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|---|-----------------|-------------------------------|-------------------|--------|
| <b>Level:</b> bachelor  |                 |                               |                   |        |
| <b>Course title:</b> Physical Chemistry II  |                 |                               |                   |        |
| <b>Status:</b> obligatory   |                 |                               |                   |        |
| <b>ECTS:</b> 8  |                 |                               |                   |        |
| <b>Requirements:</b> Physical Chemistry I pass  |                 |                               |                   |        |
| <b>Learning objectives</b><br>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.  |                 |                               |                   |        |
| <b>Learning outcomes</b><br>On completion of this course students should be able to:<br>- demonstrate the acquired theoretical knowledge on physicochemical principles and apply it to explanation of phenomena in real life<br>- set the experiments using standard laboratory procedures and explain the obtained results after graphical and mathematical interpretation of characteristic functions and constants |                 |                               |                   |        |
| <b>Syllabus</b><br><i>Theoretical instruction.</i> Phase equilibria in binary systems. Thermodynamics of phase boundaries. Adsorption phenomena. Chemical equilibrium. Selected topics of chemical kinetics, catalysis, electrochemistry, colloidal chemistry and photochemistry.<br><i>Practical instruction.</i> Laboratory work is consistent with delivered lectures.   |                 |                               |                   |        |
| <b>Weekly teaching load</b>   |                 |                               |                   | Other: |
| Lectures:<br>3  | Exercises:<br>3 | Other forms of teaching:<br>2 | Student research: |        |