

Level: Specialist academic studies of chemistry				
Course title: Acid-base equilibrium and methods of constant determination (DSH709)				
Status: elective				
ECTS: 15				
Requirements: None				
Learning objectives: To provide students with broad and up-to-date knowledge of acid-base equilibria.				
Learning outcomes: Students should be able to demonstrate and upgrade knowledge and understanding of the acid-base equilibria and relevant methods of acid-base equilibrium constant determinations.				
Syllabus <i>Theoretical instruction:</i> Equilibria in the solution of the weak organic bases. The influence of chemical structure on basicity. Bases with saturated, unsaturated and heterocyclic trivalent nitrogen in the structure. Basicity of oxygen containing organic compounds. Basicity of compounds with organic sulfur. Acidity outside the pH range. Functions of acidity. Equilibria in the solutions of weak organic acids. Influence of the chemical structure on the acidity. Basicity functions. Methods for determination of ionization constants: potentiometric, spectrophotometric, NMR, conductometric.				
Weekly teaching load				Other:
Lectures: 5	Exercises:	Other forms of teaching:	Student research: 5	