## **MODULE HANDBOOK**

Module Level         Bachelor           Abbreviation, if applicable         -           Course included in the module, if applicable         -           Semester/term         5 <sup>th</sup> /Third year           Semester/term         5 <sup>th</sup> /Third year           Calassification within the classification within the curriculum         Thomesian           Teaching format/class hours per week during the semester         3 hours lectures (50 min/hour)           Workload         3 x 50 minutes lectures, 3 x 60 minutes structured activity, 3 x 60 minutes individual activity, 14 weeks per semester, 119 total hours per semester ~ 4.77 ECTS**           Credit Point         3 CU = 3 x 1.59 = 4.77 ECTS           Prerequisite Course(s)         Quantum Chemistry           Learning Outcome         Students have the ability to communicate the results of experiments so they are able to develop a conceptual framework for formulating actions or alternative actions in solving chemical problems in life.           Students have knowledge of the laws of reaction rates and reaction mechanisms based on empirical facts (inductive dimensions) and submit theoretical arguments to explore empirical facts that occur (deductive dimensions) in the field of reaction kinetics.           Students have knowledge of the laws of reaction rates and reaction mechanisms based on empirical facts (inductive dimensions) and submit theoretical arguments to explore empirical facts that occur (deductive dimensions) in the field of reaction kinetics.           Students have knowledge of the laws of reaction rates and re	Module Name	Chemical Kinetics		
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Assessment Components Percentage of contribution				
		Assessment Components	Percentage of contribution	
Participation   20%		Participation	20%	

	Assignment	30%	
	Mid-semester test	20%	
	Final semester test	30%	
Media	Computer, LCD, White board, laboratory instruments		
Learning Methods	Lectures, discussion, assignment, laboratory activity		
Literature	Wilkinson, Frank. 1936. Chemical Kinetics and Reaction		
	Mechanisms. Victoria: Van Nostrand Reinhold Company.		
	<ul> <li>Atkins, P. W. 1995. <i>Physical Chemistry</i>. Third Edition. New York: W. H. Freeman and Company.</li> <li>Castelan, Gilbert W. 1983. <i>Physical Chemistry</i>. Third Edition. Tokyo: Addison-Wesley Publishing Company.</li> </ul>		
	*1 CU in learning process = three periods consist of: (a)		
	scheduled instruction in a classroom or laboratory (50		
	minutes); (b) structured activ	ivity (60 minutes); and (c)	
Notes:	individual activity (60 minutes) according to the Regulation		
	of Indonesia Ministry of Research, Technology, and Higher		
	Education No. 44 Year 2015 jo. the Regulation of Indonesia		
	Ministry of Research, Technology, and Higher Education No.		
	50 Year 2018.		
	**1 CU = 1,59 ECTS according to Rector Decree Of		
	Universitas Negeri Surabaya N	o. 598/Un38/Hk/Ak/2019	