Module Descriptions

Module designation	Biochemistry *Biokimia*
Course Code	8420502047
Semester/Term	1st Semester
Person responsible for the module	Prof. Dr.sc.agr. Yuni Sri Rahayu, M. Si. Prof. Dr. Isnawati, M. Si. Elma Sakinatus Sajidah, S.Si., M.Si., PhD
Language	Bahasa Indonesia (Indonesian language)
Relation to curriculum	Compulsory course
Teaching methods	Lecture
Workload	3 x 50 minutes lectures, 3 x 60 minutes structured activity, 3 x 60 minutes individual activity, 14 weeks per semester, 90 total hours per semester ~ 4.77 ECTS**
Credit Point	3 CU(4.77 ECTS)
Required and recommended prerequisites for joining the module	General Biology, General Chemistry
Module Objectives/intended learning outcomes	After taking this course, students will be: 1. Mastering concepts related to biochemical processes that occur in living things (*knowledge*) 2. Apply biochemical concepts or theories that have been mastered in solving problems procedurally in accordance with their field of science (*knowledge*) 3. Make the right decisions based on analysis of information and data, and be able to provide guidance in choosing various alternative solutions independently and groups in the field of biochemistry (*special competence*) 4. Have a responsible, honest, careful, careful attitude in carrying out work practices related to the concept of biochemistry in the laboratory (*attitude*)
Content	This course discusses organic compounds such as carbohydrates, proteins, lipids and nucleic acids and the metabolic processes (catabolism and anabolism) of these organic compounds in the body of living things, disorders that arise if there are abnormalities related to the supply and metabolism of these compounds. Other compounds which are important for life processes, such as water, vitamins and minerals are also discussed in this course. This course also

<table>
<tr><td></td><td>discusses enzymes which are important biological catalysts and hormones which are part of the coordination system of living things composed of chemical compounds. This subject also facilitates students to gain practical experience in identifying organic compounds. The attitude of students to be responsible, honest, work carefully, is carefully trained and developed in this course. This biochemistry course is packaged in the form of theory and practice to facilitate various process skills (minds on activity and hands on activity). It is hoped that students will be able to use their knowledge in the field of biochemistry to solve problems in daily life related to biochemistry. Learning is packaged with a student-centered learning approach using various methods according to the characteristics of the material, namely presentations, discussions, assignments, practicums and other learning strategies.</td></tr>
<tr><td>Study and examination requirements and forms of examination</td><td>Students are eligible for the final semester test if they have at least 75% attendance in class.

The final grade (NA) is calculated based on the following ratio:

<table>
<tr><th>Assessment Components</th><th>Percentage of contribution</th></tr>
<tr><td>Participation</td><td>20%</td></tr>
<tr><td>Assignment</td><td>30%</td></tr>
<tr><td>Mid-semester test</td><td>20%</td></tr>
<tr><td>Final semester test</td><td>30%</td></tr>
</table>

Grade Conversion of 0-100 scale into 0-4 scale is set as below:

<table>
<tr><th>Letter</th><th>Number</th><th>Grade interval</th></tr>
<tr><td>A</td><td>4.00</td><td>85 ≤ A ≤ 100</td></tr>
<tr><td>A-</td><td>3.75</td><td>80 ≤ A- <85</td></tr>
<tr><td>B+</td><td>3.50</td><td>75 ≤ B+ < 80</td></tr>
<tr><td>B</td><td>3.00</td><td>70 ≤ B < 75</td></tr>
<tr><td>B-</td><td>2.75</td><td>65 ≤ B- < 70</td></tr>
<tr><td>C+</td><td>2.50</td><td>60 ≤ C+ < 65</td></tr>
<tr><td>C</td><td>2.00</td><td>55 ≤ C < 60</td></tr>
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</td></tr>
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	D	1.00	40 ≤ D < 55
	E	0.00	0 ≤ E < 40
Reading List	1. Eubanks, P.L., Middlecamp, H.C., Pienta, J.N., Heltzel, E.C., Weaver, C.G. 2006. *Chemistry in Context*. New York: The McGraw-Hill Companies, Inc. 2. Isnawati. 2010. *Biokimia*. Surabaya: Unesa Press. 3. Nelson, DL dan Cox, MM. 2015. *Principles of Biochemistry*. (Lehninger). New York: Worth Publishing Inc. 4. Rahayu, YS, Ratnasari, E., Isnawati. 2016. *Biochemistry*. Surabaya: Unesa Press.		