



Subject card

Subject name and code	Computer Aided Design (CAD), PG_00042637						
Field of study	Environmental Engineering						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2021/2022		
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	4	ECTS credits			4.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Faculty of Civil and Environmental Engineering						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Krzysztof Szarf					
	Teachers	dr inż. Krzysztof Szarf dr inż. Witold Tisler					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	10.0	0.0	20.0	0.0	0.0	30
	E-learning hours included: 0.0 Adresy na platformie eNauczanie: Grafika Inżynierska (CAD) IŚ niestacjonarne - lato 2021/2022 - Moodle ID: 18327 https://enauzanie.pg.edu.pl/moodle/course/view.php?id=18327						
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	5.0		70.0		105
Subject objectives	To learn skills required to draft technical drawings using CAD software (AutoCAD)						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[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		
	[K6_W16] 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_U11] can use selected computer programs to support design, including CAD graphics programs	Can prepare technical drawings using AutoCAD			[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools		
Subject contents	Learning how to use Autodesk AutoCAD Drawing of basic elements Modification of the elements already drawn Precision Layers Properties Printing Introduction to 3D drawing						

Prerequisites and co-requisites	Classes taught in the previous semesters: descriptive geometry, technical drawing Knowledge of technical drawing rules How to use Windows OS Polish proficiency		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	test	30.0%	80.0%
	Udział w zajęciach	100.0%	20.0%
Recommended reading	Basic literature	1. AutoCAD help files 2. http://knowledge.autodesk.com/support/autocad/learn-explore/ 3. Andrzej Pikoń: AutoCAD. Pierwsze kroki. Helion. 4. Andrzej Jaskólski: AutoCad. Kurs projektowania parametrycznego i nieparametrycznego w 2D i 3D. PWN.	
	Supplementary literature	any AutoCAD manual	
	eResources addresses	Grafika Inżynierska (CAD) IS niestacjonarne - lato 2021/2022 - Moodle ID: 18327 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=18327	
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		