MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **BACHELOR OF BIOLOGY PROGRAMME**	**COURSE CODE** **D10D-601027**
Module designation	Marine Ecology	
Semester(s) in which the module is taught	6	
Person(s) responsible for the module	1. Dr. Rer.nat. Tri Dewi K. Pribadi S.Pi, M.Si 2. Prof. Dr. Budi Irawan, S.Si 3. Muhamad Agung Triyudha Agustiana , M.Si	
Medium of instruction	Indonesian	
Relation to curriculum	Elective course	
Teaching methods	Lectures, discussions, cooperative learning, project based learninig and inquiry learning	
Workload	Total workload : 5440 minutes = 90.67 hours Lectures, discussions, cooperative learning, and inquiry learning : 2 x 50 minutes x 16 weeks = 1600 minutes = 26.67 hours 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	Basic biology	
Module objectives/intended learning outcomes	1. Students are able to explain and demonstrate the scope of basic principles and marine ecological zoning through an introduction to vertical and horizontal zoning and marine territorial areas. 2. Students are able to associate the forms of interaction between populations and communities in marine ecosystems and their relationship with abiotic parameters. 3. Students are able to determine the characteristics and ecological functions of various types of marine ecosystems, including mangroves, seagrass beds, tide pools, coral reefs, and the deep sea. 4. Students are able to correlate ecological conditions and key limiting factors of various marine zones and their relationship with biota adaptation and ecosystem interactions 5. Students are able to rationalize solutions and management strategies for global marine issues based on marine ecology principles such as climate change, blue economy, ocean acidification, and ISLME.	
Contents	1. Concepts and scope of marine ecology 2. Marine zoning 3. Global marine issues: global warming, climate change, blue economy, ISLME 4. Mangrove ecosystems 5. Seagrass ecosystems 6. Tidepools and moats 7. Coral reef ecosystems 8. Deep sea ecosystems 9. Associated biota	
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. Romimohtarto, Kasijan dan Sri Juwana, 2001. Biologi Laut: Ilmu Pengetahuan tentang Biota Laut. hoursbatan, Jakarta. 2. Nybakken, J.W., 1992. Biologi Laut: Suatu Pendekatan Ekologis Gramedia, Jakarta. 3. Nontji, A., 2007. Laut Nusantara. Dhoursbatan, Jakarta. 4. English, S., C. Wilkinson, and V. Baker., 1994., Survey Manual for Tropical Marine Resources. Australian Institute of Marine Science, Townsville. 5. Kumpulan Peraturan Pengendalian Kerusakan Pesisir dan Laut. Deputi Bidang Peningkatan Konservasi Sumberdaya Alam dan Pengendalian Kerusakan Lingkungan Kementrian Lingkungan Hidup. 6. Kaiser, M. J., Attrill, M. J., Jennings, S., Thomas, D. N., Barnes, D. K. A., Brierley, A. S., & Hiddink, J. G. (2020). *Marine ecology: Processes, systems, and impacts* (3rd ed.). Oxford University Press. 7. Levinton, J. S. (2023). *Marine biology: Function, biodiversity, ecology* (6th ed.). Oxford University Press.	