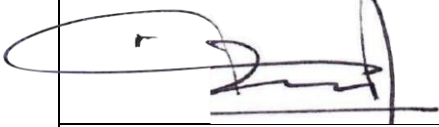




Faculty of Natural Sciences and Mathematics
Chemistry Department
Chemistry Education Study Program

Module name		Organic chemistry I		
Module level, if applicable		1 st Year		
Code, if applicable		SPK – 212		
Semester(s) in which the module is taught		2 nd semester		
Person responsible for the module		Dr. Tatang Shabur Julianto, M.Si.		
Lecturer		Dr. Tatang Shabur Julianto, M.Si. Lina Fauzi'ah, M.Sc.		
Language		Indonesia		
Relation to curriculum		Compulsory		
Teaching methods	Class size	Forms of active participation	Workload 91	
Class discussion	50-60	Discussion	Lecture: 100 (min) x 16 (meeting)	27 hours
			Assignment: 120 (min) x 16 (week)	32hours
			Independent study: 120 (min) x 16 (week)	32 hours
ECTS Credit		3.25		
Credit points		2 SCU		
Requirements according to the examination regulations		Minimum attendance at lectures is 75% (according to UII regulation)		
Recommended prerequisites		N/A		
Related course		Organic chemistry II, Organic chemistry lab work		
Module objectives/intended learning outcomes		On successful completion of the course students should be able to: 1. Explain theoretical concepts regarding the study of organic chemistry, the concept of bonds in organic compounds and their hybridization, as well as skeletal, condensed structures, and constitutional isomers. 2. Explain the concept of naming organic compounds in IUPAC or nontrivial ways 3. Explain theoretical concepts about the physical properties of organic compounds 4. Explain theoretical concepts about the chemical properties of organic compounds		

Content	• Concept of bond formation in organic compounds: Single, double and triple bonds; sp³, sp², and sp hybridization; condensed structure and skeletal structure; heteroatom • Nomenclature of organic compounds: before midterm: alkanes, alkenes, alkynes, alkyl halides, alcohols, ethers; After midterm/final examination: aldehydes, ketones, carboxylic acids, esters, acid halides, nitriles, acid anhydrides • Physical properties: boiling point, melting point, polarity, solubility in water, and polarity of organic compounds: before midterm: alkanes, alkenes, alkynes, alkyl halides, alcohols, ethers; After midterm/final examination: aldehydes, ketones, carboxylic acids, esters, acid halides, nitriles, acid anhydride. • Chemical properties: acidity/basicity, chemical reactions of organic compounds: before midterm: alkanes, alkenes, alkynes, alkyl halides, alcohols, ethers; After midterm/final examination: aldehydes, ketones, carboxylic acids, esters, acid halides, nitriles, acid anhydride.		
Study and examination requirements and forms of examination	Final score (NA) is calculated as follows:		
	Intended learning outcomes	Weight (%)	Technique of assessment
	1	15	Written test: assignment, midterm
	2	25	Written test: assignment, midterm , final examination
	3	25	Written test: assignment, midterm , final examination
	4	35	Written test: assignment, midterm, final examination
Media employed	Power point slide presentation, video, Google classroom		
Reading list	Brown, W.H., and Poon, T., 2014, Introduction to Organic Chemistry 5th Edition, United States of America: John Wiley & Sons. Hornback, J.M., 2005, Organic Chemistry second edition, Belmont: Thomson/Brooks Cole. McMurry, J., 2010, Organic Chemistry with Biological Application 2e, Belmont: Brooks Cole.		

Prepared by:	Verified by:	Authorized by:
		
Person responsible for the module	Student representative	Coordinator Program