



Subject card

Subject name and code	Global Digital Transformation , PG_00053753						
Field of study	Engineering Management						
Date of commencement of studies	October 2022	Academic year of realisation of subject			2024/2025		
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			e-learning		
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 Tomasz Janowski					
	Teachers	dr Tomasz Janowski 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: 30.0						
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	<p>The aim of the course is for the students to learn about global digital transformation as an enabler for social, economic and political development.</p> <p>After the course, the students should understand digital transformation:</p> <ol style="list-style-type: none">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;and5) development trends.						

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	understands how a combination of top-down design decisions and bottom-up organic growth shapes the behaviour and impact of digital systems on society	[SW1] Assessment of factual knowledge
	[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	is able to observe, measure and analyse the working of digital systems and their impact on decision processes	[SU1] Assessment of task fulfilment
Subject contents	<p>BACKGROUND - What is digital transformation about?</p> <p>LANDSCAPE - What is the global adoption of digital transformation?</p> <p>INNOVATIONS - What are the cases of digital transformation?</p> <p>FEATURES - What features define digital transformation?</p> <p>BOUNTY - What benefits can digital transformation deliver?</p> <p>SPREAD - How unequal are the benefits of digital transformation?</p> <p>WINNERS - Who benefits most from digital transformation?</p> <p>IMPACT - What is the impact of the bounty and spread?</p>		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Activity during lectures	60.0%	20.0%
	Individual report	60.0%	30.0%
	Group project	60.0%	50.0%
Recommended reading	Basic literature	E. Brynjolfsson and A. McAfee, The Second Machine Age, 2016	
	Supplementary literature	<p>The Digital Transformation Roadmap: Rebuild Your Organization for Continuous Change, David Roger, Columbia Business School Publishing, 2023</p> <p>HBR's 10 Must Reads on Leading Digital Transformation, Michael E. Porter, Rita Gunther McGrath, Thomas H. Davenport and Marco Iansiti, Harvard Business Review Press, 2021</p> <p>Digital Transformation: Survive and Thrive in an Era of Mass Extinction, Thomas M. Siebel, Audible Studios, 2019</p> <p>The Digital Transformation Playbook: Rethink Your Business for the Digital Age, David L. Rogers, Columbia Business School Publishing, 2016</p>	
	eResources addresses	<p>Adresy na platformie eNauczanie:</p> <p>2024/2025 Global Digital Transformation - Moodle ID: 39495</p> <p>https://enauczanie.pg.edu.pl/moodle/course/view.php?id=39495</p>	

<p>Example issues/ example questions/ tasks being completed</p>	<ol style="list-style-type: none"> 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 informatics sector? 13. Describe the revenue trends in the informatics sector. 14. Is digital technology already mature? 15. What benefits digital technology bring to us? 16. Can digital technology improve the physical world? How? 17. What are the negative consequences of digital transformation? 18. Which skills/abilities will be of value in the second machine age, which won't?
<p>Work placement</p>	<p>Not applicable</p>

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