MODULE HANDBOOK

Module Name	Organic Polymer Chemistry
Module Level	Bachelor
Abbreviation, if applicable	3074112079
Sub-heading, if applicable	-
Course included in the module, if applicable	-
Semester/term	8th/ Fourth year
Module coordinator(s)	Dr. Ismono, M.S.
Lecturer(s)	Dr. ismono, M.S. Prof. Dr. Titik Taufikurohmah, M.Si.
Language	Indonesian Language
Classification within the curriculum	Elective 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
Prerequisite course(s)	Monofunction Organic Compounds and Polyfunction Organic Compound
Targeted Learning Outcomes	CLO 1: Able to use the learning resources and ICT to support learning related to polymers and implementation of polymers in everyday life. CLO 2: Mastering the knowledge of polymers, and implementation of polymers in everyday life. CLO 3: Able to make decisions in determining the positive and negative aspects of the role of polymers in everyday life CLO 4: Demonstrate a responsible by implementing the positive impact and how to overcome the negative impact of using polymers in everyday life
Content	This course discusses polymer classification, reaction mechanisms and polymer kinetics, ionic addition polymers and free radicals, condensation polymers, determination of polymer molecular mass, polymer solubility, polymer structure and stereochemistry, copolymer reactions, and polymer implementation in everyday life and industry.
Attribute Soft skill:	Active communication; Disipline; Collaboration; Responsibility; and Argumentation in class and outdoor setting

<table>
<tr><td>Study/exam achievements</td><td>Students are considered to complete the course and pass if they obtain at least 40% of the maximum final grade. The final grade (NA) is calculated based on the following ratio:
<table>
<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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Grade Conversion of 0-100 scale into 0-4 scale is set as below:
<table>
<tr><th>Letter</th><th>Number</th><th>Grade interval</th></tr>
<tr><td>A</td><td>4.00</td><td>85 ≤ A ≤ 100</td></tr>
<tr><td>A-</td><td>3.75</td><td>80 ≤ A- <85</td></tr>
<tr><td>B+</td><td>3.50</td><td>75 ≤ B+ < 80</td></tr>
<tr><td>B</td><td>3.00</td><td>70 ≤ B < 75</td></tr>
<tr><td>B-</td><td>2.75</td><td>65 ≤ B- < 70</td></tr>
<tr><td>C+</td><td>2.50</td><td>60 ≤ C+ < 65</td></tr>
<tr><td>C</td><td>2.00</td><td>55 ≤ C < 60</td></tr>
<tr><td>D</td><td>1.00</td><td>40 ≤ D < 55</td></tr>
<tr><td>E</td><td>0.00</td><td>0 ≤ E < 40</td></tr>
</table></td></tr>
<tr><td>Media</td><td>Computer, LCD, Whiteboard</td></tr>
<tr><td>Learning Methods</td><td>Lecture using: Student-centered approach; project-based learning; and discussion; and presentations (structured activities)</td></tr>
<tr><td>Literature</td><td>1. Dove, Peter, A., Stefan, N., Sardon, H. 2019. Organic catalysis for polymerisation. Royal Society of Chemistry. Germany.
2. Akay, M. 2012. Introduction to Polymer Science and Technology, 1st Ed. http://bookboon.com/en/introduction-to-polymer-science-and-technology-ebook.
3. Han, C.D., Sup-L., Kobayashi. 2011. Polymer Materials: Block-Copolymers, Nanocomposites, Organic/Inorganic Hybrid, Polymethylenes.Springer-Verlog Berlin Heidelberg. Germany.</td></tr>
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	4. Mark, J.E. (2007), *Physical Properties of Polymers Handbook*,http://link.springer.com/book/10.1007%2F978-0-387-69002-5 5. Idol, J.D. & Richard L. Lehman, R.L. (2004), *Polymer*, CRC Press, Boca Raton, London, New York, Washington DC, http://amipp.rutgers.edu/assets/documents/scholarlypubs/Polymers.pdf
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 the Year 2015 jo. the Regulation of Indonesia Ministry of Research, Technology, and Higher Education No. 50 the Year 2018.
	**1 CU = 1,59 ECTS according to Rector Decree Of Universitas Negeri Surabaya No. 598/UN38/Hk/Ak/2019