



Subject card

Subject name and code	Design Thinking, PG_00049447						
Field of study	Engineering Management						
Date of commencement of studies	October 2022	Academic year of realisation of subject			2022/2023		
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	Katedra Inżynierii Zarządzania i Jakości -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. inż. Anna Lis				
	Teachers		dr hab. inż. Anna Lis dr inż. Ewa Marjańska				
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 - Moodle ID: 28817 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=28817							
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 familiarize students with the concept of Design Thinking and the methods used within this concept						
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		Student has a knowledge of designing new products in accordance with the concept of Design Thinking		[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		The student uses methods tailored to the different phases distinguished in the Design Thinking concept		[SU4] Assessment of ability to use methods and tools		
Subject contents	Module 1 - Introduction; Module 2 - Empathizing; Module 3 - Defining the Problem; Module 4 - Generating Ideas; Module 5 - Building Prototypes; Module 6 - Testing & Final Presentations; Module 7 - Final exam.						
Prerequisites and co-requisites	Not applicable						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	final project		60.0%		100.0%		
Recommended reading	Basic literature		Brown, T. (2019). <i>Change by design, revised and updated: how design thinking transforms organizations and inspires innovation</i> . HarperCollins.				
			Kelly, R. (2016). <i>Creative development: Transforming education through design thinking, innovation, and invention</i> . Brush Education.				

	Supplementary literature	<p>Brown, T., & Katz, B. (2011). Change by design. <i>Journal of product innovation management</i>, 28(3), 381-383.</p> <p>Kelly, N., & Gero, J. S. (2021). Design thinking and computational thinking: A dual process model for addressing design problems. <i>Design Science</i>, 7, e8.</p>
	eResources addresses	
Example issues/ example questions/ tasks being completed	Please list all the phases distinguished in Design Thinking with methods and tools	
Work placement	Not applicable	