

Study program: Master Chemist - Research and Development			
Type and level of studies: Master academic studies			
Course unit: Bioinorganic Chemistry			
Teacher in charge : prof. dr Srecko Trifunovic			
Language of instruction (<i>English or other foreign language</i>) Serbian			
ECTS: 10			
Prerequisites: entered the first year			
Semester (<i>Winter Semester or Summer Semester</i>) Winter Semester			
Course unit objective Course objectives are to teach students the knowledge and skills that will enable them to supplement their knowledge of inorganic, organic and biochemistry and to establish a proper relationship to inorganic substances have specific biological and pharmacological significance.			
Learning outcomes of Course unit Knowledge gained in this course will enable students to take a stand on compounds that surround them and will know istivremeno chemical and physiological behavior of inorganic compounds in the cell and the organism as a whole. Students will master the techniques and skills laboratoriskog work of preparing individual preparation of biological and physiological significance. Rationality (choice of rational amounts of reactants, ...), logic (causal connection method of Compound), accountability (using appropriate amounts of reactants, understanding the effect of the compound), the limits of their own knowledge (understanding that it is impossible to know everything and that they need information still available).			
Course unit contents <i>Theoretical classes</i> <i>Bioelement. Bioligands. The biological function of metals. Metalloenzymes that catalyze the hydrolysis processes. Metalloenzymes that catalyze oxidation-reduction processes. Transportation metals and their STORAGE. Metals and nematali in biology and medicine.</i> <i>Practical classes</i> The synthesis of some biologically important complex compounds, determine their structure and microbial activity.			
Literature 1. S. R. Trifunovic, Bioinorganic Chemistry, reviewed script Kragujevac Faculty of Science, 1998; Jacimirski, (translation.J. Vucetic) 2. Introduction to Bioinorganic Chemistry, Chemical Engineering, Belgrade, 1991; 3. W. Kaim, B. Schwederski, Bioinorganic Chemistry: Inorganic elements and the chemistry of life, Wiley, 2006. Additional literature: 4. Neograničeskaja biochemistry, Mir, Moscow, 1978.			
Number of active teaching hours			Other classes
Lectures: 30	Practice: 30	Other forms of classes: Independent work:	
Teaching methods			
Examination methods (maximum 100 points)			
Exam prerequisites	No. of points:	Final exam	No. of points:
Student's activity during lectures	5	oral examination	
practical classes/tests	5	written examination	40
Seminars/homework	30	
Project	20		
Other			

Grading system		
Grade	No. of points	Description
10	Excellent
9	Exceptionally good
8	Very good
7	Good
6	Passing
5	Failing

(Table 5.2) Course unit description