



MINISTRY OF EDUCATION AND CULTURE
UNIVERSITAS NEGERI SURABAYA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF NATURAL SCIENCES

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Undergraduate Programme in Science Education

Module Handbook

Module Name:	<i>Kimia Umum</i> (General Chemistry)
Module Level:	Bachelor degree/Undergraduate Programme
Course Code:	8420103045
Abbreviation, if applicable:	Kimia Umum
Courses included in the module, if applicable:	Not applicable
Semester/term	I/one (yuniar)
Module coordinator(s):	Dr.Erman.M.Pd.
Lecturer(s):	Prof. Dr. Erman Dra. Martini, M.Pd Siti Nurul Hidayati, S.Pd., M.Pd. Wahyu Sabtiawan, S.Si., M.Pd Ernita Vika Aulia,S.Pd.M.Pd.
Language:	<i>Bahasa Indonesia</i> (Indonesian Language)
Classification within the curriculum:	Compulsory / Elective
Teaching format/class hours per week during the semester:	3 contact hours of lectures (Indonesia credit semester or <i>sks</i> *)
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 <i>sks</i> (4.77 ECTS)
Requirements:	-
Learning goals/competencies:	Course Learning Outcomes (CLOs): 1. Capable to use science and technology to obtain information on basic chemical concepts and communicate them 2. Mastering the basic concepts of chemistry in the study of material properties 3. Able to solve basic chemistry problems in science learning 4. Mastering the basic concepts of chemistry including atoms, ions, and molecules, chemical bonds, basic chemical concepts including elements, compounds, and mixtures
Content:	Scientific Method, Matter and Properties of Matter, Periodic System of Elements, Chemical Bonds, Stoichiometry, Solutions, Colloid Systems,
Attribute Soft skill:	Discipline, collaboration, responsibility, and argumentation in the natural classroom setting
Study/exam achievements:	Students are considered to be competent and pass if at least get 40% of the maximum final grade. The final grade (NA) is calculated based on the following weight:

	<table border="1"> <thead> <tr> <th>Assessment Components</th> <th>Percentage Contribution</th> </tr> </thead> <tbody> <tr> <td>Participation</td> <td>20%</td> </tr> <tr> <td>Assignment</td> <td>30%</td> </tr> <tr> <td>Mid-semester test</td> <td>20%</td> </tr> <tr> <td>Final semester test</td> <td>30%</td> </tr> <tr> <td>Total</td> <td>100%</td> </tr> </tbody> </table>	Assessment Components	Percentage Contribution	Participation	20%	Assignment	30%	Mid-semester test	20%	Final semester test	30%	Total	100%
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Learning Methods	Student-centered approach, deductive learning, lecturing, discussion, and presentation (structured activities), and flip learning												
Form of Media:	LCD, PowerPoint, hand out, simulation, and whiteboard and e-learning unesa (https://vinesa.unesa.ac.id/course/view.php?id=423)												
Literature (primary references):	<ol style="list-style-type: none"> 1. Tim Kimia Umum. 2013. <i>Kimia Umum</i>. Surabaya: Jurusan Kimia FMIPA Unesa. 2. Brady, James.E. 2004. <i>General Chemistry. Principle and Structure. 4th</i>. ed. New York. John Willey and Sons, Inc. 3. Chang, Raymond. 2005. <i>General Chemistry The Essential Concepts Third Edition</i>. USA: McGraw Hill. 												
Notes:	<p>*1 sks in learning process = three contact hours that consist of: (a) scheduled instruction in a classroom or laboratory (50 minutes); (b) structured activity (60 minutes); and (c) 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.</p> <p>**1 sks = 1,59 ECTS</p>												