



Subject card

Subject name and code	Sociotechnical perspective on digital transformation, PG_00070249						
Field of study	Sociotechnical perspective on digital transformation						
Date of commencement of studies	October 2024		Academic year of realisation of subject		2025/2026		
Education level	second-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	2		Language of instruction		Polish		
Semester of study	4		ECTS credits		3.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Informatics In Management -> Faculty of Management and Economics -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Magdalena Ciesielska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	30.0	0.0	0.0	0.0	45
	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	45		4.0		26.0	75
Subject objectives	The aim of the course is to prepare students to analyze and interpret digital transformation processes from a socio-technical perspective, based on knowledge of economic, legal, and ethical contexts, and to shape attitudes of responsibility and conscious decision-making in an environment of diverse stakeholders.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_W05] takes into account in the analyzes in an in-depth way both the economic, legal and ethical context, being aware of the responsibility for the consequences of its decisions		The student knows and understands the principles of taking into account the economic, legal, and ethical context in the analysis of socio-technical systems in the context of digital transformation processes and their impact on stakeholders and society.		[SW3] Ocena wiedzy zawartej w opracowaniu tekstowym i projektowym		
	[K7_U04] prepares and presents convincing, professional presentations of analysis results, with their in-depth interpretation		The student is able to prepare and deliver a convincing presentation analyzing a selected socio-technical issue of digital transformation, using data interpretation methods and argumentation based on a multifaceted analysis.		[SU3] Ocena umiejętności wykorzystania wiedzy uzyskanej w ramach przedmiotu [SU5] Ocena umiejętności zaprezentowania wyników realizacji zadania [SU2] Ocena umiejętności analizy informacji		

Subject contents	Course content – lecture 1. Introduction to the topic. Sociotechnical challenges. 2. What is a socio-technical system? 3. Innovation processes in socio-technical systems 4. User-centered design 5. Participatory design 6. Sustainable development in socio-technical systems 7. Jobs and work of the future 8. Diversity and inclusion 9. Pitfalls of data analysis 10. Leadership and change management in socio-technical systems		
	Course content – exercises 1. Selected social engineering models 2. Stakeholders in digital transformation 3. Users and their needs 4. Digital inequalities and digital exclusion 5. Trust in technology 6. Strategies for civic inclusion 7. The dark side of technology use		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		60.0%	20.0%
		60.0%	30.0%
		60.0%	50.0%
Recommended reading	Basic literature	Borrás, S., & Edler, J. (Eds.). (2014). <i>The governance of socio-technical systems: explaining change</i> . Edward Elgar Publishing.	
	Supplementary literature	Baxter, G., & Sommerville, I. (2011). Socio-technical systems: From design methods to systems engineering. <i>Interacting with computers</i> , 23 (1), 4-17. Appelbaum, S. H. (1997). Sociotechnical systems theory: an intervention strategy for organizational development. <i>Management decision</i> , 35(6), 452-463. Pasmore, W., Winby, S., Mohrman, S. A., & Vanasse, R. (2019). Reflections: sociotechnical systems design and organization change. <i>Journal of Change Management</i> , 19(2), 67-85. Carayon, P. (2006). Human factors of complex sociotechnical systems. <i>Applied ergonomics</i> , 37(4), 525-535.	
	eResources addresses		
	Example issues/ example questions/ tasks being completed	Discussion of issues related to case study preparation. Discussion of selected scientific articles. Analysis of social engineering models.	
Practical activities within the subject	Not applicable		

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