



Course ID: HOA476	Course name: CHEMISTRY OF COMPLEX COMPOUNDS		
Cycle: FIRST	Year: FOURTH	Semester: VII	ECTS credits:3
Course status: MANDATORY	Total course hours: 45 Lectures: 30 Laboratory: 15		
Teaching participants:	Teachers and associates with expertise in the field of Inorganic Chemistry		
Prerequisite for enrollment:	-		
Course aims:	Learning basic concepts and theories from the chemistry of complex compounds.		
Thematic course units:	<ol style="list-style-type: none">1. Basic definitions, isomerism and nomenclature.2. Molecular symmetry and its application.3. Electronic structure of complex compounds. Crystal field theory.4. Ligand field theory. Molecular orbital theory.5. Influence of coordination on standard electrode potentials.6. Infrared spectra of complex compounds7. Electronic spectra of complex compounds8. Magnetic properties of complex compounds9. Methods of obtaining complex compounds10. Practical significance of metal complexes in engineering, catalysis and medicine. New trends.		
Learning outcomes:	After the course the student will be able to: <ul style="list-style-type: none">– name coordination compounds and write structural formulas– predict and interpret the structure of coordination compounds based on valence bond theory, crystal and ligand field theory and molecular orbital theory– predict and explain the spectroscopic and magnetic properties of coordination compounds– interpret and propose methods for the synthesis of coordination compounds– comment on the practical importance of coordination		

