



## Subject card

Subject name and code	Social Sciences for Engineers, PG_00047523						
Field of study	Biomedical Engineering, Biomedical Engineering, Biomedical Engineering						
Date of commencement of studies	October 2020	Academic year of realisation of subject			2020/2021		
Education level	first-cycle studies	Subject group			Obligatory subject group in the field of study Humanistic-social subject group		
Mode of study	Full-time studies	Mode of delivery			at the university		
Year of study	1	Language of instruction			Polish		
Semester of study	1	ECTS credits			3.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Department of Intelligent Interactive Systems -> Faculty of Electronics, Telecommunications and Informatics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Adam Kaczmarek				
	Teachers		dr inż. Adam Kaczmarek dr hab. Mariusz Mróz dr rzecznik patentowy Justyna Pawłowska-Bajerska dr hab. Andrzej Lisak prof. dr hab. inż. Krzysztof Goczyla				
Lesson types and methods of instruction	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: 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		3.0		42.0	75
Subject objectives	The aim of the subject is to familiarize students with the issues related to engineering creativity, culture, the history of civilization, intellectual property protection and linguistic correctness						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_W08] Knows and understands the fundamental dilemmas of modern civilisation and basic economic, legal and other conditions of various types of activities related to the field of study, including the basic concepts and principles in the field of industrial property and copyright protection.		The student knows elements of the process of engineering and the impact of this process on the civilization development. The student is also aware of the mission of the engineer in the field of creativeness. Moreover, the student has the knowledge about patent law and copyright law.		[SW1] Assessment of factual knowledge		
	[K6_K03] is ready to meet social obligations, co-organise activities for the social environment, initiate actions for the public interest, think and act in an entrepreneurial way		The student has the knowledge about performing her or his work efficiently and the student is able to implement this knowledge in her or his job. Moreover, the student knows rules cooperation in the society.		[SK1] Assessment of group work skills [SK5] Assessment of ability to solve problems that arise in practice		

Subject contents	<p>The concepts and criteria for engineering works. Creativity as a characteristic feature of the product and as a personality. Criteria of creativity open and hidden. The structure and components of the creative process. External creator environment. Rules for outstanding innovation. Innovation driving forces. A strategy for effective action. Creating a creative atmosphere. Internal environment of a creator. Mental internal environment of a creator. Human Personality and its dynamism. Engineer's mission in the field of creation and implementation of the principles of creative leadership in the modern company. Propedeutics of art history, propaedeutics of cultural history, history as heritage of generations / Gdańsk, region, Poland, Europe /. Institutions of culture / Gdańsk, region, Poland. Fine arts, artistic creation. Contemporary mass media. Mass culture. Ethnography, musical ethnography. Contemporary society, homelessness, disability. Identification of the aims of elements and their relations in the systems of the work. Methodies of the investigation and improving the work with the use of inductive and deductive techniques. Ancient sources of European civilization, the rise in Europe, the essence of European subjectivity; Western rationality, enlightenment program of modernity; Two models of Western civilization: Europe and America; Europe and other civilizations; it is possible to create a global civilization?; human being as a consumer; floating postmodernity. Intellectual property: the basic principles of protection, the types and referenes of exclusive rights, the range and limitations of protection. Paris Convention for the Protection of Industrial Property: the principle of independence of patents, the principle of equal treatment, the Convention priority, the priority of the exhibition, the privilege of communication, protection against unfair competition. The Patent Office and industrial property law in Poland: the law acts, objects and types of protection provided by the office. Industrial designs, trademarks. Geographical indications and topographies of integrated circuits. Rules for Polish spelling and orthography; common errors Rules for correct speech and writing in Polish; typical errors Rules for good language style in speech and writing; levels of the language; frequently made errors and mistakes</p>																				
Prerequisites and co-requisites	No requirements																				
Assessment methods and criteria	<table border="1"> <thead> <tr> <th data-bbox="448 692 794 725">Subject passing criteria</th> <th data-bbox="794 692 1141 725">Passing threshold</th> <th data-bbox="1141 692 1487 725">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 725 794 759">Creativity in engineering</td> <td data-bbox="794 725 1141 759">50.0%</td> <td data-bbox="1141 725 1487 759">25.0%</td> </tr> <tr> <td data-bbox="448 759 794 792">Polish Language</td> <td data-bbox="794 759 1141 792">50.0%</td> <td data-bbox="1141 759 1487 792">20.0%</td> </tr> <tr> <td data-bbox="448 792 794 826">The history of civilization</td> <td data-bbox="794 792 1141 826">50.0%</td> <td data-bbox="1141 792 1487 826">15.0%</td> </tr> <tr> <td data-bbox="448 826 794 860">Protection of intellectual property</td> <td data-bbox="794 826 1141 860">50.0%</td> <td data-bbox="1141 826 1487 860">15.0%</td> </tr> <tr> <td data-bbox="448 860 794 898">Culture</td> <td data-bbox="794 860 1141 898">50.0%</td> <td data-bbox="1141 860 1487 898">25.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Creativity in engineering	50.0%	25.0%	Polish Language	50.0%	20.0%	The history of civilization	50.0%	15.0%	Protection of intellectual property	50.0%	15.0%	Culture	50.0%	25.0%
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Recommended reading	<p>Basic literature</p> <p>Supplementary literature</p> <p>eResources addresses</p>	<p>1. Chaffee J. „Potęga twórczego myślenia”, GWP, 1998. 2. Goczyła K. „Język polski czy obcy”. Cykl wykładów, WETI PG, 2006-2009. 3. Nęcka E. „Psychologia twórczości”, GWP. Gdańsk 2001. 4. Tatariewicz W., "Dzieje sześciu pojęć" PWN, 1988 5. Tatariewicz W. "Historia filozofii", PWN 1988 6. Sztompka P. "Socjologia", Wydawnictwo Znak 2005 7. Baly S., "Psychologia wychowawcza w zarysie", PWN 1965 8. Bogucka M., "Dzieje kultury polskiej", Ossolineum 1991 9. Anzenbacher A., "Wprowadzenie do etyki," Wydawnictwo WAM, Kraków 2008. 10. Popek S. "Mechanizmy aktywności twórczej człowieka w świetle interakcyjnej teorii psychologicznej", UMCS 2016 11. Rybotycki C. "Etnografia wobec kultury współczesnej" UJ Kraków 1992</p>																			
Example issues/ example questions/ tasks being completed																					
Work placement	Not applicable																				