	UNIVERSITAS PADJADJARAN **FACULTY OF MATHEMATICS AND NATURAL SCIENCES** **MASTER OF SCIENCE IN BIOLOGY**	**COURSE CODE: D20D2105**
Module designation	Pollution Ecology	
Semester(s) in which themodule is taught	2	
Persons responsible for the module	Prof. Sunardi, Ph.D Dr.rer.nat. Tri Dewi K. Pribadi	
Medium of instruction	Indonesian	
Relation to curriculum	Elective course Master of Science in Biology	
Teaching methods	Lecture, Discussion, Cooperative Learning and Problem Based Learning	
Workload	Total workload: 8160 minutes (90,67 hours) **CLASS** Lecture, Discussion, Cooperative Learning and Problem Based Learning : 2 x 50'x 16 weeks = 1600 minutes (26.67 hours) Exercise : 2 x 60'x 16 weeks = 1920 minutes (32 hours) Private study : 2 x 60'x 16 weeks = 1920 minutes (32 hours)	
Credit points	2.00 SKS (3.62 ECTS)	

Required and recommended prerequisites for joining the module	-

Module objectives/intendedlearning outcomes (CPMK)	1. After completing this course, the student will able to understand the concept of pollution ecology, able to analyze and evaluate environmental pollution phenomena, and recommend solutions to overcome pollution problems. 2. After completing this course, the student will be able to determine the right method in carrying out a multidisciplinary approach to answer problems through research in the field of pollution ecology.
Contents	The course provides knowledge and skill to the students to be able to understand the concept and framework of pollution ecology, be able to analyze and evaluate pollution, and recommend solutions and or approaches in overcoming pollution problems. Students will be introduced to concept and framework of pollution ecology, categorization of pollution, ecosystem services and their relation to pollution, emission, and transboundary pollution, instruments in pollution ecology, notes regarding the application of pollution ecology in the future.

Examination forms	Written examination and oral presentation
Study and examination requirements	Minimum attendance at lectures is 80%. Final score is evaluated based on assignment and group case study reports (20%), Assignment (20%), mid semester exam (30%), and end semester exam (30%).
Reading lists	1. Agarwal, S. K. 1991. Pollution Ecology. Himanshu Publication, 222 pages. 2. Rieuwerts, J. 2015. The Elements of Environmental Pollution. Routledge, London. 352 pages. 3. Spellman, F.R. 2021. The Science of Environmental Pollution. CRC Press, Boca Raton. 464 pages.