



Subject card

Subject name and code	DISRUPTIVE TECHNOLOGIES, PG_00059288						
Field of study	Engineering Management						
Date of commencement of studies	October 2019	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	Part-time studies	Mode of delivery				at the university	
Year of study	4	Language of instruction				English English	
Semester of study	7	ECTS credits				5.0	
Learning profile	general academic profile	Assessment form				exam	
Conducting unit	Department of Informatics in Management -> Faculty of Management and Economics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Sławomir Ostrowski				
	Teachers		dr Nadzeya Sabatini dr inż. Sławomir Ostrowski				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	16.0	0.0	16.0	0.0	0.0	32
	E-learning hours included: 0.0						
	Technologie Przelomowe - Disruptive Technologies 2022/23 - Moodle ID: 26473 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=26473						
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	32	0.0	0.0	32		
Subject objectives	<p>The goal of the course is to familiarize students with the type of technological innovation disruptive technologies. By the end of the module, students will be able to:</p> <ul style="list-style-type: none"> Understand and evaluate the role of disruptive technologies within the global digital transformation context Discuss different types of disruptive technologies Explain the types and patterns of innovation Apply the idea of disruptive innovation in different industries Develop disruptive innovation ideas in selected industry. 						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U08] analyses engineering and managerial solutions in decision-making processes, taking into account pro-quality and pro-environmental aspects, as well as safety of work processes		- Understand and evaluate the role of disruptive technologies within the global digital transformation context. - Discuss different types of disruptive technologies		[SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject		
	[K6_W13] has a basic knowledge of the design, modelling and optimisation of technical processes and systems		- Apply the idea of disruptive innovation in different industries. - Develop disruptive innovation ideas in selected industry.		[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation [SW3] Assessment of knowledge contained in written work and projects		
Subject contents	<ul style="list-style-type: none"> Introduction to disruptive technologies (history and types). Presentation and discussion of different case studies of disruptive technologies: Smartphone, Blockchain, Sharing economy. Introduction to Innovation Types of Innovation Disruptive Innovation Ecosystem Cases of disruptive technologies in different industries (GovTech (Smart Destination and Smart Cities), Fashion Technologies) 						
Prerequisites and co-requisites							

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Assignment report	60.0%	60.0%
	Collaborative Project	60.0%	40.0%
Recommended reading	Basic literature	<p>- Carlos M. DaSilva, Peter Trkman, Kevin Desouza & Jaka Lindič (2013). Disruptive technologies: a business model perspective on cloud computing, <i>Technology Analysis & Strategic Management</i>, 25:10, 1161-1173, DOI: 10.1080/09537325.2013.843661</p> <p>- Coccia, Mario. (2017). Disruptive Technologies and Competitive Advantage of Firms in Dynamic Markets. <i>SSRN Electronic Journal</i>. 10.2139/ssrn.2960190.</p> <p>- M. Bublitz, F.; Oetomo, A.; S. Sahu, K.; Kuang, A.; X. Fadrique, L.; E. Velmovitsky, P.; M. Nobrega, R.; P. Morita, P. Disruptive Technologies for Environment and Health Research: An Overview of Artificial Intelligence, Blockchain, and Internet of Things. <i>Int. J. Environ. Res. Public Health</i> 2019, 16, 3847. https://doi.org/10.3390/</p> <p>- Boer, Harry. (2001). Innovation, What Innovation? A Comparison between product, process and organizational innovation. <i>International Journal of Technology Management - INT J TECHNOL MANAGE</i>. 22. 83-107. 10.1504/IJTM.2001.002956.</p>	
	Supplementary literature	none	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		