

。 GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Computer Aided Design (CAD), PG_00059028								
Field of study	Environmental Engineering								
Date of commencement of studies	October 2023		Academic year of realisation of subject			2024/2025			
Education level	first-cycle studies		Subject group			Obligatory subject group in the field of study			
Mode of study	Part-time studies		Mode of delivery			at the university			
Year of study	2		Language of instruction			Polish			
Semester of study	3		ECTS credits			4.0			
Learning profile	general academic profile		Assessment form			assessment			
Conducting unit	Department of Geotechnical and Hydraulic Engineering -> Faculty of Civil and Environmental Engineering						Engineering		
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Krzysztof Szarf						
	Teachers		dr inż. Witold Tisler						
			dr inż. Krzysztof Szarf						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Projec	t	Seminar	SUM	
	Number of study hours	10.0	0.0	20.0	0.0		0.0	30	
	E-learning hours included: 0.0								
Learning activity and number of study hours	Learning activity udy hours		Participation in didactic classes included in study plan		Participation in consultation hours		udy	SUM	
	Number of study hours	30		6.0		66.0		102	
Subject objectives	To learn skills required to draft technical drawings using CAD software (AutoCAD by Autodesk)								
Learning outcomes	Course outcome		Subject outcome			Method of verification			
	[K6_U11] can use selected computer programs to support design, including CAD graphics programs		Can prepare technical drawings using AutoCAD			[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment			
	[K6_W15] knows the rules of descriptive geometry and technical drawing regarding the recording and reading of architectural drawings, construction and surveying drawings, as well as their preparation with the use of CAD		Knows the rules of drafting technical drawings Knows the rules of descriptive geometry Has the knowledge to draft technical drawings according to the aforementioned rules Knows how to draw in AutoCAD			[SW3] Assessment of knowledge contained in written work and projects			
	[K6_U07] can read architectural, construction and geodesy drawings, and can use the known computer programs to prepare a drawing part of technical documentation for the sanitary industry		Student can read a civil engineering or a sanitary engineering technical drawing Student is able to use AutoCAD software to create a technical drawing			[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools			

Subject contents	Learning how to use a current version of Autodesk AutoCADDrawing of basic elements (line, circle, polyline, polygon, rectangle, arch)Modification of the elements already drawn (commands such as copy, move, rotate, stretch, mirror copy, cut, extend, array, scale, offset)Precise drafting (using Cartesian and polar coordinates, using global and local coordinates, using object snap points)Layer usage (line type, line thickness)Properties of various objects in AutoCAD. Hatching. Adding dimensions to the drawing, including annotative dimensions. Adding texts to the drawing, including annotative texts. Drawing blocks and blocks with attributes. Regions. Mass properties.Printing (setting up a new plotter, plotting using the model space and the layout space. Setting a proper print scale. Using invisible layers. Using viewports)Introduction to 3D drawing						
Prerequisites and co-requisites	Classes taught in the previous semesters: descriptive geometry, technical drawingKnowledge of technical drawing rulesHow to use Windows OSPolish profficiency						
Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade				
and criteria	test	30.0%	80.0%				
	Udział w zajęciach	100.0%	20.0%				
Recommended reading	Basic literature	1. AutoCAD help files2. http://knowl autocad/learn-explore/3. Andrzej Pil Helion.4. Andrzej Jaskólski: AutoCa parametrycznego i nieparametryczr	toCAD help files2. http://knowledge.autodesk.com/support/ ad/learn-explore/3. Andrzej Pikoń: AutoCAD. Pierwsze kroki. n.4. Andrzej Jaskólski: AutoCad. Kurs projektowania netrycznego i nieparametrycznego w 2D i 3D. PWN.				
	Supplementary literature	any AutoCAD manual					
	eResources addresses	Podstawowe https://enauczanie.pg.edu.pl/moodle/course/view.php?id=33258 - eNauczanie course (in Polish. Winter semester 2023/2024) Adresy na platformie eNauczanie:					
Example issues/ example questions/ tasks being completed	Final test consists of redrawing a given figure and performing a number of specific tasks such as adding dimensions or printing the figure						
Work placement	Not applicable						

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