

<b>Course title:</b>	<b>Principles of polymers technology</b>
<b>Institute/Speciality:</b>	<b>FACULTY OF CHEMICAL ENGINEERING AND TECHNOLOGY /</b> Engineering of Technological Processes
<b>Number of contacthours:</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>

**Course description:** 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.

**Education effects :**

- 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;
- skills: students are able to synthesize various types of polymeric materials as well as to characterize them using the specific apparatus;
- 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.

**Literature:** Cowie J.M.G., Arrighi V. — Polymers: Chemistry and Physics of Modern Materials, USA, 2008, CRC Press

**Assessment method:** Laboratory reports, final test  
**Prerequisites:** Basic course on general, inorganic and organic technology.  
**Primary target group:** All students

**Lecturer:** A.Prociak, Prof. PK, S. Michałowski  
**Contact person:** A.Prociak, Prof. PK., e-mail: [aleksander.prociak@pk.edu.pl](mailto:aleksander.prociak@pk.edu.pl)

**Deadline for application:** 15<sup>th</sup> of January  
**Remarks:** Selectable course