

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 rd /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	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 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"> Introduction: Definition of organic compound, structure theory and the properties of organic compounds. The structure, nomenclature, isomers, and properties and synthesis of alkanes, alkenes and alkyne compounds.

	<ol style="list-style-type: none"> 3. The structure, nomenclature and properties of aromatic hydrocarbons and the application of substitution reactions for the synthesis of other compounds. 4. The structure, nomenclature, properties and synthesis of alkyl halogenides. 5. Stereochemistry theory includes: geometric isomers in alkenes, geometric isomers in cyclic compounds, conformation of open-chain compounds, cyclic compound forms, cyclohexane conformers. 6. Structure, nomenclature, classification of properties, differences and similarities as well as the synthesis of alcohol - phenol - ether compounds. 7. Structure, nomenclature, properties and is able to predict isomers and can synthesize carbonyl compounds 8. Structure, nomenclature, isomers, properties especially acidity and synthesis of carboxylic acids and their derivatives 9. Structure, nomenclature, isomers, properties and synthesis of amine compounds. 										
Study / exam achievements:	<p>Students are considered to complete the course and pass if they obtain at least 40% of maximum final grade. The final grade (NA) is calculated based on the following ratio:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Assessment Components</th> <th>Percentage of 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> </tbody> </table>	Assessment Components	Percentage of contribution	Participation	20%	Assignment	30%	Mid-semester test	20%	Final semester test	30%
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Final semester test	30%										
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"> 1. Fessenden, Ralph J. and Fessenden, Joan S. 1995. <i>Organic Chemistry</i>, Fifth Edition. 2. Solomons G., TW. 2011. <i>Organic Chemistry</i> tenth edition. New York: John Wiley & Sons Inc. 3. The article which is related to the topic of monofunctional compounds from website resources 										
Notes:	*1 CU 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.
	**1 CU = 1.59 ECTS according to Rector Decree Of Universitas Negeri Surabaya No. 598/Un38/Hk/Ak/2019