

Study Program: Biology				
Type and level of studies: Bachelor studies				
Course name: Chemistry				
Lecturer: Dragana M. Sejmanović				
Status: Compulsory				
ECTS: 5				
Attendance prerequisites: none				
<b>Course aims</b> The students should acquire the knowledge necessary for understanding facts, principles, and theories of studying the chemistry of biological systems.				
<b>Course outcome</b> The students have acquired the basic knowledge about general, inorganic and organic chemistry through lectures and laboratory exercises and are able to follow the upcoming courses.				
<b>Course content</b> <i>Theoretical part</i> Fundamental laws of chemistry and atom structure. Ionic, covalent and coordinate bond. Metallic bond. Hydrogen bond and its significance for the structure of some biologically significant substances. Chemical kinetics and chemical equilibrium. Thermochemistry. Dissolve. Classification of inorganic compounds. Electrolytes and equilibria in electrolyte solutions. Oxidoreduction reactions. Chemical elements and their compounds by groups. Introduction to organic chemistry. Classification of organic compounds. Hydrocarbons and halogen derivatives of hydrocarbons. Alcohols, ethers and phenols. Aldehydes and ketones. Carboxylic acids and their derivatives. Amine. Carbohydrates. Lipids. Amino acids and proteins. Nucleic acids. Nucleotides and nucleosides. <i>Practical part: Exercises, Other forms of teaching, Study research work</i> During practical classes, students have the opportunity to practically get to know and adopt knowledge from the material that is prezented in lectures.				
<b>Literature</b> 1. С. Арсенијевић, Општа и неорганска хемија, Научна књига, Београд, 2001. 2. П. Волхарт, Органска хемија. Хајдиграф, 1997. 3. П. Карлсон, Биохемија, Штутгарт, 1974. 4. Р. Нолер, Хемија органских спојева, Школска књига, Загреб, 1990. 5. Стојанковић, Димитријевић, Андрејевић, Органска хемија, Медицинска књига, Београд, 1997.				
<b>Number of active classes</b>				Other classes
Lectures: 2	Practical classes: 2	Other forms of teaching:		
<b>Teaching methods</b> Lectures, experimental exercises, practical classes.				
<b>Assessment (maximum 100 points)</b>				
<b>Course assignments</b>	<b>points</b>	<b>Final exam</b>	<b>points</b>	
activity during lectures	5	written exam		
practical classes	15	oral exam	60	
term test(s)		.....		
seminar(s)	20			