



Subject card

Subject name and code	Responsible Future: Technology, Entrepreneurship, and Sustainable Development, PG_00072993						
Field of study	Technical Physics						
Date of commencement of studies	February 2026		Academic year of realisation of subject		2026/2027		
Education level	second-cycle studies		Subject group				
Mode of study	Full-time studies		Mode of delivery		e-learning		
Year of study	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		2.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Entrepreneurship and Institutional Environment -> Faculty of Management and Economics -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Magdalena Popowska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	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		2.0		18.0	50
Subject objectives	The aim of the course is to prepare students to critically analyse and assess the impact of technology on society, the economy and the environment, drawing on knowledge from the social sciences, economics, the humanities and law, and to foster a sense of responsibility for the design and implementation of solutions that support sustainable development.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems		The student is familiar with and understands the social, economic, humanistic, and legal factors influencing technological development, as well as their significance for entrepreneurship and sustainable development.		[SU2] Assessment of ability to analyse information		
	[K7_K71] is able to explain the need to apply knowledge from humanistic, social, economic or legal sciences in order to function in a social environment		Students are able to analyze and assess the impact of technology on society, the economy, and the environment, using an interdisciplinary approach to identify and resolve contemporary social and economic problems.		[SK5] Assessment of ability to solve problems that arise in practice		
	[K7_W71] has general knowledge in humanistic, social, economic or legal sciences, including their fundamentals and applications		The student is prepared to take into account the social, ethical, economic, and environmental implications of decisions relating to the design and implementation of technology and to participate in discussions on the responsible development of innovation.		[SW1] Assessment of factual knowledge		

Subject contents	Course content – lecture 1. Technology as a force for change in civilization. 2. Industrial revolutions and their social consequences. 3. Artificial intelligence and the future of work. 4. The digital society and new inequalities. 5. Privacy and surveillance in the data-driven world. 6. The ethics of new technologies – the responsibility of technology developers. 7. Disinformation, fake news and the algorithmic society. 8. Smart cities and intelligent societies. 9. Technology, culture and human identity. 10. The climate crisis and green technologies. 11. What will the engineer of the future be like? 12. Transhumanism and the expansion of human capabilities. 13. Technology and quality of life. 14. Future scenarios up to 2050.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Manifesto for Responsible Innovation.	60.0%	10.0%
	Problem-based test.	60.0%	60.0%
	A case study with recommendations for action.	60.0%	30.0%
Recommended reading	Basic literature	21 Lessons for the 21st Century (2021), Yuval Noah Harari Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist (2017), Kate Raworth The Coming Wave: Technology, Power, and the Twenty-first Century's Greatest Dilemma (2023), Mustafa Suleyman, Michael Bhaskar	
	Supplementary literature	The Second Machine Age (2014), Erik Brynjolfsson, Andrew McAfee	
	eResources addresses		
Example issues/ example questions/ tasks being completed	Explain why the development of digital technologies can simultaneously contribute to an improved quality of life and to the widening of social inequalities. Misinformation about a new medical technology is spreading rapidly on social media. Suggest measures that could limit the negative effects of this phenomenon.		
Practical activities within the subject	Not applicable		

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