THE MODULE HANDBOOK

Magister Biology Study Program

FACULTY OF BIOLOGY

COMMUNITY ECOLOGY

Course code	BIMB202129	
Course level	Master's	
Semester/term	Even	
Course coordinator(s)	Siti Nurleily Marliana	
Lecture(s)	Siti Nurleily Marliana	
Language	Indonesian	
Classification within the Curriculum	Compulsory	
Teaching format/ class hours per week during the semester	The lecture runs for 14 weeks, comprising one meeting each week, 100 min long.	
Workload	100 min of lecture per week; 120 min independent learning per week.	
Credits	2-0	
Requirements	None	
Program Learning Outcome	PLO A1	contribute in improving the quality of life of society, nation, state, and the development of civilization based on Pancasila;
	PLO A2	cooperate with communities at various level, and have social sensitivity and concern for the society and environment;
	PLO K1	biological theories, includes all aspects of biological studies at various levels in the organization of life;
	PLO K3	analysis and synthesis based on biological concepts, and principles of sustainable use and conservation of biological resource.
	PLO GS2	make decisions in solving biological problems based on analytical or experimental studies and critical analysis of information and data;
	PLO SK1	conduct research in the field of biology independently or in groups, and able to solve various biological-related problems.
Course Learning Outcome	CLO1	Students should be able to understand the underlying concepts of community ecology: historical patterns of community formation and their differing views.
	CLO2	Students should be able to understand the characteristics and dynamics of ecological

		communities, spatially and temporally, and the factors that influence them.
	CLO3	Students should be able to identify and understand the dynamics of interactions between species in a community and evolutionary history that play a role in shaping the types of interactions and their persistence.
	CLO4	Students should be able to understand the application of basic principles of community ecology in species conservation strategies.
	CLO5	Students should be able to identify and synthesize current issues regarding global ecological community problems related to the impact of human activities, and offer solutions and anticipations of these problems
Course Description	The Community Ecology course introduces students to the various processes and patterns that take place in ecological communities by integrating various concepts in ecology, biogeography, biodiversity, conservation, and other relevant fields of science. This course offers both theoretical and experimental approaches by providing various examples of real-world cases. In general, this course aims to help students gain a comprehensive and up-to-date understanding of community ecology and the history of knowledge that shapes today's understanding of community ecology. Topics covered include the concept of ecological community, community stability (succession), interactions between species (mutualism, competition, predation, energy flow in trophic chains), island biogeography, metacommunity, and the effects of environmental changes due to human activities (invasive species, disturbances) on the community.	
Assesments	Individual project and quizzes (10%), group assignments (20%), midterm exam (35%), end of term exam (35%)	
Study Media	Lecture video (YouTube), Google Classroom, online meeting platform	
Literature	1. Audesirk T, Audesirk G, Byers BE. 2017. Biology: Life on earth with physiology. Pearson. 2. Begon M, Townsend CR, Harper JL. 2006. Ecology: from individuals to ecosystems.Wiley. 3. Molles MC Jr. 2013. Ecology: concepts and applications. McGraw-Hill. 4. Morin PJ. 2011. Community Ecology. Wiley. 5. Ricklefs RE. 2008. The Economy of Nature. WH Freeman and Company. 6. Smith TM & Smith RL. 2015. Elements of ecology. Pearson. 7. Various OERs 8. Various journal articles	