
	UNIVERSITY OF BANJA LUKA FACULTY OF MEDICINE			
	UNDERGRADUATE STUDIES			
	Study Programme of	MEDICINE		
Course Unit Name	Chemistry in Medicine			
Type of Course Unit	General Education			
Course Unit Code	Course Unit Status	Semester	Class Workload	Number of ECTS
	ELECTIVE	II	1L+1P	2
Members of Staff	Prof. Dr Snežana Uletilović			
Eligibility Requirements			Form of Requirements	
There are no requirements for registration, attendance and examination				
Goals of the Course Unit				
Acquiring knowledge in fields of chemistry which are relevant to the understanding biochemistry, getting to know current topics in cell chemistry. The largest portion of the theoretical and seminar classes is dedicated to organic chemistry of the biomolecules which are relevant to processes taking place in biological systems. Acquiring knowledge on basic electrochemical processes, kinetics, energetic changes in these processes, and their application to the biological system.				
Learning Outcomes (knowledge acquired):				
Implementation of acquired knowledge for facilitated understanding of biochemical reactions and metabolic changes. Ability to explain underlying mechanisms for chemical reactions relevant to processes taking place within cells and knowledge of the unity of chemical processes in living and non-living matter. Seminar classes define and describe selected groups of molecules which have some biological activity or have been applied in medicine, while at the same time developing writing and speaking skills during expositions on suitable topics.				
Contents of the Course Unit:				
Reactivity and classification of organic compounds Organic compounds that contain oxygen Organic compounds that contain nitrogen and sulphur Heterocyclic compounds Nucleic acids, structure and various shapes of the DNA molecule				
Teaching Methods:				
Theoretical training, seminars and office hours.				
Literature:				
1. Essentials of Pharmaceutical Chemistry, Donald Cairns, 2008 2. Organic Medicinal and Pharmaceutical Chemistry, John M. Beale, John H. Block, 2011 3. Medicinal Chemistry, Gareth Thomas, 2007				
Examination Form:				
Pre-Exam Duties		Final Exam		Total Points
Attendance	10	Oral / Written	50	100
Midterms	10			
Seminar paper	30			
Note for the Course Unit:				
Syllabus Designer: Prof. Dr Snežana Uletilović				