UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF BIOLOGY
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Module name:	**General Chemistry**
Module level, if applicable:	Undergraduate
Code:	KIM 6401
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	1st
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 (3,29 ECTS)
Prerequisites course(s):	-
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.
Study / exam achievements:	The final mark in this course will be weight as follow:

No	CO	Assessment Object	Assessment Technique	Weight
1	CO1, CO2, CO3, CO4	a. Structural assignments	Written assignment	20%
2		b. Mid-term exam	Written test	30%
3		c. Final exam	Written test	30%
4		d. Presentation of the assignment	Performance and observation	20%
			Total	100%

Forms of media:	Board, LCD Projector, Laptop/ Computer, and Module.
References:	Burdge, J. (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*. Yogyakarta: UNY dan JICA Jespersen, ND and Brady, JE. (2004). *Chemistry: The molecular nature of matter* . New York : John Wiley and Sons. Oxtoby, David W et.all. (2008). *Principles of modern chemistry 6th Ed*. Belmont: Thomson Brook/Cole.

PLO and CO mapping

Course Outcomes (CO)	PLO										
	Attitude			Knowledge	Specific Skill				Generic Skill		
	PLO 1	PLO 2	PLO 3	PLO4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10	PLO 11
CO1						√					
CO2							√				
CO3										√	
CO4											√