

<b>Course title: Physical chemistry</b>					
	<b>Specialty</b>	<b>Semester</b>	<b>Number of ECTS</b>	<b>Number of hours in the class</b>	<b>Form</b>
	<b>Foreign students</b>	<b>summer</b>	<b>4</b>	<b>45</b>	<b>Lab class</b>
<b>Name of lecturer: Prof. Dr. hab. Jerzy Błażejowski</b>					
<b>Objective of the course (expected learning outcomes and competences to be acquired)</b>					
Skills of understanding and quantitative description of physical changes, chemical reactions, and the use of physico-chemical data in order to prepare for the study of other subjects, as well as the practical implementation of a variety of physical and chemical measurements, describing the results of these measurements and their critical interpretation					
<b>Prerequisites: Completed courses of General chemistry, Physics and Mathematics.</b>					
<b>Teaching methods: Lab classes – experiments</b>					
<b>Course contents:</b>					
Dissociation constant from spectroscopic measurements. Lambert-Beer law. Application of spectroscopic measurements. Spectroscopic instrumentation. Dipole moment determination. Polarizability and chemical bonds. Molar refraction. Chemical molecules in the electric field. Refraction index. Dielectrometer. Calorimetric measurements. Phase equilibria diagrams. Isotherms and isobars. Fractional distillation. Azeotropy. Sorption isotherms. Culometry. Conductivity. Electrodes, pH and potentiometric measurements. Energy of activation. Catalysis. Reaction temperature.					
<b>Recommended reading:</b>					
A. Primary literature:					
A.1. Literature used during classes:					
Monographic works provided by assistants leading classes					
B. Supplementary literature:					
Various academic handbooks concerning physical chemistry					
<b>Assessment methods: Test and reports</b>					
<b>Language of instruction: English</b>					