



## Subject card

Subject name and code	Design Thinking, PG_00049447						
Field of study	Engineering Management						
Date of commencement of studies	October 2021	Academic year of realisation of subject			2021/2022		
Education level	first-cycle studies	Subject group			Optional subject group Subject group related to scientific research 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	2	ECTS credits			3.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Industrial Management -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Grzegorz Zieliński				
	Teachers		dr inż. Grzegorz Zieliński				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	30.0	0.0	0.0	0.0	30
	E-learning hours included: 0.0						
Design thinking - sem LETNI 2021/2022 sem II - Moodle ID: 22536 <a href="https://enauczanie.pg.edu.pl/moodle/course/view.php?id=22536">https://enauczanie.pg.edu.pl/moodle/course/view.php?id=22536</a>							
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		40.0	75
Subject objectives	the aim of the course is to present the concept of design thinking in creative design of new product concepts						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W13] has a basic knowledge of the design, modelling and optimisation of technical processes and systems		has a basic knowledge of design using creative techniques		[SW3] Assessment of knowledge contained in written work and projects		
[K6_U10] uses tools to measure and improve technical solutions concerning: devices, objects, systems, processes, products and services		uses tools to measure and improve technical solutions in designing new product concepts		[SU1] Assessment of task fulfilment			
Subject contents	<ul style="list-style-type: none"><li>- the basics of creativity,</li><li>- development and stimulation of creativity</li><li>- developing individual and team creativity</li><li>- heuristic techniques</li><li>- sinecetic techniques</li><li>- team forms of generating ideas</li><li>- empathy in Design Thinking</li><li>- Design thinking phases according to the Design Thinking concept</li></ul>						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Project		60.0%		100.0%		
Recommended reading	Basic literature		Michalska - Dominiak B., Grocholiński P., Poradnik Design Thinking, Wyd. Helion , Gliwice 2019				
			Ingle B., Design thinking dla przedsiębiorców i małych firm, Wyd. Helion 2015				
Supplementary literature		Kelley T., Kelley D., Twórcza odwaga. Otwórz się na design thinking, Wyd. MT Bizness 2019					

	eResources addresses	
Example issues/ example questions/ tasks being completed	Project with using the Design Thinking concept	
Work placement	Not applicable	