

Module Handbook

Module Name:	Biochemistry
Module Level:	Bachelor
Abbreviation, if applicable:	BIK201
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/term:	Even (4 th semester)
Module coordinator(s):	MKWU Teaching Staff
Lecturer(s):	MKWU Teaching Staff
Language:	Bahasa Indonesia
Classification within the curriculum	Compulsory Course / Elective Studies
Teaching format / class hours per week during semester:	450 minutes/ week
Workload:	150 min lecture + 150 min structural assignment + 150 min self-assignment x 13 weeks; total 5850 min = 97.5 hours 97.5/25 = 3.9 ECTS
Credit Points:	3
Requirements:	-
Learning goals/competencies:	<p>General Competence (Knowledge) Students are able to connect the biochemical process in living organisms with the molecular basis of the theory correctly</p> <p>Specific Competence:</p> <ol style="list-style-type: none"> 1. Able to understand the fundamental of biochemistry and the structure and the function of protein and amino acid 2. Able to understand the transport of protein (myoglobin and hemoglobin) and enzyme correctly 3. Able to understand the structure and function of bio membranes, protein and connective tissue 4. Able to understand the fundamental of metabolism correctly 5. Able to understand the process of glycolysis and pentose phosphate pathway correctly 6. Able to understand the process of citric acid cycle and oxidative phosphorylation correctly 7. Able to understand the metabolism of glycogen correctly 8. Able to understand the metabolism of fatty acid and photosynthesis correctly
Content:	The structure and the function of protein and amino acid; transport of protein (myoglobin and hemoglobin) and enzyme correctly; bio membranes, protein and connective tissue; the fundamental of metabolism; glycolysis and pentose phosphate pathway; citric acid cycle and oxidative phosphorylation; metabolism of glycogen; metabolism of fatty acid and photosynthesis
Attribute soft skill	Discipline and argumentation

Study/exam achievements:	Students are considered to be competent and pass if at least get 40 of maximum mark of the exams (UTS and UAS), structured activity (group discussion).
	Final score (NA) is calculated as follow: 20% Paper project + 10% quiz + 30% mid exam + 30% final exam + 10% soft skill Final index is defined as follow: A : 75 – 100 AB : 70 - 74.99 B : 65 - 69.99 BC : 60 - 64.99 C : 55 - 59.99 D : 40 - 54.99 E : 0 - 39.99
Forms of Media:	Slides and LCD projectors, whiteboards
Learning Methods	Class and discussion
Literature	<ul style="list-style-type: none"> a. Morrison, R.T., Boyd, R.N., 1982. <i>Organic Chemistry</i>, 6th ed., Prentice Hall International Inc. London b. Buxton, S.R., Robert, S.M. 1996. <i>Guide to Organic Stereochemistry</i>, Addison Wesley Longman. Essex c. Fessenden, R. Fessenden J., 1994. <i>Organic Chemistry</i>, 5th ed., Wadsworth, Inc Belmont, California
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