecology, 21, 1–4. 9. Wu, J. G. (2008). Making the case for landscape ecology: An effective approach tourban sustainability. Landscape Journal, 27, 41–50. 10. Wu, J. G. (2010a). Urban sustainability: An inevitable goal of landscape research.Landscape Ecology, 25, 1–4. 11. Wu, J. G. (2010b). Landscape of culture and culture of landscape: Does landscapeecology need culture? Landscape Ecology, 25, 1147–1150. 12. Wu, J. G. (2013). Landscape sustainability science: Ecosystem services and humanwell-being 13. Boinot, S., Alignier, A. & Storkey, J. (2024). Landscape perspectives for agroecological weed management. A review. Agron. Sustain. Dev. 44, 7. 14. Matten, D.M., Mienna, I.M., Bieker, V.C. et al. (2023). Spatial patterns of phylogenetic and species diversity of Fennoscandian vascular plants in protected areas. Biodivers Conserv 32, 4425–4443.