

COURSE DESCRIPTION

Academic year: 2026/2027	
University: Comenius University Bratislava	
Faculty: Faculty of Pharmacy	
Course ID: FaF.KChTL/07-Mgr-A/26	Course title: Selected Chapters in Inorganic Chemistry
Educational activities: Type of activities: lecture / seminar Number of hours: per week: 1 / 1 per level/semester: 14 / 14 Form of the course: on-site learning	
Number of credits: 2	
Recommended semester: 1.	
Educational level: I.II.	
Prerequisites:	
Course requirements: final evaluation: examination in form of the summary test A: 92,00 % – 100,00 %; B: 84,00 % – 91,99 %; C: 76,00 % – 83,99 %; D: 68,00 % – 75,99 %; E: 60,00 % – 67,99 %; Fx: 0,00 - 59,99 %. Scale of assessment (preliminary/final): 0/100	
Learning outcomes: The aim of the course is to apply basic knowledge of bioinorganic and biocoordination chemistry in the field of pharmacy.	
Class syllabus: Metal ions under in vivo conditions. Brief basics of coordination chemistry of metal complexes. Stereochemistry of coordination compounds. Which metal ions react with which ligands (creation of complexes). Biologically significant complex compounds. The role and importance of transitional metals in biological systems. Bioinorganic chemistry of oxygen. Trace element in living organisms – their deficiency and excess. Trace element supplementation. Antitumor activity of some metal complexes and their stereochemical requirements. Bioinorganic chemistry and its essential pharmaceutical applications.	
Recommended literature: 1. W. Kaim, B. Schwederski, A. Klein: Bioinorganic Chemistry - Inorganic Elements in the Chemistry of Life. 4th Edition, Wiley 2013. 2. E. Crabb, E. A. Moore: Metals and Life. RSC Publishing 2010 3. E.-I. Ochiai: Bioinorganic Chemistry. Elsevier 2008 4. G. A. Lawrance: Introduction to Coordination Chemistry. Wiley 2009	
Languages necessary to complete the course: English language	
Notes: The course is held only in winter semester.	

Past grade distribution						
Total number of evaluated students: 0						
A	ABS	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0	0,0
Lecturers: doc. Ing. Ladislav Habala, Dr.rer.nat., doc. Ing. Martin Pisárčík, CSc.						
Last change: 11.06.2026						
Approved by: prof. PharmDr. Ján Klimas, PhD., MPH						