

Module Handbook

Module Name:	Biochemistry
Module Level:	Bachelor
Abbreviation, if applicable:	Lecture BIK201 Practical Laboratory BIK201
Sub-heading, if applicable:	
Courses included in the module, if applicable:	
Semester/term:	1 / Second year
Module coordinator(s):	dr. Edhi Rianto, MS
Lecturer(s):	dr. Edhi Rianto, MS Prof. Dr. Retno H, MS, Ph.D Prof.Dr.Suhartati, dr., MS Sudarno, dr., ,M.Kes
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course/ Elective Studies
Teaching format/class hours per week during the semester:	Lecture 100 minutes lectures, 13 lecture classes/semester Practical Work 100 minutes practical work classes, 13 practical work classes /semester
Workload:	Lecture Total 22 hours a semester Practical Work Total 22 hours a semester
Credit Points:	Lecture 2 Practical Work 1
Requirements:	
Learning goal/competencies:	<p>Knowledge</p> <ul style="list-style-type: none"> – To understand the concept of basic biochemical concepts and principles in biomolecules and metabolism – To understand the concept of biochemical reaction and basic concepts and principles in assay of biomolecules <p>Skills</p> <ul style="list-style-type: none"> – To demonstrate an ability to discipline, honesty, and teamwork – To demonstrate an ability to plan and prepare practical laboratory practice investigation on biochemical reaction <p>Competence</p> <ul style="list-style-type: none"> – To understand and able to apply the concept of physiology linking to basic biomolecules (proteins, enzymes, carbohydrates and fats), – To understand and able to apply the concept of metabolism processes linking (carbohydrate, fat,

	<p>protein and uric acid)</p> <ul style="list-style-type: none"> - To understand and able to apply the concept of control of cell functions - To understand and able to apply the concept of biochemical reaction - To understand and able to apply the concept of biomolecules assay
Content:	Lecture Biomolecules (proteins, enzymes, carbohydrates and fats), metabolism (carbohydrate, fat, protein and uric acid) and energy metabolism
	Practical Work The students learn to perform biochemical reactions and assay of biomolecules
Study/exam achievements:	<p>Lecture</p> <p>Student are considered to be competent and pass if at least get 50% of maximum mark of the exams based learning.</p> <p>Final score (NA) is calculated as follow : 50% Exam I + 50% Exam II</p> <p>Final index is defined as follow : A : 100 > NA > 75 AB : 75 > NA > 70 B : 70 > NA > 65 BC : 65 > NA > 60 C : 60 > NA > 55 D : 55 > NA > 50 E : 50 < NA</p>
	<p>Practical Work</p> <p>Student are considered to be competent and pass if at least get 50% of maximum mark of the exams based learning.</p> <p>Final score (NA) is calculated as follow : 50% Exam I + 50% Exam II</p> <p>Final index is defined as follow : A : 100 > NA > 75 AB : 75 > NA > 70 B : 70 > NA > 65 BC : 65 > NA > 60 C : 60 > NA > 55 D : 55 > NA > 50 E : 50 < NA</p>
Forms of Media:	OHP, LCD projector, tools and materials laboratory at Airlangga University Faculty of Medicine Department of Biochemistry
Literature:	1. Albert B., 1994, <i>Molecular Biology of the cell</i> , edisi ke 3, garland.
	2. Lehninger, A.L.,1993., <i>Principles of Biochemistry</i> , edisi 2, Worth.
	3. Murray RK, <i>harper's Biochemistry</i> , 1996, edisi ke 24,

	Appleton and lange.
	4. Stryer L.,1995, <i>Biochemistry</i> , edisi ke 4, Freeman.
Notes:	The course is more concept of biochemical based as compared to basic biology