

## Module Handbook

Module Name:	Clinical Chemistry
Module Level:	Bachelor
Abbreviation, if applicable:	KIA402
Sub-heading, if applicable:	
Courses included in the module, if applicable:	
Semester/term:	1 / Fourth year
Module coordinator(s):	Isnaeni, Dr., MS., Apt.
Lecturer(s):	Isnaeni, Dr., MS., Apt.
	Amirudin Prawita, Prof., Dr., Apt.
	Djoko Agus Purwanto, Dr., Apt
Language:	Bahasa Indonesia
Classification within the curriculum:	<del>Compulsory Course</del> /Elective Studies
Teaching format/class hours per week during the semester:	100 minutes lectures, 13 lecture classes/semester
Workload:	Total 22 hours a semester
Credit Points:	2
Requirements:	Student must have taken Analytical Chemistry (KIA101), Pharmaceutical Analysis I (KIA206) and Pharmaceutical Analysis II (KIA307) courses.
Learning goal/competencies:	<p>Knowledge</p> <ul style="list-style-type: none"> <li>- To understand the concept of comprehensive chemistry in clinical pharmacy.</li> </ul> <p>Skills</p> <ul style="list-style-type: none"> <li>- Honesty, discipline and active in discussion.</li> </ul> <p>Competence</p> <ul style="list-style-type: none"> <li>- To understand and able to apply the concept of analyzing biological sample.</li> <li>- To understand and able to apply the standard procedure of analyzing biological sample.</li> <li>- Able to analyze biological sample with accurate and precise result for patient's diagnosis and treatment.</li> </ul>
Content:	Definition of clinical chemistry, practice and basic principal of clinical chemistry, specimen handling (personal requirements for collecting sample, types of sample, sample handling process, sample variable), analytical procedures and clinical correlation, separating techniques, analysis techniques, proteomic instrumentation, and immunoassay
Study/exam achievements:	<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 :</p> <p>50% Exam I + 50% Exam II</p> <p>Final index is defined as follow :</p> <p>A : <math>100 &gt; NA &gt; 75</math>            AB : <math>75 &gt; NA &gt; 70</math>            B : <math>70 &gt; NA &gt; 65</math></p>

	BC : 65 > NA > 60 C : 60 > NA > 55 D : 55 > NA > 50 E : 50 < NA
Forms of Media:	LCD projector, whiteboard, internet.
Literature:	1. Clinical Chemistry, Techniques, Principles, and Correlation 2010. Michael, L.B.; Edward, P.F.; Larry, E.S. 6 <sup>th</sup> Ed. Wolters Kluwer, Lippincott Williams and Wilkins New York. 2. Handbook of Laboratory safety 5 <sup>th</sup> ed. Boca Baton, Fla: CRC.Press.2000. 3. Stankovic AK. The Laboratory is key partner in assuring patient safety. Clin. Lab. Med. 2004; 24: 1023-1035. 4. Westgard J.O. Basic Method Evaluation 2 <sup>nd</sup> Ed. Madison, Wls.: Westgard Quality Corp. 2003.
Notes:	The course is more concept of analytical chemistry comprehensive used in clinical field.