MODULE HANDBOOK

Modul Name	Organic Synthetic
Module Level	Bachelor of Chemistry
Abbreviation, if applicable	4720103165
Sub-heading, if applicable	-
Course included in the module, if applicable	-
Semester/term	6th/ Third year
Modul coordinator(s)	Prof. Dr. Suyatno, M.Si. (C1), Prof. Dr. Tukiran, M.Si. (C1)
Lecturer(s)	Prof. Dr. Suyatno, M.Si. (C1), Prof. Dr. Tukiran, M.Si. (C1)
Language	Indonesian Language
Classification within the curriculum	Compulsory Course
Teaching format/class hours per week during the semester	2 hours lectures (50 min / hour)
Workload	2 x 50 minutes lectures, 2 x 60 minutes structured activity, 2 x 60 minutes individual activity, 14 weeks per semester, 79,33 total hours per semester ~ 3.18 ECTS**
Credit point	2 CU x 1.59 = 3.18 ECTS
Requirement	Monofunction Organic Compounds and Polyfunction Organic Compound
Learning Outcomes	**General Competence (knowledge)**: Student can conclude functionalitation of functional group, functional group interconvertion, formation of carbon-carbon bond and carbon-heteroatom bond, target molecule, sinton and disconection approach, syntesis strategy, protective group, chemoselective and stereoselective reaction. **Spesific Competence** : At the end of the lecture, students can conclude functionalitation of functional group, functional group interconvertion, formation of carbon-carbon bond and carbon-heteroatom bond, target molecule, sinton and disconection approach, syntesis strategy, protective group, chemoselective and stereoselective reaction.
Content	Course materials discuss the understanding of functionalitation of functional group, functional group interconvertion, formation of carbon-carbon bond and carbon-heteroatom bond, target molecule, sinton and disconection approach, syntesis strategy, protective group, chemoselective and stereoselective reaction.
Study/exam achievements	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:

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<tr><th>Assessment Components</th><th>Percentage of contribution</th></tr>
<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>
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<tr><td>Media:</td><td>Computer, LCD, White board</td></tr>
<tr><td>Learning Methods</td><td>Lectures, discussion, problem solving, assignment</td></tr>
<tr><td>Literature</td><td>

Carruthers, W. & Coldam, I. (2004). Modern Methods of Organic Synthesis. 4th Ed. New York: Cambridge University Press.
Fessenden, R.J. dan Fessenden, J.S. (1998). Kimia Organik. Jilid 1 dan 2. Penerjemah AH Pudjaatmaka. Jakarta: Erlangga.
Michael B. Smith, M.B. & March, J. (2007). March’s Advanced Organic Chemistry, Reaction, Mechanism, and Structure, 6th ed. New Jersey: Jonh Wiley and Son, Inc.
Solomon, T.W.G. & Fryhle, C.B. (2011). Organic Chemistry. New York: John Wiley & Sons, Inc.
Tukiran dan Suyatno (2018). Sintesis Kimia Organik. Surabaya: Unesa University Press.
Warren, S. & Wyatt, P. (2008). Organic Synthesis: the Disconnection Approach. 2nd Ed. London: John Wiley and Sons, Inc

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<tr><td rowspan="2">Notes:</td><td>*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.</td></tr>
<tr><td>**1 CU = 1,59 ECTS according to Rector Decree Of Universitas Negeri Surabaya No. 598/UN38/Hk/Ak/2019</td></tr>
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