

<b>Course Title:</b> Engineering Graphics and Design	
<b>Institute/Division:</b>	Department of Automation and Computer Engineering Faculty of Electrical and Computer Engineering
<b>Course code:</b>	E-EGD
<b>Erasmus subject code:</b>	0714 Electronics and automation
<b>Number of contact hours:</b>	45
<b>Course duration:</b>	1 semester (Spring/Summer)
<b>ECTS credits:</b>	6
<b>Course description:</b>	<p>The course covers basic information about engineering design based on examples of two and three-dimensional geometry. During the course, students will develop the ability to visualize shape and form in three dimensions with a high degree of fluency. The main goal of this course is to show how to create original drawings and read the content of drawings without ambiguity.</p> <p>Course objectives:</p> <ul style="list-style-type: none"> <li>• Product development and computer-aided design.</li> <li>• Principles of first and third-angle orthographic projection.</li> <li>• Three-dimensional illustrations using isometric and oblique projection. Sections and sectional views.</li> <li>• Dimensioning principles. Screw threads and conventional representations. Limits and fits. Geometrical tolerancing and datums. Springs, cams and gears. Welding and welding symbols.</li> <li>• Assamles and final visualization and rendering and preparation for prototyping.</li> </ul> <p>Intended software: Autodesk Inventor At-home practice: the possibility of downloading a student version of the software (1-year licence)</p>
<b>Course type:</b>	Lectures (10h), Laboratory (25h), Project (10h)
<b>Literature:</b>	Manual of Engineering Drawing by P Colin H Simmons Elementary Engineering Drawing by N.D.Bhatt Instruction for the AutoCAD and Inventor program
<b>Assessment method:</b>	For laboratory exercises, the assessment will be made after finishing the given exercises and finishing the bigger final project. (practical assessment method)
<b>Prerequisites:</b>	Basic knowledge of engineering graphics and design. Basic knowledge of how to read engineering drawings. Basic knowledge of the essential elements of English grammar and mechanics.
<b>Contact Person:</b>	Prof. Łukasz Ścisło, lukasz.sciclo@pk.edu.pl