

Module Handbook

Module Name	Inorganic Chemistry Lab Work					
Module Level	Higher Diploma					
Code, if applicable	VKD218					
The subtitle, if applicable	-					
Courses, if applicable	-					
Semester(s) in which the module is taught	2 nd semester					
Person responsible for the module	Reni Banowati Istiningrum, S.Si., M.Sc.					
Lecturer	Bayu Wiyantoko, S.Si., M.Sc. Reni Banowati Istiningrum, S.Si., M.Sc. Ganjar Fadillah, M.Si.					
Language	Bahasa Indonesia					
Relation to curriculum	Compulsory					
Type of teaching, contact hours	Laboratory Practice (teaching, preparation, lab work, data analysis and report) and Exams: 11.3 hours x 16 week					
Workload	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
Credit Points	2 CU/3.4 ECTS					
Requirements according to the examination regulations	100% of requirements attendance in laboratory activities					
Recommended prerequisites	-					
Module objectives/intended learning outcomes	<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"> 1. Students are able to apply laboratory procedure and determine elemental properties based on the periodic table of element 2. Students are able to apply laboratory procedure and determine the nature of solubility equilibrium reaction 3. Student are able to apply laboratory procedure and determine properties of complex compounds and application in chemicals testing 4. Students are able to build teamwork in carrying out laboratory procedures of complex compounds and applications in chemical testing. 5. Student able to apply laboratory procedures and determine characteristics of solids 					

	<p>6. Students are able to analyze data and report test results in writing and orally</p> <p>7. Students are able to apply principles and build a culture of chemical safety and health</p> <p>8. Students are able to build team work in carrying out laboratory procedures</p>
Content	<p>1. Periodic properties and reactivity of element</p> <p>2. Solubility equilibrium</p> <p>3. Coordination chemistry or complex compounds</p> <p>Properties of solids</p>
Study and examination requirements and forms of examination	<p>Assessment lab work (55%), team work (10%), analysis and report (25%), safety lab (10%)</p>
Media employed	<p>Google classroom, youtube, zoom meeting, google form, google doc, standard method, laboratory handbook</p>
Reading list	<ol style="list-style-type: none"> 1. Anonim, 2017, Determination of iron by thiocyanate colorimetry, diakses dari http://www.outreach.canterbury.ac.nz/chemistry/documents/iron_colorimete_r.pdf, access at 24 Juli 2017, University of Canterbury 2. Athawale, V.D dan Mathur, P., 2001, Experimental Physical Chemistry, New Age International, New Delhi 3. Beran, J.A., 2009, Laboratory Manual for Principles of General Chemistry, John Wiley and Sons, USA 4. Bergstrom, W and Howells, M., __, <i>Inorganic Chemistry Laboratory Experiments</i>, Independent School District, University of Minnesota 5. Widihati, I.A.G., Ratnayani, O., dan Angelina, Y., 2010, Characterization of Acidity and Surface Area of Green Coconut Shell (<i>Cocos nucifera</i>) and Its Utilization as Cd²⁺ Ion Biosorbent, <i>Journal of Chemistry</i>, Vol 4. No. 1, 7-14