



**MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY**  
**UNIVERSITAS NEGERI JAKARTA**  
**FACULTY OF MATHEMATICS AND NATURAL SCIENCE**  
**CHEMISTRY STUDY PROGRAM**

Kampus A, Gedung Hasjim Asj'arie Rawamangun, Jakarta Timur 13220 Telp/Fax : (021) 4894909, E-mail : pkimia@unj.ac.id

**Bachelor in Chemistry**

**Module Handbook**

Module name:	Basic Chemistry Practicum				
Module level, if applicable:	Undergraduate				
Code:	33250112				
Sub-heading, if applicable:	-				
Classes, if applicable:	-				
Semester:	2 <sup>nd</sup>				
Module coordinator:	Dr. Fera Kurniadewi, M.Si.				
Lecturer(s):	Dr. Hanhan Dianhar, M.Si. Edith Allanas, M.Pd.				
Language:	Bahasa Indonesia (Indonesian Language)				
Classification within the curriculum:	Compulsory Courses in the first year (2 <sup>nd</sup> semester) Bachelor Degree				
Teaching format/class hours per week during the semester	<p>Learning activity can be carried out in the form of <b>Laboratory activity: 340 minutes per week</b></p> <ul style="list-style-type: none"> <li>- Safety induction: 1 time (MSDS, safety equipment, waste disposal)</li> <li>- Preparation: 1 time (chemical preparation and experiment equipment)</li> <li>- Laboratory work: 11 times (8 project topics, i.e pretest, practicum activity, and writing report)</li> </ul> <p><b>Discussion:</b> 340 minutes for 1 time (presentation and discussion of practical results)</p> <p><b>Examination:</b> 340 minutes for 2 times (mid and final examination)</p>				
Workload:	<b>Type</b>	<b>CU</b>	<b>Laboratory Activity</b>	<b>Discussion</b>	<b>Examination</b>
	P	2	73,66 h 2,44 ECTS	5,66 h 0,188 ECTS	11,33 h 0,372 ECTS
Credit points:	2 CU (3 ECTS)				
Prerequisite course(s):	Basic Chemistry 1 and Basic Chemistry 2				
Course outcomes:	<p>CLO1. Demonstrate basic skills and work safety in chemical laboratories</p> <p>CLO2. Carry out chemical experiments according to practical guidelines and analyze the data obtained</p>				



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Content:	<ol style="list-style-type: none"> <li>1. Basic OHS Skills in Chemistry Lab</li> <li>2. Basic Skills in Chemistry Laboratory</li> <li>3. Basic laws of chemistry</li> <li>4. Chemical reaction</li> <li>5. Thermochemistry</li> <li>6. Reaction rate</li> <li>7. Chemical equilibrium</li> <li>8. Acid-base and acid-base indicators</li> <li>9. Colligative Properties of Solutions</li> <li>10. Colloid</li> <li>11. Redox and Electrochemistry</li> </ol>												
Study/exam achievements:	<p>Examinations are conducted as Unit Tests. There are two-unit tests, each covers 4-5 chapters. The final marks are derived from unit tests (70%) and structured tasks (30%).</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Aspect</th> <th style="text-align: center;">(%)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Attitude</td> <td style="text-align: center;">15</td> </tr> <tr> <td style="text-align: center;">General skills</td> <td style="text-align: center;">10</td> </tr> <tr> <td style="text-align: center;">Special skills</td> <td style="text-align: center;">50</td> </tr> <tr> <td style="text-align: center;">Knowledge</td> <td style="text-align: center;">25</td> </tr> <tr> <td style="text-align: center;">Final score</td> <td style="text-align: center;">100</td> </tr> </tbody> </table>	Aspect	(%)	Attitude	15	General skills	10	Special skills	50	Knowledge	25	Final score	100
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Attitude	15												
General skills	10												
Special skills	50												
Knowledge	25												
Final score	100												
Media	Laboratory equipment, Projectors, Practical videos, Learning Management System (MsTeams or Alkana)												
Literatures	<ol style="list-style-type: none"> <li>1. Tim, 2021, Practical Guide Basic Chemistry Practicum Departement Chemistry FMIPA Universitas Negeri Jakarta</li> <li>2. Elias, A. J., A., Collection of Interesting General Chemistry Experiments, Sangam Books, 2002.</li> <li>3. Murov, S. L., Experiments in General Chemistry (Cengage Laboratory Series for General Chemistry), Cengage Learning, 2014.</li> </ol>												

**PLO and CO mapping**

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
<b>CO1</b>	v		v					v				
<b>CO2</b>	v		v					v				