Table 5.2 Course specification

Level: Bachelor
Course title: Physical Chemistry II
Status: obligatory
ECTS: 8
Requirements: none
Course aim • To provide students with the necessary theoretical and practical knowledge in selected areas of physical chemistry that will allow understanding and interpretation of physicochemical phenomena and processes • To train students to perform experiments and draw conclusions based on experimental results • To provide students' understanding of the content in the relevant fields of chemistry in continuing education and in further professional work.
Course outcome After successfully completing the course, the student is able to: Demonstrate acquiring necessary theoretical and practical knowledge from selected topics of physical chemistry which will enable understanding and explanation of physicochemical phenomena and processes. To provide an easier understanding of relevant fields of chemistry in further education or professional work.
Course content *Theory* Phase equilibria in binary systems. Colligative properties of solutions of electrolytes and nonelectrolytes. Thermodynamics of phase boundaries. Adsorption phenomena. Chemical equilibrium. Selected topics of chemical kinetics, catalysis, electrochemistry, colloidal chemistry and photochemistry. *Practice: Practical classes, OFT, SRW* Numerical problems solving. Laboratory work in the field of colligative properties of solutions, chemical equilibrium, adsorption, chemical kinetics, colloidal chemistry, and electrochemistry.
Literature 1. P.W. Atkins, Atkins'physical chemistry, New York: Oxford University Press, 2010 2. P.W. Atkins, Elements of physical chemistry, Oxford: Oxford University Press, 2005