



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

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**Bachelor in Chemistry**

**MODULE HANDBOOK**

Module name:	Separation Chemistry
Module level, if applicable:	Undergraduate
Code:	33250233
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	4 <sup>th</sup>
Module coordinator:	Dra. Tritiyatma H., M.Si.
Lecturer(s):	1. Dra. Tritiyatma H., M.Si. 2. Prof. Dr. Erdawati, M.Sc. 3. Yussi Pratiwi, M.Sc.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Courses in the second year (4 <sup>th</sup> semester) Bachelor Degree
Class Size	40
Type of Teaching	In class activity : Team Based Project and Project based Learning Structured activity : Group Discussion using WorkSheet
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. 3x50 minutes face to face, 3x60 minutes structured tasks, 3x60 minutes independent learning, for 16 weeks (including midterm and final examination), a total of 135,99 hours/semester.
Credit points:	3 SKS (4.5 ECTS)
Prerequisite course(s):	Basic Chemistry I and II, Qualitative and Quantitative Analytical Chemistry.
	After taking this course the students have ability to: CLO 1. Able to understand the basic concepts of chemical separation CLO 2. Choose the type of distillation method according to the

Course Outcomes:	nature of the substance to be separated CLO 3. Choose the type of extraction method according to the nature of the substance to be separated CLO 4. Choose the type of chromatographic method according to the nature of the substance to be separated CLO 5. Predicting good separation conditions based on the principle of electrolysis																					
Content:	1. Basics of separation 2. Distillation 3. Extraction 4. Chromatography 5. Electrolysis																					
Study/exam achievements:	Examinations are conducted as Unit Tests. There are two unit tests, each covers 4-5 chapters. The final marks are derived from unit tests (80%) and structured tasks (20%). <table border="1" data-bbox="570 732 1352 1268"> <thead> <tr> <th>No</th> <th>CO</th> <th>Assesment Object</th> <th>Assessment Techniques</th> <th>Weight</th> </tr> </thead> <tbody> <tr> <td rowspan="4">1</td> <td rowspan="4">CLO 1-5</td> <td>a. Individual assignments 1</td> <td rowspan="4">Written test</td> <td>10%</td> </tr> <tr> <td>b. Individual assignments 2</td> <td>10%</td> </tr> <tr> <td>c. Mid Test</td> <td>40%</td> </tr> <tr> <td>d. Final Test</td> <td>40%</td> </tr> <tr> <td colspan="4">Total</td> <td>100%</td> </tr> </tbody> </table>	No	CO	Assesment Object	Assessment Techniques	Weight	1	CLO 1-5	a. Individual assignments 1	Written test	10%	b. Individual assignments 2	10%	c. Mid Test	40%	d. Final Test	40%	Total				100%
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		d. Final Test		40%																		
Total				100%																		
Media	Power point presentation, Laptop, Whiteboard, Zoom, Google Classroom, Ms. Teams																					
Literatures	1. R.P. Budhiraja. 2006. <i>Separation Chemistry Third Edition</i> . New Age International Publishers																					

### PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CO1						v						
CO2						v						
CO3						v						
CO4						v						
CO5						v						