



## Subject card

Subject name and code	Engineer Graphics, PG_00060838						
Field of study	Chemical Technology						
Date of commencement of studies	October 2026	Academic year of realisation of subject				2026/2027	
Education level	first-cycle studies	Subject group				Obligatory subject group in the field of study	
Mode of study	Full-time studies	Mode of delivery				at the university	
Year of study	1	Language of instruction				Polish	
Semester of study	1	ECTS credits				2.0	
Learning profile	general academic profile	Assessment form				assessment	
Conducting unit	Department of Process Engineering and Chemical Technology -> Faculty of Chemistry -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Iwona Cichowska-Kopczyńska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	0.0	0.0	30
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	30		2.0		18.0	50
Subject objectives	The aim of the course is to develop students ability to understand and produce technical documentation by mastering the fundamentals of descriptive geometry, the conventions of technical drawing, and methods for representing multi-dimensional objects in two-dimensional drawings. The course introduces component design in CAD systems (2D/3D) and prepares students to independently read mechanical technical drawings and process schematics, as well as to create manufacturing and assembly drawings and to design equipment used in the chemical industry.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K6_W04] Possesses the technical knowledge necessary to analyze processes and design installations in the chemical industry.	The student knows how to read and interpret technical documentation, understands basic symbols/notations, and is familiar with tools for editing and revising design documentation.			[SW1] Assessment of factual knowledge		
	[K6_U06] Recognizes the relationships between technological issues and their impact on the environment, taking into account the principles of sustainable development, systemic and non-technical aspects, and occupational health and safety principles	The student can identify the factors by which the design process and the adopted solutions affect the broader context. They present engineering/technological solutions in a way that is understandable to diverse stakeholders and collaborate in developing them so that they meet requirements arising from non-technical aspects.			[SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment		

Subject contents	<p>Course content – laboratory</p> <p>1. Fundamentals of 2D CAD Basic tools Viewports, projection (orthographic, isometric), sections and intersections, mappings Dimensioning rules and basic drawing annotations Representation of 3D objects on a plane using basic measuring tools</p> <p>2. 3D Modeling in CAD Interface and workflow: project, object browser, sketches and sketch planes Key operations and methods Work organization Assembly design</p> <p>3. Technical Documentation Creating drawings: base view and projected views, views, sections, details Drawing styles and standards (layers, text, dimensioning), title block, iProperties Editing/revision Selecting views and sections to faithfully convey shape; reconstructing 3D geometry based on a 2D drawing</p>														
Prerequisites and co-requisites	Computer literacy, ability to save and open files, copy, create archives, use e-mail, knowledge of the Office suite, geometry, dimensioning principles, basics of thermodynamics, process engineering, chemical technology, technological principles, principles of green chemistry, green engineering, chemical industry equipment														
Assessment methods and criteria	<table border="1"> <thead> <tr> <th data-bbox="453 732 794 763">Subject passing criteria</th> <th data-bbox="799 732 1141 763">Passing threshold</th> <th data-bbox="1145 732 1482 763">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="453 770 794 801">wykonanie konstrukcji</td> <td data-bbox="799 770 1141 801">60.0%</td> <td data-bbox="1145 770 1482 801">40.0%</td> </tr> <tr> <td data-bbox="453 808 794 853">sprawdziany wiedzy teoretycznej i zadania dodatkowe</td> <td data-bbox="799 808 1141 853">60.0%</td> <td data-bbox="1145 808 1482 853">20.0%</td> </tr> <tr> <td data-bbox="453 860 794 887">wykonanie konstrukcji</td> <td data-bbox="799 860 1141 887">60.0%</td> <td data-bbox="1145 860 1482 887">40.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	wykonanie konstrukcji	60.0%	40.0%	sprawdziany wiedzy teoretycznej i zadania dodatkowe	60.0%	20.0%	wykonanie konstrukcji	60.0%	40.0%
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Example issues/ example questions/ tasks being completed	basic geometric constructions, drawing orthogonal projections, isometric projections, developing project documentation, 3D constructions of mechanical elements, using libraries of materials and elements														
Practical activities within the subject	Not applicable														

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