UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF CHEMISTRY EDUCATION
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Bachelor of Education in Chemistry **MODULE HANDBOOK**

Module name:	**Pharmaceutical Chemistry**
Module level, if applicable:	Undergraduate
Code:	KIM 6215
Sub-heading, if applicable:	-
Classes, if applicable:	1
Semester:	Even
Module coordinator:	Sukisman Purtadi, M.Pd.
Lecturer(s):	Prof. Dr. Nurfina Aznam. SU.
Language:	English
Classification within the curriculum:	Elective Course
Teaching format / class hours per week during the semester:	Lectures: 100 minutes lectures, 120 minutes structured activities and 120 minutes individual study per week
Workload:	Total workload of the activity is 136 hours per semester which consist of 100 minutes lectures, 120 minutes structured activities, 120 minutes individual study per week.
Credit points:	2SKS (3.28 ECTS)
Prerequisites course(s):	Basic Organic Chemistry
Course Outcomes	After taking this course the students are expected to be able to: CO1. demonstrate an attitude of responsibility and independence in carrying out the given tasks CO2. master concepts in pharmaceutical chemistry including drug limits, drug forms, drug classifications, drug use methods, drug biopharmaceutical aspects, main effects and side effects of drug use, drug structure interactions - receptors, chemical structure of drug molecules and their biological activities, drug analgesics, and central nervous system suppression drugs CO3. make appropriate decisions in solving problems related to the compositions, methods of use, and the main effects and side effects of the drugs collaboratively
Content:	This course discusses the concepts of drug limits, drug forms, drug classifications, drug use methods, drug biopharmaceutical aspects, main effects and side effects of drug use, drug structure interactions - receptors, chemical structure of drug molecules and their biological activities, drug analgesics, and central nervous system suppression drugs.
Study/exam achievements:	Attitude assessment is carried out at each meeting by observation and / or self-assessment techniques using the

<table>
<tr><td></td><td>assumption that basically every student has a good attitude. The student is given a value of very good or not good attitude if they show it significantly compared to other students in general. The result of attitude assessment is not a component of the final grades, but as one of the requirements to pass the course. Students will pass this course if at least they show a good attitude. The final mark will be weighted as follows:
<table>
<tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr>
<tr><td>1</td><td>CO1, CO2 and CO3</td><td>Performance
Individual and Group Assignment
Mid-term Exam
Final Exam</td><td>Observation
Presentation / written test</td><td>10%
30%

30%
30%</td></tr>
<tr><td colspan="4">Total</td><td>100%</td></tr>
</table></td></tr>
<tr><td>Forms of media:</td><td>Board and Board markers, LCD Projector, Laptop/Computer, Modules</td></tr>
<tr><td>References:</td><td>Handbooks:
A. Barber, J. & Rostron, C. 2013. Pharmaceutical Chemistry: Oxford University Press.
B. Nurfina Aznam Nugroho dan Eddy Sulistyowati. 2001. Kimia Farmasi. Jakarta :Pusat Perbitan Universitas Terbuka.
C. Eddy. 1999. Diktat : Obat dan Pengaruhnya Terhadap Tubuh Manusia.

Suggested Readings:
A. Foye. W. O. 1981. Principle of Medicinal Chemistry, 2nd edition. Philadelphia : Lea & Febiger
B. Moh. Anief. 1990. Perjalanan dan Nasib Obat dalam Badan. Yogyakarta: Gadjah Mada University Press.
C. Moh. Anief. 1991. Apa yang Perlu Diketahui Tentang Obat. Yogyakarta : Gadjah Mada University Press.
D. Rasyid. R. dkk (penerjemahan). 1995. Prinsip – Prinsip Kimia Medisinal. Jilid 1 Edisi 2. Yogyakarta : Gadjah Mada University Press.
E. Samhoedi, Moch. R. Molecular / Chemical Pharmacology. Yogyakarta: Fakultas Farmasi Universitas Gadjah Mada.
F. Tan Hoan Tjay. 1991. Obat – Obatan Penting, Khasiat Penggunaan dan Efek – Efek Sampingnya. Jakarta : Departemen Kesehatan RI.</td></tr>
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PLO and CO mapping

	PLO					
	Attitude		Knowledge	Specific Skill	General Skill	
	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6
CO1	√					
CO2			√			
CO3						√