



## Subject card

Subject name and code	DISRUPTIVE TECHNOLOGIES, PG_00059288						
Field of study	Engineering Management						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2023/2024		
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		
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 Nadzeya Sabatini					
	Teachers	dr inż. Sławomir Ostrowski dr Nadzeya Sabatini					
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						
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	The goal of the course is to familiarize students with the type of technological innovation - disruptive technologies. On the laboratories they will study how to apply the theories and concepts in developing disruptive ideas in a 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	<p>Role of disruptive technologies in the global digital transformation context</p> <p>Cases of disruptive technologies (e.g. Fabrican Spray-on fabric and sharing economy)</p> <p>Introduction to Innovation and its Management</p> <p>Categories and Types of Innovation</p> <p>Adoption of Innovation</p> <p>Disruptive Innovation Ecosystem (e.g. Smart Destination and Smart Cities)</p>														
Prerequisites and co-requisites	NA														
Assessment methods and criteria	<table border="1"> <thead> <tr> <th data-bbox="456 622 794 651">Subject passing criteria</th> <th data-bbox="799 622 1137 651">Passing threshold</th> <th data-bbox="1142 622 1481 651">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="456 658 794 687">Collaborative Project I</td> <td data-bbox="799 658 1137 687">60.0%</td> <td data-bbox="1142 658 1481 687">40.0%</td> </tr> <tr> <td data-bbox="456 694 794 723">Collaborative Project II</td> <td data-bbox="799 694 1137 723">60.0%</td> <td data-bbox="1142 694 1481 723">20.0%</td> </tr> <tr> <td data-bbox="456 730 794 759">Individual Exam</td> <td data-bbox="799 730 1137 759">60.0%</td> <td data-bbox="1142 730 1481 759">40.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Collaborative Project I	60.0%	40.0%	Collaborative Project II	60.0%	20.0%	Individual Exam	60.0%	40.0%
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Individual Exam	60.0%	40.0%													
Recommended reading	<p>Basic literature</p> <p>Supplementary literature</p> <p>eResources addresses</p>	<p>- Carlos M. DaSilva, Peter Trkman, Kevin Desouza &amp; Jaka Lindič (2013). Disruptive technologies: a business model perspective on cloud computing, <i>Technology Analysis &amp; 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. <a href="https://doi.org/10.3390/ijerph16203847">https://doi.org/10.3390/ijerph16203847</a></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> <p>NA</p> <p>Adresy na platformie eNauzanie: 2023/24 Technologie Przelomowe - Disruptive Technologies - Moodle ID: 31538 <a href="https://enauzanie.pg.edu.pl/moodle/course/view.php?id=31538">https://enauzanie.pg.edu.pl/moodle/course/view.php?id=31538</a></p>													
Example issues/ example questions/ tasks being completed															
Work placement	Not applicable														