UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF SCIENCE EDUCATION
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Module name:	Laboratory Work for Basic Biochemistry
Module level, if applicable:	Undergraduate
Code:	IPA6121
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	3
Module coordinator:	Evy Yulianti, M.Sc
Lecturer(s):	Evy Yulianti, M.Sc
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format / class hours per week during the semester:	100 minutes lectures and 120 minutes structured activities per week.
Workload:	Total workload is 90.67 hours per semester which consists of 100 minutes lectures and 120 minutes structured activities, and 120 minutes individual study per week for 16 weeks.
Credit points:	1 (3 ETCS)
Prerequisites course(s):	
Targeted learning outcomes:	After taking this course the students have ability to: CO1. Show independence and responsible in carrying out individual tasks and group assignments CO2. show independent, systematic and measurable performance CO3. make decisions about solving problems related to basic biochemistry experiments consists of identify basic principles of biochemistry, qualitative test of macromolecules, testing the test about the activity of ptialin, pancreas enzyme and bile, calatase test, lipid,

<table>
<tr><td></td><td>vitamin.
CO4. responsible for achieving the results of group work</td></tr>
<tr><td>Content:</td><td>This course contains solving problems related to basic biochemistry experiments consists of carbohydrates, activities, dicusses qualitative for protein, lipid, vitamin, quantitative and digestive tests of enzyme</td></tr>
<tr><td>Study / exam achievements:</td><td>Attitude assessment is carried out at each meeting by observation and / or self-assessment techniques using the assumption that basically every student has a good attitude. The student is given a value of very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude.

The final mark will be weight as follow:

<table>
<tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr>
<tr><td>1</td><td>CO2, CO3 and CO4</td><td>a. performance
b. pretest
c. report
d. post test</td><td>Presentation / written test</td><td>30%
15%
15%
25%</td></tr>
<tr><td colspan="4">Total</td><td>100%</td></tr>
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</td></tr>
<tr><td>Forms of media:</td><td>Board, LCD Projector, Laptop/Computer</td></tr>
<tr><td>Literature:</td><td>

1. Berg, J. M., Tymoczko, J. L., Stryer, L., & Stryer, L. 2002.
2. Biochemistry. New York: W.H. Freeman.
3. Devlin, T.M. 1997. Textbook of Biochemistry with Clinical Correlations. 4th edition. New York: WileyLiss, Inc.
4. Lehninger, A. L., Nelson, D. L., & Cox, M. M. 2000. Lehninger principles of biochemistry. New York: Worth Publishers
5. Lieberman, M. and Peet A. 2018. Marks' basic medical biochemistry: a clinical approach. 5th edition. Philadelphia: Wolters Kluwer.
6. Murray, R.K., Bender D. A., Botham, K.M., Kennelly,P.J., Rodwell, V. W., Weil, P. A. 2009. Harper’s Illustrated Biochemistry. 28th edition. The McGraw-Hill Companies, Inc.
7. New York.Silberberg, Martin S. 2006. Principles of General Chemistry. McGraw-Hill Higher Education.
8. Nelson, D. L. and Cox,M. M. 2017. Principles of Biochemistry, 7th edition. New York: W. H. Freeman and

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	Company

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CO1		✓										
CO2								✓				
CO3				✓						✓		
												✓