

## UNIVERSITAS NEGERI YOGYAKARTA FACULTY OF MATHEMATICS AND NATURAL SCIENCES DEPARTMENT OF BIOLOGY 1 Colombo Street, Yogyakarta 55281 Phone (0274)565411 ext. 217, (0274)565411(Administration office), fax (0274)548203 Website: fmipa.uny.ac.id, e-mail: humas\_fmipa@uny.ac.id

## Bachelor of Education in Biology

## MODULE HANDBOOK

Module name:	General Chemistry						
Module level, if applicable:	Undergraduate						
Code:	KIM 6401						
Sub-heading, if applicable:	-						
Classes, if applicable:	-						
Semester:	1 <sup>st</sup>						
Module coordinator:	Jaslin Ikhsan, Ph.D.						
Lecturer(s):	Nur Fitriyana, M.Pd.						
Language:	Bahasa Indonesia						
Classification within the curriculum:	Compulsory Course						
Teaching format / class hours per week during the semester:	100 minutes lectures, 120 minutes structured activities and 120 minutes individual study per week						
Workload:	Total workload of the activity is 90,67 hours per semester which consist of 100 minutes lectures, 120 minutes structured activities and 120 minutes individual study per week for 16 weeks.						
Credit points:	2 SKS (3 ECTS)						
Prerequisites course(s):	-						
Program Learning Outcome	PLO 4: Mastering basic Biology and other relevant knowledge with mathematics and natural sciences.						
Course Outcome:	After taking this course, the students are expected to be able   to:   CO1 Students can explain the basic concepts of chemistry to support their understanding in the field of biological studies   CO2 Students can apply chemical experiment techniques to solve problems related to biology   CO3 Students evaluate the basic concepts of chemistry that can be used in biology to develop professionalism   CO4 Students demonstrate academic communication skills both, oral and written form in the field of chemistry						
Content:	The General Chemistry course for Biology aims to provide the basics of chemistry that are closely related to the field of biology						

	so that it can be used as a foundation for understanding a comprehensive biology concept. This course discusses the concepts of stoichiometry, solutions, chemical kinetics, thermochemistry, nuclear chemistry and radiochemistry, as well as organic and biochemistry. The learning methods use are discussion, question and answer, lectures and conducted in cooperative learning models, problem-based learning, and other effective learning models for fulfilling graduate learning outcomes. The aspects assessed in this lecture include aspects of generic skills and specific skills. Both aspects were assessed with different techniques, including observation, written tests, quizzes assignments and performance.							
	The final mark in this course will be weight as follow:							
Study / exam achievements:	No	СО	Assessment Object	Assessment Technique	Weight			
	1	CO1,	a. Structural	Written	20%			
		CO2,	assignments	assignment	000/			
	2	CO3,	b. Mid-term exam	Written test	30%			
	3	CO4	c. Final exam	VVritten test	30%			
	4		d. Presentation of	Performance	20%			
			the assignment	anu				
				Total	100%			
Forms of media:	Boar		rojector Lanton/Comm	uter and Modul	0			
	Burdge L (2011) Chemistry 2nd Ed New York: McGraw-Hill							
	Chang, R. (2007). Chemistry 10th Ed. New York: McGraw-Hill							
	Partana, C. J. (2002). Common text book kimia dasar 2.							
	Yogyakarta: UNY dan JICA							
	Sukarna, I. M. (2002). Common text book kimia dasar 1.							
References:	Yogyakarta: UNY dan JICA							
	Jespersen, ND and Brady, JE. (2004). Chemistry: The							
	molecular nature of matter . New York : John Wiley and							
	SONS.							
	6th Ed Bolmont: Thomson Prock/Colo							
	oth Ed. Belmont: Thomson Brook/Cole.							

## PLO and CO mapping

CO	PLO 1	PLO 2	PLO 3	PLO4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10	PLO 11	PLO 12
CO1												
CO2												
CO3												
CO4												