Module Handbook

Module Name	Analytical Chemistry					
Module Level	Higher Diploma					
Code, if applicable	VKD213					
Subtitle, if applicable	-	-				
Courses, if applicable	-					
Semester(s) in which	2 nd semester					
the module is taught	z semester					
Dorson rosponsible for	Thorikul Hud					
the module	Vuli Pohyami					
	Tun Konyanni,	, IVI.SC.				
Lecturer		a, IVI.SC.				
	Yuli Konyami,	, IVI.SC.				
Language	Bahasa Indonesia					
Relation to curriculum	Compulsory	Compulsory				
Type of teaching,	Flipped classr	oom-cooperati	ive learning: (1) independent s	study: flipped	
contact hours	classroom: go	ogle classroom	n; (2) face to fa	ce: cooperative	e learning; (3)	
	structure acti	vities: coopera	tive learning; (4) exam: 9.71 h	ours x 16	
	weeks per sei	mester				
Workload	Total Workloa	ad	136 h	ours; 3 CU		
		Independen	Face to	Structure	Exam	
		t studv:	face:	activities:		
		flipped	cooperative	cooperative		
		classroom	learning	learning		
	Hours	42	35	42	17	
Credit Points	3 CU/5 03 FC	TS 12		12	1/	
cicale i onito						
Requirements	75% minimum requirements of attendance					
Requirements	75% minimur	n requirements	s of attendance	2		
Requirements according to the	75% minimur	n requirements	s of attendance	2		
Requirements according to the examination	75% minimur	n requirements	s of attendance	2		
Requirements according to the examination regulations	75% minimur	n requirements	s of attendance	2		
Requirements according to the examination regulations Recommended	75% minimur	n requirements	s of attendance	2		
Requirements according to the examination regulations Recommended prerequisites	75% minimur	n requirements				
Requirements according to the examination regulations Recommended prerequisites Module	PLO 3: Able t	n requirements	c concepts of	chemistry, chen	nical analysis,	
Requirements according to the examination regulations Recommended prerequisites Module objectives/intended	PLO 3: Able t	n requirements o express basio d maintenance	c concepts of of chemical ins	chemistry, chen truments that c	nical analysis, an be applied	
Requirements according to the examination regulations Recommended prerequisites Module objectives/intended learning outcomes	PLO 3: Able t operation and in their work	n requirements o express basion d maintenance	c concepts of of chemical ins	chemistry, chen truments that c	nical analysis, can be applied	
Requirements according to the examination regulations Recommended prerequisites Module objectives/intended learning outcomes	PLO 3: Able t operation and in their work Subject LO:	n requirements	c concepts of of chemical ins	chemistry, chen truments that c	nical analysis, can be applied	
Requirements according to the examination regulations Recommended prerequisites Module objectives/intended learning outcomes	PLO 3: Able t operation and in their work Subject LO: 1. Students	n requirements	c concepts of o of chemical ins	chemistry, chen truments that c stage of qu	nical analysis, an be applied alitative and	
Requirements according to the examination regulations Recommended prerequisites Module objectives/intended learning outcomes	PLO 3: Able t operation and in their work Subject LO: 1. Students quantita	n requirements o express basic d maintenance s are able to tive analysis or	c concepts of of chemical ins o explain the chemical test	chemistry, chen struments that c stage of qu	nical analysis, can be applied alitative and	
Requirements according to the examination regulations Recommended prerequisites Module objectives/intended learning outcomes	 PLO 3: Able t operation and in their work Subject LO: Students quantita Students 	n requirements o express basic d maintenance s are able to tive analysis or s are able to id	c concepts of of chemical ins o explain the chemical test entify of type	chemistry, chen truments that c stage of qu ing s of errors in qu	nical analysis, an be applied alitative and ualitative and	
Requirements according to the examination regulations Recommended prerequisites Module objectives/intended learning outcomes	 PLO 3: Able t operation and in their work Subject LO: Students quantita Students quantita 	n requirements o express basic d maintenance tive analysis on are able to id tive analysis	c concepts of of chemical ins o explain the chemical test entify of types	chemistry, chen struments that c stage of qu ing s of errors in qu	nical analysis, can be applied alitative and ualitative and	
Requirements according to the examination regulations Recommended prerequisites Module objectives/intended learning outcomes	 PLO 3: Able t operation and in their work Subject LO: Students quantita Students quantita Students 	n requirements o express basic d maintenance tive analysis or are able to id tive analysis are able to un	c concepts of of chemical ins o explain the chemical test entify of types it system, appl	chemistry, chen struments that c stage of qu ing s of errors in qu ying significant	nical analysis, can be applied alitative and ualitative and number rules	
Requirements according to the examination regulations Recommended prerequisites Module objectives/intended learning outcomes	 PLO 3: Able t operation and in their work Subject LO: Students quantita Students in chemi Students 	n requirements o express basic d maintenance tive analysis or are able to id tive analysis are able to un cal measureme	c concepts of of chemical ins o explain the chemical test entify of types it system, applent	chemistry, chen stage of qu ing s of errors in qu ying significant	nical analysis, can be applied alitative and ualitative and number rules	
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Requirements according to the examination regulations Recommended prerequisites Module objectives/intended learning outcomes	 PLO 3: Able t operation and in their work Subject LO: Students quantita Students in chemi Students Students Students Students Students 1. Qualitative 2. Measurem 	n requirements o express basic d maintenance are able to tive analysis or are able to id tive analysis are able to un cal measureme are able to de ble are able to gra are able to gra are able to gra are able to gra	c concepts of of chemical ins o explain the chemical test entify of types it system, appl ent termine the ty lumetric analy lumetric analy tive Analytical	chemistry, chen struments that c stage of qu ing s of errors in qu ying significant pes on anions a rsis sis Chemistry	nical analysis, can be applied alitative and ualitative and number rules nd cations in	
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Study and examination	Subject LO	Examination requirements and forms of Percent				
requirements and		examination				
forms of	1	Quizzes, collaborative assignment,	10			
examination		midterm exam				
	2	Quizzes, collaborative assignment,	10			
		midterm exam				
	3	Quizzes, collaborative assignment,	10			
		midterm exam, final exam				
	4	Quizzes, collaborative assignment,	10			
		midterm exam				
	5	Quizzes, collaborative assignment,	20			
		midterm exam				
	6	Quizzes, collaborative assignment,	40			
		midterm exam, final exam				
Media employed	Google class	room, youtube, zoom meeting, google form,	google slide,			
	kahoot, men	timeter				
Reading list	1. Day, Jr.,	1. Day, Jr., R.A. and Underwood A.L., 2002. Quantitative Analysis.				
	Translate	d by: Aloysius Pudjaatmaka. Erlangga: Jakari	ta			
	2. Harvey, D	0., 2000. <i>Modern Analytical Chemistry</i> . 1 st Ed	ition, Mc Graw			
	Hill : Bost	con				
	3. Fifield, F	Fifield, F.W. and Kealey, D., 2000. Principles and Practice of				
	Analytical Chemistry. Wiley-Blackwell, United Kingdom					
	4. Kennedy, J.H., 1990. Analytical Chemistry : Principle. Sounders					
	College Publishing, New York					
	5. Khopkar,	5. Khopkar, S., M., 2004. Basic Concepts Of Analytical Chemistry 2 nd				
	Edition, New Age International (P) Ltd., New Delhi, India					
	6. Mendhar	. Mendham, J., Denney R.C., Barnes J. D., Thomas M.J.K., 2009. Vogel's				
	Quantita	ative Chemical Analysis (6th Edition). Pearson education				
	7. Skoog D./	D.A., West D.M., Holler F.J., 1996. Fundamentals of Analytical				
	Chemistry	Chemistry. Saunders College Pub				
	8. Vogel, 19	3. Vogel, 1990. Qualitative Inorganic Analysis. Translated by: L Setiono				
	and A. Hadyana Pudjaatmaka, 5 th PT Kalman Media Pustaka: Jakarta					