MODULE HANDBOOK

	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **BACHELOR OF BIOLOGY PROGRAMME**	**COURSE CODE:** **D10D-60203**
Module designation	Limnology	
Semester in which the module is taught	5	
Person(s) responsible for the module	1. Prof. Sunardi 2. Dr. rer. nat. Tri Dewi K. Pribadi 3. Dr. Keukeu Kaniawati Rosada	
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	General Ecology Freshwater Ecology	
Module objectives/intended learning outcomes	1. Able to analyze the scope and history of limnology and its relationship with other sciences 2. Able to analyze inland waters as a living environment 3. Able to measure the physical aspects of inland waters 4. Able to analyze the chemical aspects of inland waters 5. Able to evaluate the biological aspects of inland waters 6. Able to evaluate nutrients in waters 7. Able to analyze eutrophication of a water ecosystem 8. Able to evaluate the trophic status of a water ecosystem	
Contents	1. Pengertian, ruang lingkup, dan sejarah perkembangan limnologi serta hubungannya dengan ilmu lain. 2. Perairan darat sebagai lingkungan hidup. 3. Aspek fisik, kimiawi, biologis, perairan darat. 4. Unsur hara dalam perairan. 5. Eutrofikasi dan status trofik suatu ekosistem perairan.	
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. Wetzel, R.G. 2001. *Limnology: Lake and River Ecosystems*. Third Edition. Academic Press 2. Dash, M. C., & Dash, S. P. (2009): Fundamentals of Ecology (3rd ed.), Tata McGraw-Hill Education Private Limited, New Delhi. 3. M. Begon, R.W. Howarth & C.R. Townsend (2014): Essentials of Ecology (4th ed). 4. Sigee, DC. 2005. Freshwater Microbiology: Biodiversity and Dynamic Interactions of Microorganisms in the Aquatic Environment. Manchester: John Wiley & Son, Ltd. 5. Wetzel, R. G., & Vymazal, J. (2023). *Limnology: Lake and river ecosystems* (4th ed.). Academic Press. 6. Dodds, W. K., & Whiles, M. R. (2023). *A practical guide to lake and river ecosystems*. Academic Press.	