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### Module Handbook

Module Name :	<i>Kimia Umum</i> General Chemistry
Module level :	Bachelor degree/Undergraduate Program
Course Code :	4420103062
Abbreviation, if applicable:	-
Courses included in the module, if applicable:	Not Applicable
Semester/Term	1 <sup>st</sup> / first year
Module coordinator(s)	Dr. Pirim Setiarso, M.Si.
Lecturer(s):	Dr. Pirim Setiarso, M.Si. Samik, S.Si., M.Si.
Language:	Bahasa Indonesia (Indonesian Language)
Classification within the curriculum:	Compulsory/ <del>Elective</del>
Teaching format/class hours per week during the semester:	3 contact hours of lectures ( <i>sks</i> or credit unit*)
Workload :	3 x 50 minutes lectures, 3 x 60 minutes structured activity, and 3 x 60 minutes individual activity per week, 14 weeks per semester 119 total hours per semester ~ 4.77 ECTS**
Credit Unit:	3 credit unit (4.77 ECTS)
Requirements:	None



Learning goals/competencies:	<p><b>COM-2 : Generating ideas used for completing mathematical tasks and to communicate them either in writing or orally, in accordance with scientific principles.</b></p> <ul style="list-style-type: none"> <li>• CLO-1: Explain experimental results, and the use of basic chemistry concepts in the discussion of solving related problems, both orally and in writing.</li> </ul> <p><b>SOC-1 : Working collaboratively and having social sensitivity (obligations as citizens and towards religion) and being able to bring change to a techno-ecopreneurship community.</b></p> <ul style="list-style-type: none"> <li>• CLO-2: Develop and apply scientific, logical, critical, and innovative thinking in presenting alternative solutions for solving problems related to the basic concepts of chemistry.</li> </ul>
Content	This course discusses about the basic concepts of Scientific Methods, Properties of Matter, Stoichiometry, Periodic System of Elements, Chemical Bonds, Energetics, Substance Forms, Solutions, Colloids, Carbon Chemistry, Green Chemistry and Chemicals in Daily Life

Attribute Soft skill:	Active communication; Discipline; Collaboration; Responsibility; and Argumentation in class and outdoor setting											
Study/exam achievements:	The final grade ( <i>NA</i> ) is calculated based on the following ratio: <table border="1" data-bbox="539 1375 1347 1700"> <thead> <tr> <th data-bbox="539 1375 943 1442">Assessment Components</th> <th data-bbox="943 1375 1347 1442">Percentage of contribution</th> </tr> </thead> <tbody> <tr> <td data-bbox="539 1442 943 1509">Participation</td> <td data-bbox="943 1442 1347 1509">20%</td> </tr> <tr> <td data-bbox="539 1509 943 1576">Assignment</td> <td data-bbox="943 1509 1347 1576">30%</td> </tr> <tr> <td data-bbox="539 1576 943 1644">Mid-semester test</td> <td data-bbox="943 1576 1347 1644">20%</td> </tr> <tr> <td data-bbox="539 1644 943 1700">Final semester test</td> <td data-bbox="943 1644 1347 1700">30%</td> </tr> </tbody> </table>		Assessment Components	Percentage of contribution	Participation	20%	Assignment	30%	Mid-semester test	20%	Final semester test	30%
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	<p>Grade conversion of 0-100 scale into 0-4 scale is set as below:</p> <table border="1"> <thead> <tr> <th>Letter</th> <th>Number</th> <th>Grade Interval</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>4,00</td> <td><math>85 \leq A \leq 100</math></td> </tr> <tr> <td>A-</td> <td>3,75</td> <td><math>80 \leq A- &lt; 85</math></td> </tr> <tr> <td>B+</td> <td>3,50</td> <td><math>75 \leq B+ &lt; 80</math></td> </tr> <tr> <td>B</td> <td>3,00</td> <td><math>70 \leq B &lt; 75</math></td> </tr> <tr> <td>B-</td> <td>2,75</td> <td><math>65 \leq B- &lt; 70</math></td> </tr> <tr> <td>C+</td> <td>2,50</td> <td><math>60 \leq C+ &lt; 65</math></td> </tr> <tr> <td>C</td> <td>2,00</td> <td><math>55 \leq C &lt; 60</math></td> </tr> <tr> <td>D</td> <td>1,00</td> <td><math>40 \leq D &lt; 55</math></td> </tr> <tr> <td>E</td> <td>0,00</td> <td><math>0 \leq E &lt; 40</math></td> </tr> </tbody> </table>	Letter	Number	Grade Interval	A	4,00	$85 \leq A \leq 100$	A-	3,75	$80 \leq A- < 85$	B+	3,50	$75 \leq B+ < 80$	B	3,00	$70 \leq B < 75$	B-	2,75	$65 \leq B- < 70$	C+	2,50	$60 \leq C+ < 65$	C	2,00	$55 \leq C < 60$	D	1,00	$40 \leq D < 55$	E	0,00	$0 \leq E < 40$
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Learning Methods :	Student-centered approach; project-based learning; lecturer and discussion; and presentations (structured activities)																														
Form of Media:	Power point slides; video; worksheets, and textbooks																														
Literature (primary references):	<ol style="list-style-type: none"> <li>1. Tim Kimia Umum. 2013. Kimia Umum . Surabaya: Jurusan Kimia FMIPA Unesa.</li> <li>2. Brady and Humiston. 2004. General Chemistry, Principles and Structures. 4th. New York: John Willey and Sons.</li> <li>3. Chang, Raymond. 2005. General Chemistry The Essential Concepts Third Edition. USA: McGraw Hill</li> </ol>																														
Notes:	*1 credit unit or <i>sks</i> in learning process = three periods 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.																														



**MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY**  
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<p><b>**1 credit unit or <i>sks</i> = 1.59 ECTS according to Rector Decree Of Universitas Negeri Surabaya No. 598/UN38/HK/AK/2019</b></p>
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