

UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES DEPARTMENT OF CHEMISTRY 1 Colombo Street Yogyakarta 55281 Phone (0274)565411, Ext. 1398, Fax (0274)548203 Website: kimia.fmipa.uny.ac.id, E-mail: kimia@uny.ac.id

Bachelor of Science in Chemistry

MODULE HANDBOOK

Madula nama	Electrophomical Analysia					
Module name: Module level, if applicable:	Electrochemical Analysis					
Code:	Undergraduate					
	KIM 6241					
Sub-heading, if applicable:	-					
Classes, if applicable:	- 7ct					
Semester:	7 st					
Module coordinator:	Prof. Dr. Suyanta, M. Si					
Lecturer(s):	Prof. Dr. Suyanta, M. Si					
	Siti Marwati, M. Si					
Language:	Bahasa Indonesia and English					
Classification within the curriculum:	Elective Subject					
Teaching format / class	100 minutes lectures, 120 structured activities and 120					
hours per week during the semester:	ndividual study per week					
Workload:	Total workload is 27 hours per semester which consists of 100					
	minutes lectures, 120 structured activities and 120 individual					
	study per week for 16 weeks					
Credit points:	2 SKS (3 ECTS)					
Prerequisites course(s):	Fundamental of analytical chemistry					
	After taking this course, the students are expected to be able to:					
Course Outcome:	CO1 Committed to understanding of electrochemistry concepts in the fields of electrolytic process and analytical chemistry					
	CO2 Analyize of concept and calculation on electrochemical system and in experimental methods in electrochemical analysis					
	CO3 Formulate models for application of electrochemical analysis in the real samples					
Content:	This course will also include the study about electrochemistry concepts and their applications in analytical chemistry. The concept includes: Chemical change and electric energy electrolysis (redox reactive that require energy to occure) galvanic or voltaic cells (reaction that provide energy when the occure) Coverage of the materials: 1. Electrolysis cells and galvanic cells					

2. Potentiometry 3. Electrogravimetry 4. Polarography 5. Voltammetry Attitude assessment is carried out at each mee observation and/or self-assessment techniques us assumption that basically every student has a good The student is marked very good or not good attitude show it significantly compared to other students in The result of attitude assessment is not taken into ac the final grades, but as each of the requirements to pro-								
Course Outcome:	the final grades, but as one of the requirements to pass the course. Students will pass from this course if at least have a good attitude. The final mark will be weight as follow:NoCOAssessment ObjectAssessment TechniqueWeight							
	1	CO1, CO2, CO3,	a. Assignments b. Mid-term Exam c. Final Exam d. Activities	Presentation / written test	40% 25% 25% 10%			
Forme of medicy	Total 10							
Forms of media: References:	 Handout, Board, LCD Projector, Laptop/Computer, Module Suyanta dan Buchari, 2000, Seri Analisis Elektrokimia David K Gosser, 1993, Cyclic Voltammetry, VCH Publisher, New York Yoseph Wang, 2000, Analytical Electrochemistry, John Wiley and sons, New York Allen J Bard and R Faulkner, 1980, Electrochemical Methods, John Wiley and sons, New York 							

PLO and CO mapping

	PLO									
	Attitude	General Skill		Knowledge				Specific Skill		
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10
CO1						\checkmark				
CO2										
CO3										