UNIVERSITAS NEGERI JAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
CHEMISTRY STUDY PROGRAM

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Bachelor in Chemistry **MODULE HANDBOOK**

Module name:	Polymer Chemistry
Module level, if applicable:	Undergraduate
Code:	33250562
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	6th
Module coordinator:	Dr. Fera Kurniadewi, M.Si.
Lecturer(s):	Dr. Yusmaniar, M.Si
Language:	Indonesia
Classification within the curriculum:	Elective Courses in the third year (6th semester) Bachelor Degree
Class Size	20
Type of Teaching	In class activity : Team Based Project and Project-based Learning Structured activity : Group Discussion using Worksheet Independent activity : Individual task
Teaching format / class hours per week	Learning activity can be carried out in the form of : 1. Lecture or students response a. Face to face : 50 minutes/SKS b. Structured activity : 60 minutes/SKS c. Independent activity : 60 minutes/SKS
Workload:	1 CU (SKS) for bachelor degree equal to 4 work hours per week or 170 minutes. 2x50 minutes face to face, 2x60 minutes structured tasks, 2x60 minutes independent learning, for 16 weeks (including midterm and final examination), a total of 181 hours/semester.
Credit points:	2 SKS (3 ECTS)
Prerequisite course(s):	1. Basic Chemistry I 2. Basic Chemistry II

<table>
<tr><td>Course Outcomes :</td><td>After taking this course the students have ability to:
CLO1.Classification of polymer compounds, as well as the history of polymer development
CLO2. Describe polymerization reaction
CLO3. explaint process copolymerization, composition and type copolymer
CLO4. Describe the method/steps for characterizatio of Polymer</td></tr>
<tr><td>Content</td><td>1. Polymer classification and history, Basic Concepts of Polymer Science
2. Polymerization Reaction
3. Copolymerization
4. Measurement of Molecular Weight and Size
5. Analysis and Testing of Polymers</td></tr>
<tr><td>Study/exam achievements:</td><td>Examinations are conducted as Unit Tests. There are two-unit tests, each covers 4-5 chapters. The final marks are derived from unit tests (70%) and structured tasks (30%).
<table>
<tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Techniques</th><th>Weight</th></tr>
<tr><td>1.</td><td>CLO 1-4</td><td>Mid Test</td><td>Written test</td><td>40%</td></tr>
<tr><td>2.</td><td>CLO 5-7</td><td>Final Test</td><td>Project Base assignment</td><td>60%</td></tr>
<tr><td colspan="3"></td><td>Total</td><td>100%</td></tr>
</table></td></tr>
<tr><td>Media</td><td>LMS, Zoom, Google Classroom, Google Meet, Microsoft Teams</td></tr>
<tr><td>Literatures</td><td>1. Billmeyer, F.W. (1984) Textbook of Polymer Science, 3rd ed., John Wiley & Sons, New York.
2. Teegarden, D. (2004) Polymer Chemistry - Introducation to an Indispensable Science. 1st ed., NSTA Press, Virginia.
3. Chanda, M. (2013) Introduction to Polymer Science and Chemistry – A Problem Solving Approach, 2 nd ed. CRC Press, New York</td></tr>
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PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CO1						v						
CO2						v						
CO3						v						
CO4						v						