

UNIVERSITY OF KRAGUJEVAC	
Faculty of Medical Sciences	
S Y L L A B U S	
Programme	Pharmacy
Course Name and Code	Pharmaceutical Chemistry 1, B06
Course Structure (lectures, seminars)	Lectures 1.30 hours and practicles 1.30 hours, per week
Year of Study	Second year
Academic Year	2020/2021
Semester	Fourth (summer) semester
ECTS Credits and Course Status (mandatory or elective)	6 ECTS
Instructor(s)	Nevena Jeremic, Assistant Professor Milos Nikolic, Assistant Professor Ana Stankovic, Teaching Assistant Nikola Nedeljkovic, Teaching Assistant
Course Requirements	Knowledge of Organic Chemistry
Course Aims	After completing the course, students will be able to: identify and describe the connection between chemical structure and physical-chemical properties; to recognize main functional groups and its properties; to describe the interaction between ligand and receptor; to get familiarity with the chemical nature and how changes in chemical structure of some drug directly affect its pharmaceutical characteristics. The knowledge from this course is the basis for the following courses: Pharmaceutical chemistry 2 and Pharmacology.
Course Overview	This course includes theoretical studies in the field of Pharmaceutical Chemistry and provides an insight of pharmacologically active molecules and their look as chemical compounds. Analyses of chemical structures of pharmaceutical important class of drugs and functional groups within them. The action and behavior of pharmaceutical compounds through overlook of main characteristics of its functional groups and the relationship between their structure and their chemical and therapeutic properties. Structure-activity relationships will be explained through examples and case studies.
Grading System (including segment percentage)	10 – excellent (91-100), 9 – exceptionally good (81-90), 8 – very good (71-80), 7 – good (61-70), 6 – passing (51-60), 5 – failing (0-50). Test 1: 20%, Test 2: 20%, Test 3: 20%, Final written exam: 40%.

Textbooks and Mandatory Reading	<ol style="list-style-type: none"> 1. Essentials of Pharmaceutical Chemistry, Third Edition, Donald Crains; London, Chicago: Pharmaceutical Press; 2008 2. Pharmaceutical Chemistry II, Sote Vladimirov; Faculty of Pharmacy, Belgrade; 2006
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CLASS SYLLABUS:

<i>Lecture</i>	<i>Topics</i>
1 st	Introduction to pharmaceutical chemistry
2 nd	Functional groups in chemistry
3 rd	Steroid hormones and other compounds with steroid structure
4 th	Peptide hormones
5 th	Antibiotics with beta-lactam ring
6 th	Antibiotics with peptide structure
7 th	Tetracycline
8 th	Quinolones
9 th	Aminoglycozide antibiotics
10 th	Macrolide antibiotics
11 th	Antitubercolytics
12 th	Antifungals
13 th	Antiparasitics
14 th	Vitamins
15 th	Minerals