GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Global Digital Transformation , PG_00053753						
Field of study	Engineering Management						
Date of commencement of studies	October 2021		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	Full-time studies		Mode of delivery		at the university		
Year of study	3		Language of instruction		English The class will be taught in English		
Semester of study	5		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		assessment		
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 Nadzeya Sabatini					

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	15.0	0.0	0.0	30
	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	30	5.0	40.0	75

Subject objectives	The aim of the course is for the students to learn about global digital transformation as an enabler for social, economic and political development. After the course, the students should understand digital transformation: 1) its defining features; 2) its progress around the world; 3) the benefits it can deliver and how to realize them; 4) the threats it creates and how to respond to them;and 5) development trends.

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	A student is able to observe and analyze the working of digital systems and their impact on decision processes.	[SU1] Assessment of task fulfilment
	[K6_W13] has a basic knowledge of the design, modelling and optimisation of technical processes and systems	A student understands how a combination of top-down design decisions and bottom-up organic growth shapes the behavior and impact of digital systems on society	[SW1] Assessment of factual knowledge

Subject contents	BACKGROUND - What is digital transformation about?
	LANDSCAPE - What is the global adoption of digital transformation?
	INNOVATIONS - What are the cases of digital transformation?
	FEATURES - What features define digital transformation?
	BOUNTY - What benefits can digital transformation deliver?
	SPREAD - How unequal are the benefits of digital transformation?
	WINNERS - Who benefits most from digital transformation?
	IMPACT - What is the impact of the bounty and spread?
Prerequisites and co-requisites	

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Group project	60.0%	60.0%
	Individual assessment	60.0%	40.0%

Recommended reading	Basic literature	1. E. Brynjolfsson and A. McAfee, The Second Machine Age, 2016
		2. B. Harris. Digital transformation the nextsteps. A business guide to digital change management, 2016
	Supplementary literature	A. McAfee and E. Brynjolfsson, Machine, Platform, Crowd, 2017
		T. M. Siebel, Digital Transformation, 2019
		B. Boorsma, A New Digital Deal, 2018
		K. Kelly, The Inevitable, 2016
		M. Raskino and G. Waller, Digital to the Core, 2015
	eResources addresses	Adresy na platformie eNauczanie: 2023/2024 Global Digital Transformation-Online - Moodle ID: 31537 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=31537

Example issues/ example questions/ tasks being completed	1. What do society and business want from digitalization?
	2. Does digitization have business value by itself?
	3. Is society responding to technological change reactively or proactively?
	4. What is the main difference between digitization and digitalization?
	5. What is the main difference between digitalization and digital transformation?
	6. Which elements could be applied to measure human social development?
	7. What are the parallels between the first and the second machine age?
	8. Why is access to technology not accurate to represent the usage of technology?
	9. How is the international bandwidth calculated?
	10. What types of digital skill can you describe?
	11. Explain why inequalities in digital skills follow traditional inequality patterns.
	12. What is the structure of the ICT sector?
	13. Describe the revenue trends in the ICT sector.
	14. Is digital technology already mature?
	15. What benefits digital technology bring to us?
	16. Can digital technology improve the physical world? How? 1
	7. What are the negative consequences of digital transformation?
	18. Which skills/abilities will be of value in the second machine age, which wont?
Work placement	Not applicable