COURSE DESCRIPTION

Academic year: 2023/2024

University: Comenius University Bratislava

Faculty: Faculty of Pharmacy

Course ID: FaF.KChTL/07-Mgr-A/19	**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: 90,01 % – 100,00 %; B: 82,01 % – 90,00 %; C: 74,01 % – 82,00 %; D: 66,01 % – 74,00 %; E: 60,01 % – 66,00 %; Fx: ≤ 60,00 %.
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: 55

A	ABS	B	C	D	E	FX
40,0	0,0	38,18	10,91	1,82	0,0	9,09

Lecturers: Ing. Ladislav Habala, PhD., doc. Ing. Martin Pisárčik, CSc.

Last change: 22.03.2024

Approved by: