

<b>Course title: Principles of electrochemical methods</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. Tadeusz Ossowski</b>					
<b>Objective of the course (expected learning outcomes and competences to be acquired)</b>					
<ul style="list-style-type: none"> <li>• making students familiar with the basic concepts of electrochemical and electroanalytical methods,</li> <li>• making students familiar with the use of various electroanalytical methods for solving analytical problems,</li> <li>• development of skills necessary for conducting basic electroanalytical experiments,</li> <li>• making students familiar with the assessment of the measurement errors in electroanalytical methods</li> </ul>					
<b>Prerequisites:</b> Completed courses of General chemistry and Analytical chemistry.					
<b>Teaching methods:</b> Laboratory experiments					
<b>Course contents</b>					
Potentiometric measurements: types of electrodes, ion selective tools pH-metrics. Electrogravimetry: methods, micro- and macro elemental analysis. Conductivity measurements. Voltamperometry and polarography measurements. Measurement systems, Stripping. Titration analysis. Automation of measurements and computing of results. Results assessment. Error analysis in electrochemical measurements.					
<b>Recommended reading:</b>					
A. Primary literature: <ul style="list-style-type: none"> <li>A.1. Literature used during classes: <ul style="list-style-type: none"> <li>Monographic works provided by assistants leading classes</li> </ul> </li> </ul> B. Supplementary literature: <ul style="list-style-type: none"> <li>Various academic handbooks concerning electrochemistry</li> </ul>					
<b>Assessment methods:</b>					
<ul style="list-style-type: none"> <li>- Project</li> <li>- Written exam with open and closed questions</li> <li>- Mid-term tests</li> <li>- End-term test</li> </ul>					
<b>Language of instruction:</b> English					