



UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF CHEMISTRY
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Bachelor of Science in Chemistry

MODULE HANDBOOK

Module name:	Fundamental of Microbiology
Module level, if applicable:	Undergraduate
Code:	KIM6240
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	6 th
Module coordinator:	Dr. Retno Arianingrum
Lecturer(s):	Dr. Retno Arianingrum
Language:	Bahasa Indonesia
Classification within the curriculum:	Elective Subject
Teaching format / class hours per week during the semester:	Lectures: 100 minutes lectures, 120 structured activities and 120 individual study per week
Workload:	Total workload of the activity is 90,67 hours per semester which consists of 100 minutes lectures, 120 structured activities and 120 individual study per week for 16 weeks
Credit points:	2 SKS (3 ECTS)
Prerequisites course(s):	-
Course Outcomes	After taking this course, the students have ability to:

	<p>CO1. explain the scope and history of microbiology CO2. explain the structure and function of cell microorganisms CO3. describe the growth and control of microorganisms CO4. explain the metabolism of microorganisms CO5. explain the physiological structure, and the role of Eubacteria and Archaeobacteria CO6. explain about microbial genetics CO7. explain the structure, physiology, and role of Viruses, Fungi, Algae and Protozoa CO8. describe the microbiology of health, soil, water, food and industrial structures, physiology, and the role of fungi</p>																																					
Content:	<p>This course discusses about the fundamental of understanding of microbes and their applications in various ways the field of life, the understanding of the microbial world which includes aspects of morphology, physiology, genetics, microbial cultivation, the role of microbes in various fields of human life, such as medical microbiology, food microbiology, and the environment.</p>																																					
Study / exam achievements:	<p>The final mark will be weight as follow:</p> <table border="1"> <thead> <tr> <th>No</th> <th>CO</th> <th>Assessment Object</th> <th>Assessment Technique</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td rowspan="5">1</td> <td rowspan="5">CO1, CO2, CO3, CO4, CO5, CO6, CO7, CO8.</td> <td>Attitude</td> <td>Observation</td> <td>10%</td> </tr> <tr> <td>Structural assignment: ability to rasonalize and describing</td> <td>Assignment</td> <td>10%</td> </tr> <tr> <td>Structural assignment: ability to applying the formula according to context</td> <td>Assignment</td> <td>10%</td> </tr> <tr> <td>Structural assignment: ability to collaborate, analyze, rasonalize, and communicate</td> <td>Assignment</td> <td>10%</td> </tr> <tr> <td>Individual assignment: skill to collect literacy, understanding, and describing</td> <td>Assignment</td> <td>10%</td> </tr> <tr> <td></td> <td></td> <td>Mid term exam</td> <td>Written test</td> <td>20%</td> </tr> <tr> <td></td> <td></td> <td>Final exam</td> <td>Written test</td> <td>30%</td> </tr> <tr> <td colspan="4">Total</td> <td>100%</td> </tr> </tbody> </table>	No	CO	Assessment Object	Assessment Technique	Weight	1	CO1, CO2, CO3, CO4, CO5, CO6, CO7, CO8.	Attitude	Observation	10%	Structural assignment: ability to rasonalize and describing	Assignment	10%	Structural assignment: ability to applying the formula according to context	Assignment	10%	Structural assignment: ability to collaborate, analyze, rasonalize, and communicate	Assignment	10%	Individual assignment: skill to collect literacy, understanding, and describing	Assignment	10%			Mid term exam	Written test	20%			Final exam	Written test	30%	Total				100%
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Forms of media:	<p>Board, LCD Projector, Video, handouts, PPT slides, and stationaries</p>																																					

