

### Physical Chemistry

<b>Unit Title</b>	Physical Chemistry		
<b>Level of Study</b>	1-3 (1-Beginners, 2 – Medium, 3 - Advanced)		
<b>Credit Value</b>	100	<b>ECTS Value</b>	42
<b>Home Department</b>	Physical Chemistry		
<b>Home Faculty</b>	Chemistry		
<b>Unit Co-ordinator</b>	Dr. Irina L. Rakitianskaia		
<b>Key Words</b>	Energy, Rate of reaction, Electrochemical Potential, Phase Transition		
<b>Brief Summary</b>	<p>Learning of Physical Chemistry gives the student a good basis of understanding of chemical and physico-chemical processes, allows to predict their spontaneity and possibility in different conditions and their behaviour in time. This unit includes many laboratory experiments which help to illustrate the theoretical principles practically.</p>		
<b>Indicative Content</b>	<p>Students are expected to pass through the following topics:</p> <ul style="list-style-type: none"> <li>Chemical Thermodynamics</li> <li>Chemical Kinetics</li> <li>Study of Mixtures and Solutions</li> <li>Electrochemistry</li> <li>Surface Phenomena and Colloid Chemistry</li> </ul> <p>Theoretical principles will be delivered during the lectures. Theoretical problems which require the calculations, comparison of data, making the conclusions will be considered during the practical seminars. Most of the theoretical topics are supported by laboratory works. In laboratory students work by teams of 2 or 3 students.</p>		