

**MODULE HANDBOOK**

	<b>UNIVERSITAS PADJADJARAN FACULTY OF MATHEMATICS AND NATURAL SCIENCES BACHELOR OF BIOLOGY PROGRAMME</b>	<b>COURSE CODE : D10D-50609</b>
<b>Module designation</b>	Environmental Microbiology	
<b>Semester in which the module is taught</b>	5	
<b>Persons responsible for the module</b>	<ol style="list-style-type: none"> <li>1. Dr. Nia Rossiana</li> <li>2. Prof. Ratu Safitri</li> <li>3. Asri Peni Wulandari, Ph.D</li> <li>4. Dr. Keukeu K. R</li> <li>5. Dr. Mia Miranti</li> </ol>	
<b>Medium of instruction</b>	Indonesian	
<b>Relation to curriculum</b>	Compulsory course	
<b>Teaching methods</b>	Lectures, discussions, and collaborative learning	
<b>Workload</b>	<p>Total workload : 8160 minutes = 136 hours</p> <p>Lecture, discussion, and collaborative learning : 3 x 50 minutes x 16 weeks = 2400 minutes = 40 hours</p> <p>Exercises : 3 x 60 minutes x 16 weeks = 2880 minutes = 48 hours</p> <p>Self-study : 3 x 60 minutes x 16 weeks = 2880 minutes = 48 hours</p>	
<b>Credit points</b>	3.00 (5.43 ECTS)	
<b>Required and recommended prerequisites for joining the module</b>	Basic Microbiology	
<b>Module objectives/intended learning outcomes</b>	<ol style="list-style-type: none"> <li>1. Able to apply logical, critical, systematic, and innovative in the context of the development or implementation of science knowledge and technology that pays attention to and applies humanities values according to the field of his skills;</li> <li>2. Able to demonstrate independent, quality, and measurable performance;</li> </ol>	
<b>Contents</b>	<p>This course is a compulsory theory course as a continuation of Basic Microbiology by discussing the application of microbiology to the environment. At the end of this lecture students are expected to be able to: recognize the scope of the field of environmental management in the field of microbiology, identify characteristics and environmental factors (water, soil, and air) and their specific types of microorganisms; describe the characteristics of environmental pollution and explain microbial interactions in changes in environmental quality; and be able to choose in changes in environmental quality; and be able to select appropriate methods for specific environmental quality analysis. Materials provided given is about the ecology and diversity of microorganisms, especially in soil, water, and air; biology of microorganisms, especially in soil, water, and air. in soil, water, and air; environmental bioremediation; environmental quality standards and water treatment systems involving methods of quality standards and water treatment systems involving microbiological methods; and microbiological methods; and air pollution investigation methods.</p>	
<b>Examination forms</b>	Quiz, Midterm exam, Practice, Assignment, and Final exam	
<b>Study and examination requirements</b>	The minimum attendance in lectures is 80%. Final grades are evaluated based on quiz (10%), midterm exam (25%), practice (20%), assignment (20%), and final exam (25%)	
<b>Reading lists</b>	Introduction to Environmental Microbiology Publisher: Oficyna Wydawnicza Politechniki Wrocławskiej. Editor: Oficyna Wydawnicza Politechniki Wrocławskiej, ISBN: 83-7085-880-5. Barbara Kolwzan.	