Level: PhD

Course title: Acid-Base Equilibrium and Methods of Constant Determination (DSH-709)

Status: Elective

ECTS: 15

Requirements: None

Learning objectives:
The aim of the course is to provide students with broad and up-to-date knowledge of acid-base equilibria.

Learning outcomes:
On successful completion of this course, students should be able to demonstrate advanced knowledge and understanding of the acid base equilibria and relevant methods of acid-base equilibrum constants determinations.

Syllabus
Theoretical instruction:
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 etc.

Weekly teaching load				Other:
Lectures: 5	Exercises:	Other forms of teaching:	Student research: 5	