

WSB University							
Field of study: Production Management and Engineering							
Course: Design Thinking							
Educational profile: practical							
Education level: first-cycle studies							
Number of hours per semester	1		2		3		4
	I	II	III	IV	V	VI	VII
Full-time studies (L/C/lab/pr/e)*						14 c	
Part-time studies (L/C/lab/pr/e)*						12 c	
LECTURER							
FORM	Classes						
COURSE OBJECTIVES	<p>The aim of the course is to familiarize students with the Design Thinking methodology and how it is used in professional practice, including engineering activity and to familiarize students with English vocabulary used in Design Thinking methodology</p> <p>Students will learn where this method comes from, what stages it consists of and in which applications it works best. Students will also learn how to stimulate their creativity to generate innovative solutions and learn how to verify the real market usability of the generated solutions. Students will learn about the Design Thinking method, how to diagnose the real needs of users/clients, how to arouse their creativity to generate innovative solutions and how to verify them through prototyping and how to effectively organize the group's work.</p>						
Field-related learning outcome	Reference to PQF	Description of learning outcomes		Method of verification of learning outcomes			
		Knowledge The student:					
ZIP_W02	P6S_WG	Has the advanced knowledge and understanding of the assumptions of Design thinking methodology; knows the basic DT concepts such as persony, insight, empathy; knows and understands the effectiveness of the Destign Thinking method in decision-making in conditions of risk and uncertainty in the organization		Preliminary project (prototype), observation during classes, participation in the discussion.			
		Skills The student:					
ZIP_U06	P6S_UW, Eng.	Can integrate knowledge and use the design thinking method and tools in creating innovative services, products and solutions		Observation, prototype development, discussion.			
ZIP_U08	P6S_UW, Eng.	Can analyze critically and assess the functioning of existing technical solutions in the organization of production, at the same time proposing improvements based on the design thinking method		Observation, prototype development, discussion.			
		Social competences					

		The student:	
ZIP_K01	P6S_KK	understands the need to continuously improve knowledge of design thinking and to develop creative thinking.	Observation, project development, discussion.
ZIP_K03	P6S_KO	is prepared to participate in the development of social projects using the design thinking method.	Observation, project development, discussion.
Student's own workload (1h teaching hour=45 minutes)**			
Full-time participation in lectures = participation in classes = 14h preparation for classes = 12h familiarizing with the recommended reading preparation for lectures/tutorial = preparation for an end-of-term test/examination = 8h group consultation project tasks = e-learning = credit/examination = 2h other = 14h prototype development Total:50h ECTS points: 2 Including practical classes: 2h		Part-time participation in lectures = participation in classes = 12h preparation for classes = 14h familiarizing with the recommended reading preparation for lectures/tutorials = preparation for an end-of-term test//examination = 8h group consultation e-learning = credit/examination = 2h other = 14h prototype development Total:50h ECTS points: 2 Including practical classes: 2h	
PREREQUISITES	Creative thinking skills, open attitude		
COURSE CONTENT	Contact hours: :MS Teams platform <ul style="list-style-type: none"> • Introduction to Design Thinking • Changing market requirements • Creating a Design Thinking Team • Design Thinking process • Empathy – hidden and intuitive customer/user motivation • Defining the right problem • How to unlock the potential of innovation? • Generation of ideas • Prototyping – rapid failures • Testing hypotheses • Implementation of Design Thinking in the organization 		
COMPULSORY LITERATURE	Lewrick M., Link P., Leifer L., Design Thinking Toolbox, Wiley & Sons 2020.		
OPTIONAL LITERATURE	T. Brown - Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation Hardcover, 2009r Owen C.: Design Thinking: Notes on its Nature and Use, Design Research Quarterly 2007, Vol. 2, nr 1. Michalska-Dominiak B., Grocholiński P., Poradnik design thinking, czyli jak wykorzystać myślenie projektowe w biznesie, Onepress 2019.		
TEACHING METHODS	Contact hours (teams) and moodle platform Mini lecture, discussion, exercises in subgroups, working according to the design thinking methodology		
TEACHING AIDS	Overhead projector, flipchart, multimedia presentation		

PROJECT (if implemented in the framework of a classes module)	
FORM AND CONDITIONS OF ASSESSMENT	<p>Development of a prototype compatible with the Design Thinking methodology, individually or in small teams..</p> <p>Form of the project: descriptive-model</p> <p>Credit with a grade: Evaluation of the prepared prototype of an innovative solution. Evaluation of the presentation of the generated and developed innovative product or service solution</p> <p>By project groups. Evaluation of active participation in classes.</p>

* L-lecture, C- classes lab- laboratory, pr- project, e- e-learning