

<b>Course title:</b>	<b>Principles of polymers technology</b>
<b>Institute/Division:</b>	<b>FACULTY OF CHEMICAL ENGINEERING AND TECHNOLOGY</b>
<b>Number of contact hours:</b>	<b>45 hours</b> (15 h lectures & 30 h laboratories)
<b>Course duration:</b>	1 semester (6 <sup>th</sup> semester of regular I cycle studies - spring)
<b>ETCS credits:</b>	<b>3</b>
<b>Course description:</b>	The course covers the basics laws in polymer chemistry and technology. In the frame of this course, a general introduction to polymers, basic terminology and definitions, their current classification and applications will be presented. Moreover, selected types of polymeric materials will be presented and basic structure-property relationships will be discussed. In the frame of laboratory work, selected polymeric materials will be synthesized and characterized.
<b>Education effects :</b>	<ul style="list-style-type: none"> <li>- knowledge: students have the basic knowledge in the frame of: polymers chemistry and technology, selected novel methods of polymer synthesis and processing, characterizing of polymers and relationships between polymer structure and properties, adjusting of polymeric materials for specific applications;</li> <li>- skills: students are able to synthesize various types of polymeric materials as well as to characterize them using the specific apparatus;</li> <li>- social: students are able to work independently and to co-operate in the group when solving the problems related to the technology and characterization of selected polymeric materials.</li> </ul>
<b>Literature:</b>	<p>[1] Rodriguez F., Cohen C., Ober C. K., Archer L., Principles of Polymer Systems, Sixth Edition. CRC Press 2014.</p> <p>[2] Chanda M., Introduction to Polymer Science and Chemistry: A Problem-Solving Approach, USA, 2013, CRC Press.</p> <p>[3] Cowie J.M.G., Arrighi V., Polymers: Chemistry and Physics of Modern Materials, USA, 2008, CRC Press.</p>
<b>Assessment method:</b>	Laboratory reports, final test
<b>Prerequisites:</b>	Basic course on general, inorganic and organic technology.
<b>Primary target group:</b>	Students from all specialties
<b>Lecturer:</b>	Aleksander Prociak
<b>Contact persons:</b>	Aleksander Prociak, Sławomir Michałowski
<b>Remarks:</b>	Regular course