

<b>Course title:</b>	<b>Technological project with CAD modelling</b>
<b>Institute/Division:</b>	<b>FACULTY OF CHEMICAL ENGINEERING AND TECHNOLOGY</b>
<b>Number of contact hours:</b>	<b>45 hours</b> (45 h computer laboratories/project)
<b>Course duration:</b>	1 semester (7 <sup>th</sup> semester of regular I cycle studies - fall)
<b>ETCS credits:</b>	<b>6</b>
<b>Course description:</b>	The project of obtaining a selected large-volume product from natural raw materials or basic raw materials, including: review of chemical process concepts basing on up-to-date literature, selection of raw materials and single units and operations, preparation of technological scheme using CAD software, optimization of single units working regime and whole process effectiveness – sensitivity study in the light of green chemistry principles.
<b>Education effects :</b>	<ul style="list-style-type: none"> <li>- knowledge: student knows the basic possibilities of advanced simulators used in the chemical engineering and technology, recognize the basic principles governing the projects proposals, including safety restrictions, environmental consequences and principle of technologic moderation</li> <li>- skills: student can project a complex apparatus system in order to obtain specified a product of desired purity and yield</li> <li>- social: student understand the need of technologic moderation during projecting and planning of chemical plants modernization / construction.</li> </ul>
<b>Literature:</b>	handbooks for chemical technology
<b>Assessment method:</b>	Project.
<b>Prerequisites:</b>	Basic course on general, inorganic and organic chemistry and technology, chemical engineering.
<b>Primary target group:</b>	Students from all specialties
<b>Lecturer:</b>	<b>dr hab. inż. Elzbieta Skrzyńska; dr Marek Czernicki; dr inż. Maciej Gierada</b>
<b>Contact person:</b>	dr hab. inż. E. Skrzyńska (eskrzynska@pk.edu.pl)
<b>Remarks:</b>	The course is regular