



UNIVERSITAS NEGERI JAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
CHEMISTRY STUDY PROGRAM

Jl. Rawamangun Muka, RT 11/RW 14, Rawamangun, Pulo Gadung,
 East Jakarta City, Special Capital Region of Jakarta 13220
 Phone/Fax: (021) 4894909, E-mail: kimia@unj.ac.id, <http://fmipa.unj.ac.id/kimia/>

Bachelor in Chemistry

MODULE HANDBOOK

Module name:	Practicum of General Biology				
Module level, if applicable:	Undergraduate				
Code:	34150013				
Sub-heading, if applicable:	-				
Classes, if applicable:	-				
Semester:	1 st				
Module coordinator:	Dra. Nurmasari Sartono, M.Biomed				
Lecturer(s):	1. Dra. Nurmasari Sartono, M.Biomed. 2. Erna Heryanti, M.Si.				
Language:	Indonesia				
Classification within the curriculum:	Compulsory Courses in the first year (1 st semester) Bachelor Degree				
Class Size	40				
Type of Teaching	In class activity : Team Based Project and Project based Learning Structured activity : Group Discussion using WorkSheet Independent activity : Individual task				
Teaching format / class hours per week	Learning activity can be carried out in the form of Laboratory activity: 170 minutes per week <ul style="list-style-type: none"> • Safety induction: 1 time (MSDS, safety equipment, waste disposal) • Preparation: 1 time (chemical preparation and experiment equipment) • Laboratory work: 12 times (11 project topics, i.e pretest, practicum activity, and writing report) Discussion: 170 minutes for 1 time (presentation and discussion of practical results) Examination: 170 minutes for 2 times (mid and final examination)				
Workload:	CU	Laboratory Activity	Discussion	Type	Examination
	1	28.33 h 0.94 ECTS	11.33 h 0.38 ECTS	P	5.67 h 0,18 ECTS
Credit points:	1 CU (1.5 ECTS)				
Prerequisite course(s):	None				

<p>Course Outcomes :</p>	<p>After taking this course the students have ability to:</p> <ol style="list-style-type: none"> 1. CLO1. Explain the concept of biological science. 2. CLO2. Recognize the characteristics of living things. 3. CLO3. Identify the types-structure-functions of micromolecules and macromolecules that make up living things. 4. CLO4. Associate the relationship between the structure and function of the parts of the cell. 5. CLO5. Analyze the stages of aerobic respiration. 6. CLO6. Examine the differences between lactic acid anaerobic respiration and alcohol anaerobic respiration. 7. CLO7. Analyze the stages of carbon assimilation in plants. 8. CLO8. Describe the structure of DNA and RNA as genetic material. 9. CLO9. Describe the stages of protein synthesis. 10. CLO10. Analyze the mechanism of inheritance. 11. CLO11. Examine Mendelian patterns of heredity. 12. CLO12. Describe the history of biotechnology and its applications in everyday life. 13. CLO13. Analyze the relationship between the structure and function of the tissues in composing plant organs or organ systems. 14. CLO14. Analyze the relationship between the structure and function of tissues in animals that make up the organs in the organ system. 15. CLO15. Examine the types of biodiversity. 16. CLO16. Summarizes the components of the ecosystem in relation to the interactions between living things and the flow of energy. 																									
<p>Content:</p>	<ol style="list-style-type: none"> 1. The concept of Biology Science 2. Characteristics of Living Things 3. Chemistry of life 4. Cell 5. Metabolism 6. Genetics 7. Mendelian heredity 8. Biotechnology 9. Plant form and function 10. Animal form and function 11. Biodiversity 12. Ecology 																									
<p>Study/exam achievements:</p>	<p>Examinations are conducted as Unit Tests. There are two-unit tests, each covers 4-5 chapters. The final marks are derived from unit tests (45%) and structured tasks (50%).</p> <table border="1" data-bbox="602 1654 1425 2045"> <thead> <tr> <th>No</th> <th>CO</th> <th>Assesment Object</th> <th>Assessment Techniques</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td rowspan="6">1</td> <td rowspan="6">CLO 1-16</td> <td>a. Individual assignments</td> <td rowspan="6"></td> <td>15%</td> </tr> <tr> <td>b. Presentation</td> <td>15%</td> </tr> <tr> <td>c. Group assignments</td> <td>15%</td> </tr> <tr> <td>d. UTS</td> <td>25%</td> </tr> <tr> <td>e. UAS</td> <td>25%</td> </tr> <tr> <td>f. Attendance</td> <td>5%</td> </tr> <tr> <td colspan="4" style="text-align: center;">Total</td> <td>100%</td> </tr> </tbody> </table>	No	CO	Assesment Object	Assessment Techniques	Weight	1	CLO 1-16	a. Individual assignments		15%	b. Presentation	15%	c. Group assignments	15%	d. UTS	25%	e. UAS	25%	f. Attendance	5%	Total				100%
No	CO	Assesment Object	Assessment Techniques	Weight																						
1	CLO 1-16	a. Individual assignments		15%																						
		b. Presentation		15%																						
		c. Group assignments		15%																						
		d. UTS		25%																						
		e. UAS		25%																						
		f. Attendance		5%																						
Total				100%																						

Media	Laptop, LCD, Zoom Meeting, Microsoft Teams
Literatures	<p>Reference</p> <ol style="list-style-type: none"> 1. Raven, Peter H., et. al. (2017). Biology. 11th ed. New York: McGraw-Hill. 2. Mader, Sylvia S. (2018). Human Biology. 15th ed. New York: McGraw-Hill. 3. Urry, Lisa A., et. al. (2017). Campbell Biology. 11th ed. New York: Pearson. 4. Taylor, Martha R., et. al. (2018). Campbell Biology – Concepts and Connections. 9th ed. New York: Pearson. 5. Brooker, Robert J. Et. al. (2017). Biology. 4th ed. New York: McGraw-Hill.

CLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CO1						√						
CO2						√						
CO3						√						
CO4						√						
CO5						√						
CO6						√						
CO7						√						
CO8						√						
CO9						√						
CO10						√						
CO11						√						
CO12						√						
CO13						√						
CO14						√						
CO15						√						
CO16						√						

