

## MODULE HANDBOOK

Module Name	Mono-function Organic Compound
Module Level	Bachelor
Abbreviation, if applicable	8420403164
Sub-heading, if applicable	-
Course included in the module, if applicable	-
Semester/term	3 <sup>rd</sup> /Second year
Modul coordinator(s)	Dr. Ismono M.S.
Lecturer(s)	Dra. Nurul Hidayati, M.Si. Dr. Mitarlis, S.Pd., M.Si. Dr. Rinaningsih, M.Pd.
Language	Bahasa Indonesia
Classification within the curriculum	Compulsory Course
Teaching format/class hours per week during the semester	3 hours lectures (50 min / hour)
Workload	1 CU for bachelor degree equals to 3 workhours per week or 170 minutes (50' face to face learning, 60' structured learning, and 60' independent learning). In one semester, courses are conducted in 14 weeks (excluding mid and end-term exam). Thus, 1 CU equals to 39.67 workhours per semester. One CU equals to 1.59 ECTS.
Credit point	3 CU = 3 x 1.59 = 4.77 ECTS
Perquisite Course(s)	-
Targeted learning outcomes:	<p>CLO 1 Students can use information based on experience and cases in everyday life, other learning resources, and ICT to support understanding of the concept of monofunctional compound with discussions, presentations, and collaboration to study Organic Chemistry 1: Monofunctional Compound.</p> <p>CLO 2 Students have knowledge about structure theory of organic compound, by doing scientific process skills, critical, analytical, and creative thinking skills, as well as problems solving skills.</p> <p>CLO 3 Having a responsible attitude by applying an understanding of learning material in the organic chemistry 1 (monofunctional compound) about the properties of compounds in implementation in everyday life.</p> <p>CLO 4 Students be able to participate in society and have a commitment to developing self-potential in order to build character to achieve organizational goals.</p>

Content:	<ol style="list-style-type: none"> <li>1. <b>Introduction:</b> Definition of organic compound, structure theory and the properties of organic compounds.</li> <li>2. The structure, nomenclature, isomers, and properties and synthesis of alkanes, alkenes and alkyne compounds.</li> <li>3. The structure, nomenclature and properties of aromatic hydrocarbons and the application of substitution reactions for the synthesis of other compounds.</li> <li>4. The structure, nomenclature, properties and synthesis of alkyl halogenides.</li> <li>5. Stereochemistry theory includes: geometric isomers in alkenes, geometric isomers in cyclic compounds, conformation of open-chain compounds, cyclic compound forms, cyclohexane conformers.</li> <li>6. Structure, nomenclature, classification of properties, differences and similarities as well as the synthesis of alcohol - phenol - ether compounds.</li> <li>7. Structure, nomenclature, properties and is able to predict isomers and can synthesize carbonyl compounds</li> <li>8. Structure, nomenclature, isomers, properties especially acidity and synthesis of carboxylic acids and their derivatives</li> <li>9. Structure, nomenclature, isomers, properties and synthesis of amine compounds.</li> </ol>
Study / exam achievements:	<p>Students are considered to be competent and pass if at least get 55.</p> <p>Final score is calculated as follows: 20% participation + 30% assignment + 20% middle exam (UTS) &amp; 30% final exam (UAS)</p> <p>Table index of graduation:</p> <ul style="list-style-type: none"> <li>• A = 4 (85 ≤ - &gt;= 100)</li> <li>• A- = 3,75 (80 ≤ - &lt; 85)</li> <li>• B+ = 3,5 (75 ≤ - &lt; 80)</li> <li>• B = 3 (70 ≤ - &lt; 75)</li> <li>• B- = 2,75 (65 ≤ - &lt; 75)</li> <li>• C+ = 2,5 (60 ≤ - &lt; 65)</li> <li>• C = 2 (55 ≤ - &lt; 60)</li> <li>• D = 1 (40 ≤ - &lt; 55)</li> <li>• E = 0 (0 ≤ - &lt; 40)</li> </ul>
Media:	Computer, LCD, White board, chemicals and equipment in laboratory for doing practicum
Learning Methods	Individuals assignment, group assignment, discussion, presentation, and practicum

References:	<ol style="list-style-type: none"><li data-bbox="662 197 1419 268">1. Fessenden, Ralph J. and Fessenden, Joan S. 1995. <i>Organic Chemistry</i>, Fifth Edition.</li><li data-bbox="662 275 1419 346">2. Solomons G., TW. 2011. <i>Organic Chemistry</i> tenth edition. New York: John Wiley &amp; Sons Inc.</li><li data-bbox="662 352 1419 424">3. The article which is related to the topic of monofunctional compounds from website resources</li></ol>
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