MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY
UNIVERSITAS NEGERI SURABAYA
FACULTY OF MATHEMATICS AND NATURAL SCIENCE
UNDERGRADUATE PROGRAM OF MATHEMATICS EDUCATION
Ketintang Campus, C8-C9 Buildings of FMIPA, Surabaya
Email: s1-pmat@unesa.ac.id

MODULE HANDBOOK

Module Name:	General Chemistry
Module Level:	Sarjana (S-1) / Bachelor
Abbreviation, if applicable:	8420203089
Sub-heading, if applicable:	-
Course included in the module, if applicable:	-
Semester/term:	1/ First year
Module Coordinator(s):	Dr. Utiya Azizah, M.Pd
Lecturer(s):	Team
Language:	Indonesia
Classification within the curriculum:	Compulsory course/ ~~elective studies~~
Teaching format/class hours per week during the semester	Teaching format: lectures, tutorial assignment, and individual study. 3 x 170 minutes = 510 minutes = 8.5 hours lectures
Workload:	14 weeks per semester consisting of: ➢ 2.5 hours lectures (3 x 50 minutes) per week, ➢ 3 hours tutorial assignments (3 x 60 minutes) per week, ➢ 3 hours individual study (3 x 60 minutes) per week, Total workload : 14x3x170 minutes = 7,140 minutes = 4.76 ECTS*
Credit Point:	3
Requirements:	-

MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY
UNIVERSITAS NEGERI SURABAYA
FACULTY OF MATHEMATICS AND NATURAL SCIENCE
UNDERGRADUATE PROGRAM OF MATHEMATICS EDUCATION
Ketintang Campus, C8-C9 Buildings of FMIPA, Surabaya
Email: s1-pmat@unesa.ac.id

Learning Goals:	**Social and Attitude** CLO-1 Solve chemistry concepts such as stoichiometry, Periodic System of Elements, Chemical Bonds, Forms of Substances, Energetics, Solutions, Colloid Systems, Carbon Chemistry, Biochemistry, and Everyday Chemicals.
	CLO-2 Implement mathematics to solve chemistry problems.
Content:	Study of basic concepts: scientific method, properties of matter, stoichiometry, periodic system of elements, form of matter, energetics, solutions, colloid system, carbon chemistry and biochemistry, and everyday chemicals.

MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY
UNIVERSITAS NEGERI SURABAYA
FACULTY OF MATHEMATICS AND NATURAL SCIENCE
UNDERGRADUATE PROGRAM OF MATHEMATICS EDUCATION
Ketintang Campus, C8-C9 Buildings of FMIPA, Surabaya
Email: s1-pmat@unesa.ac.id

<table>
<tr><td>Study/exam achievements</td><td>

Students are considered competent and pass if the final score calculated from the score of midterm exam, assignments, participation, and final exam is at least 55 or C.
Final score is calculated as follows:
20% midterm exam + 30% assignments + 20% participation + 30% final exam
Final index is defined as follow:

<table>
<tr><th>Index</th><th>Converted Score</th><th>Score Range</th></tr>
<tr><td>A</td><td>4.00</td><td>$85 \leq A \leq 100$</td></tr>
<tr><td>A-</td><td>3.75</td><td>$80 \leq A- < 85$</td></tr>
<tr><td>B+</td><td>3.50</td><td>$75 \leq B+ < 80$</td></tr>
<tr><td>B</td><td>3.00</td><td>$70 \leq B < 75$</td></tr>
<tr><td>B-</td><td>2.75</td><td>$65 \leq B- < 70$</td></tr>
<tr><td>C+</td><td>2.50</td><td>$60 \leq C+ < 65$</td></tr>
<tr><td>C</td><td>2.00</td><td>$55 \leq C < 60$</td></tr>
<tr><td>D</td><td>1.00</td><td>$40 \leq D < 55$</td></tr>
<tr><td>E</td><td>0.00</td><td>$0 \leq E < 40$</td></tr>
</table>
</td></tr>
<tr><td>Forms of Media</td><td>Slides and LCD projectors, whiteboard</td></tr>
<tr><td>Literature</td><td>1. General Chemistry Team. 2013. Kimia Umum. Surabaya: Department of Chemistry FMIPA Unesa.
2. Brady, James.E. 2004. General Chemistry. Principle and Structure. 4th ed. New York. John Willey and Sons, Inc.</td></tr>
<tr><td></td><td>3. Chang, Raymond. 2005. General Chemistry the Essential Concepts Third Edition. USA: McGraw Hill.</td></tr>
</table>

MINISTRY OF EDUCATION, CULTURE, RESEARCH, AND TECHNOLOGY
UNIVERSITAS NEGERI SURABAYA
FACULTY OF MATHEMATICS AND NATURAL SCIENCE
UNDERGRADUATE PROGRAM OF MATHEMATICS EDUCATION
Ketintang Campus, C8-C9 Buildings of FMIPA, Surabaya
Email: s1-pmat@unesa.ac.id

Note	*Total hours per 1 credit in 1 semester={(1 credit x 170 minutes x 14 weeks)/60 minutes}=39.67 hours. Each ECTS equals with 25 hours therefore 1 credit in 1 semester equals 1.59 ECTS.