


## MODULE HANDBOOK

	<b>UNIVERSITAS PADJADJARAN</b> <b>FACULTY OF MATHEMATICS AND NATURAL SCIENCES</b> <b>BACHELOR OF BIOLOGY PROGRAMME</b>	<b>COURSE CODE :</b> <b>D10D-5004</b>
<b>Module designation</b>	Biochemistry and Analytics Practicum	
<b>Semester in which the module is taught</b>	5	
<b>Persons responsible for the module</b>	<ol style="list-style-type: none"> <li>1. Safri Ishmayana, Ph.D.</li> <li>2. Agus Safari, M.Si.</li> <li>3. Dr. Muhammad Fadhlillah</li> <li>4. Fajriana Shafira Nurruyda, M.Si.</li> </ol>	
<b>Medium of instruction</b>	Indonesian	
<b>Relation to curriculum</b>	Compulsory course	
<b>Teaching methods</b>	Practice	
<b>Workload</b>	Total workload : 2720 minute = 45.33 hour  Practice : 1 x 170 minute x 16 week = 2720 minute = 45.33 hour Exercises : - Self-study : -	
<b>Credit points</b>	1.00 (1.81 ECTS)	
<b>Required and recommended prerequisites for joining the module</b>	Basic chemistry	
<b>Module objectives/intended learning outcomes</b>	<ol style="list-style-type: none"> <li>1. Able to identify qualitatively an unknown sample based on chemical functional group of biomolecules</li> <li>2. Able to quantitatively determine carbohydrate, protein, and lipid content of a given sampel</li> <li>3. Able to determine that a metabolism occurred based on the metabolism products and determine factors that affecting it</li> </ol>	
<b>Contents</b>	In this course student will perform laboratory experiments for qualitative and quantitative determination of biomolecules including carbohydrate, lipid and protein. Qualitative assay will be performed based on functional groups presents in each of the biomolecules, while quantitative determination will mainly employ spectrophotometric methods. An experiment to prove the occurrence of metabolism in living organism by detecting the products of metabolism and factors affecting it.	
<b>Examination forms</b>	Quiz, Practical work observation, Practical work report, Final examination	
<b>Study and examination requirements</b>	The minimum attendance in lectures is 100%. Final grades are evaluated based on quiz (10%), practical work observation (60%), practical work report (20%), Final examination (10%)	
<b>Reading lists</b>	<ol style="list-style-type: none"> <li>1. Boyer, R. (2000). Modern Experimental Biochemistry. 3rd ed. Benjamin Cummings. San Francisco.</li> <li>2. Brewer, J.M. &amp; Ashworth, R.B. 1979. Experimental Technique in Biochemistry, Prentice-Hall, Inc. New Jersey.</li> <li>3. Holme, D.J., &amp; Peck, H. (1998) Analytical Biochemistry. 3rd ed. Longman Scientific &amp; Technical. Singapore.</li> </ol>	