



Course ID: HAH121	Course name: ANALYTICAL CHEMISTRY I		
Cycle: FIRST	Year: FIRST	Semester: II	ECTS credits: 8
Course status: MANDATORY		Total course hours: 105 Lectures: 45 Laboratory: 60	
Teaching participants:	Teachers and associates with expertise in the field to which the subject belongs		
Prerequisite for enrollment:	-		
Course aims:	The acquisition of basic knowledge and analytical laboratory skills in the field of qualitative analytical chemistry.		
Thematic course units:	<ul style="list-style-type: none">- Introduction, importance and role of analytical chemistry, the composition of the solution, the activity- Buffers, polyprotic systems, ampholytes, acid-base reaction predicting- Complex forming reactions, equilibriums in solutions of complexes- Important complex compounds, side reactions in equilibriums- Calculating in the solutions of the complexes, nature of metal ions and ligands- Precipitation reactions, solubility product- Side reactions and their impact on product solubility- The effect of the construction of the complexes on the solubility of the precipitate- The separation of hydroxides and sulfides- Redox reactions- Electrochemical reactions, calculation of electrode potentials- The equilibrium constant of redox reactions, side reactions in redox systems- Reactions with ion exchangers, ion exchange columns- Qualitative chemical analysis- Systematic qualitative analysis		
Learning outcomes:	Acquired basic knowledge and analytical laboratory skills in		

