UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF CHEMISTRY
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Bachelor of Science in Chemistry **MODULE HANDBOOK**

Module name:	Medicinal Chemistry
Module level, if applicable:	Undergraduate
Code:	KMA 6234
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	6th
Module coordinator:	Prof. Dr. Nurfina Aznam, Apt.S.U
Lecturer(s):	Prof. Dr. Nurfina Aznam, Apt.S.U
Language:	Bahasa Indonesia
Classification within the curriculum:	Elective Course
Teaching format / class hours per week during the semester:	Lectures: 100 minutes lectures, 120 structured activities and 120 individual study per week
Workload:	Total workload of the activity is 90,67 hours per semester which consists of 100 minutes lectures, 120 structured activities and 120 individual study per week for 16 weeks
Credit points:	2 SKS (3 ECTS)
Prerequisites course(s):	-
Course Outcomes	After taking this course, the students have ability to:

<table>
<tr><td></td><td>CO1. explain about isolation and identification of active compounds in plants that have been used empirically for treatment
CO2. Explain about synthesis of analogous structures from basic forms of compounds which have potential treatment activities.
CO3. describe how to finding new parent structures by means of synthesis of organic compounds, with or without contact with natural active substances
CO4. Explain about the Linking of the chemical structure with the way drugs work.
CO5. Explain about how develop drug designs
CO6. Explain about how develop the relationship of chemical structures and biological activities through physical chemical properties with the help of statistics.</td></tr>
<tr><td>Content:</td><td>This course studies about the working relationship of drugs, the relationship between chemical structure and biological activity of biodynamics through physical properties and chemical reactivity of compounds.</td></tr>
<tr><td>Study / exam achievements:</td><td>The final mark will be weight as follow:

<table>
<tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr>
<tr><td rowspan="6">1</td><td rowspan="6">CO1, CO2, CO3, CO4, CO5, CO6.</td><td>Attitude and activity</td><td>Observation</td><td rowspan="6">30%</td></tr>
<tr><td>Structural assignment: ability to rasionalize and describing</td><td rowspan="4">Assignment, Presentation, discussion</td></tr>
<tr><td>Structural assignment: ability to applying the formula according to context</td></tr>
<tr><td>Structural assignment: ability to collaborate, analyze, rasionalize, and communicate</td></tr>
<tr><td>Individual assignment: skill to collect literacy, understanding, and describing</td><td>Assignment</td></tr>
<tr><td></td><td></td><td>Mid term exam</td><td>Written test</td><td>30%</td></tr>
<tr><td></td><td></td><td>Final exam</td><td>Written test</td><td>40%</td></tr>
<tr><td colspan="4">Total</td><td>100%</td></tr>
</table>
</td></tr>
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Forms of media:	Board, LCD Projector, Video, handouts, PPT slides, and stationaries
Reference:	A. Siswandono, S., 2016, Kimia Medisinal, Edisi-2, Airlangga University Press B. Ekinci, D, et al., 2012, Medicinal Chemistry and Drug Desain, , Published by InTech. C. Thomas, G., 2003, Fundamentals of Medicinal Chemistry, John willey and Sons Ltd

PLO and CO mapping

CO	PLO									
	Attitude	Generic Skills		Knowledge				Specific Skills		
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10
CO1						✓		✓		
CO2						✓		✓		
CO3						✓		✓		
CO4						✓		✓	✓	
CO5						✓		✓	✓	
CO6						✓		✓	✓	