

## Module Handbook

<b>Module Name</b>	Laboratory Technique Lab Work					
<b>Module Level</b>	Higher Diploma					
<b>Code, if applicable</b>	VKD109					
<b>The subtitle, if applicable</b>	-					
<b>Courses, if applicable</b>	-					
<b>Semester(s) in which the module is taught</b>	1 <sup>st</sup> semester					
<b>Person responsible for the module</b>	Bayu Wiyantoko, M.Sc.					
<b>Lecturer</b>	Bayu Wiyantoko, M.Sc. Ganjar Fadillah, M.Si.					
<b>Language</b>	Bahasa Indonesia					
<b>Relation to curriculum</b>	Compulsory					
<b>Type of teaching, contact hours</b>	Laboratory Practice (teaching, preparation, lab work, data analysis and report) and Exams: 11.3 hours x 16 week					
<b>Workload</b>	Total workload	91 hours; 2 CU				
		Face to face teaching	Laboratory preparation	Laboratory work	Data analysis and report	Exam (Theory and Practice)
	Hours	11	11	50	11	8
<b>Credit Points</b>	2 CU/3.4 ECTS					
<b>Requirements according to the examination regulations</b>	100% of requirements attendance in laboratory activities					
<b>Recommended prerequisites</b>	-					
<b>Module objectives/intended learning outcomes</b>	<p>PLO 7: Able to choose and perform the suitable methods of chemical analysis and operate the chemicals instrument by applying the principles of chemistry occupational safety and health</p> <p>Subject LO:</p> <ol style="list-style-type: none"> <li>1. Able to use balance, simple measuring tools and equipment volumetric and non-volumetric glassware</li> <li>2. Able to use simple separation equipment</li> <li>3. Able to demonstrate by weighing and measuring instruments using volumetric and non-volumetric</li> <li>4. Able to apply simple separation method</li> <li>5. Able to report observation data orally and in writing</li> <li>6. Able to apply principles and build a culture of chemical occupational health and safety</li> <li>7. Able to build team work in carrying out laboratory procedures</li> </ol>					
<b>Content</b>	<ol style="list-style-type: none"> <li>a. The introduction of glass tools and supporting equipment, analytical gravimetric and volumetric analysis</li> <li>b. The application of various methods of separation.</li> </ol>					
<b>Study and examination</b>	Assessment lab work (55%), team work (10%), analysis and report (25%), safety lab (10%)					

<b>requirements and forms of examination</b>	
<b>Media employed</b>	Google classroom, youtube, zoom meeting, google form, google doc, standard method, laboratory handbook
<b>Reading list</b>	<ol style="list-style-type: none"><li>1. Armarego, W.L.F., Chai, L.L.C., 2009, Purification of Laboratory Chemicals, Elsevier, Oxford</li><li>2. Beran, J.A., 2011, Laboratory Manual for Principles of General Chemistry, John Wiley &amp; Sons, New Jersey</li><li>3. Day, Jr.,R.A., Underwood, A.L., 2002, Analisis Kimia Kuantitatif, Diterjemahkan oleh Aloysius Pudjaatmaka, Edisi ke 6, Penerbit Erlangga, Jakarta</li></ol>