GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Social Aspects of Modern Technology, PG_00071022		
Field of study	Mathematics		
Date of commencement of studies	October 2025	Academic year of realisation of subject	2025/2026
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	English
Semester of study	2	ECTS credits	2.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Department of Optoelectronics -> Faculty of Electronics Telecommunications and Informatics -> Faculties of Gdańsk University of Technology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Marcin Gnyba	
	Teachers	dr hab. inż. Marcin Gnyba	

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						
	eNauczanie source address: https://enauczanie.pg.edu.pl/2025/course/view.php?id=2780						
	Additional information: on-line lecture 30 h						

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	Developing students knowledge and social competences in the field of the impact of information technologies on the environment and society in sociological, medical, legal and cultural aspects.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K7_W71] has general knowledge in humanistic, social, economic or legal sciences, including their fundamentals and applications	The student has basic knowledge of history, telecommunications and information technology, cybercrime, ethical aspects of using information technology, personal data security, as well as medical, economic and sociocultural aspects and effects of electromagnetic radiation.	[SW1] Assessment of factual knowledge
	[K7_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems	Can collect information on the impact of information technology on the environment and society as part of cooperation in a student group and present it correctly.	[SU5] Assessment of ability to present the results of task [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	The student is aware of the importance of non-technical aspects and effects of engineering activities, including the impact of electronic and telecommunications devices on the environment and society.	[SK2] Assessment of progress of work

Subject contents	Course content – lecture The origin and history of the development of selected modern technologies and their impact on the development of civilization. Network society. Health aspects of selected ITs (e.g. games, virtual reality) and electromagnetic radiation. Benefits and threats to the human psyche related to the use of IT. The ways in which the media integrate society and strengthen social ties. Criminological and legal issues related to the development of modern technologies. Influence of modern technologies on economy (e-commerce, cryptocurrencies, impact of other selected technologies) and society (administration, education etc.). Soft skills and IT in the digital work environment.
Prerequisites and co-requisites	

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	test	50.0%	100.0%

Recommended reading	Basic literature	1. Castells M.: Rise of the Network Society. John Wiley & Sons, 2009
		2. Carr N.:The Shallows: What the Internet Is Doing to Our Brains, W.W. Norton 2011
		3. Kremling J., Sharp Parker A. M.: Cyberspace, Cybersecurity, and Cybercrime SAGE Publications, Inc; 1st edition 2017
		4. Spinello R. A.: Cyberethics: Morality and Law in Cyberspace: Jones & Bartlett Learning; 7th edition, 2020
	Supplementary literature	No predefined list.
	eResources addresses	

Example issues/ example questions/ tasks being completed	The vision of the Internet of Things in economy and society
	Surveillance as a business model of the Internet.
	Privacy risks.
	Internet monitoring and surveillance of Internet users by state and international institutions.
	Internet threats to minors.
	Cryptocurrencies new opportunities and threats.
	Copyright protection of Internet content.
	Internet censorship.
	Right to quote and Creative Commons license
	Access to and Dissemination of Proprietary Information.
	Innovations.
	Problems and legal regulations regarding the use of drones.
	Criminal use of location data.
	Benefits and risks of 3D printing technology.
	Social aspects of using artificial intelligence.
	Driverless car - prospects for development.
	Development of electricity sources, social aspect.
	The origin and history of the development of selected devices and technologies and their impact on the development of civilization.
	Whistleblowers in the network society
	Interpretation of computer crime by Polish and foreign law enforcement agencies.
	Legal regulations describing computer crimes and ways of prosecuting them.
	The most common methods of committing computer crimes.
	Health aspects of the impact of electromagnetic radiation
	The influence of the computer on the user, psychological aspects.
	A man immersed in virtual reality.

	Psychological aspects of using information technologies.
	Does the use of information technology strengthen interpersonal relationships?
Practical activites within the subject	Not applicable

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