

Subject card

Subject name and sade	Ethics in Science and Engineering , PG_00056431								
Subject name and code	Nanotechnology								
Field of study									
Date of commencement of studies	October 2022		Academic year of realisation of subject			2022/2023			
Education level	first-cycle studies		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			2.0			
Learning profile	general academic profile		Assessment form			assessment			
Conducting unit	Institute of Nanotechnology and Materials Engineering -> Faculty of Applied Physics and Mathematics								
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Marek Augustyniak						
	Teachers		dr inż. Marek Augustyniak						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Projec	ct Seminar		SUM	
	Number of study hours	30.0	0.0	0.0	0.0	0.0		30	
	E-learning hours included: 0.0								
	Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=18404¬ifyeditingon=1								
Learning activity and number of study hours	Learning activity	Participation in classes include plan		Participation in consultation hours		Self-study		SUM	
	Number of study hours	30		0.0		0.0		30	
Subject objectives	The lectures aim at guiding the Students through the fascinating realms of work ethics, either from the point of view of an engineer, or from the experience of a lab resercher. To begin with, a general introduction to the ethical issues is proposed, referring to topics already familiar to the Participants, such as school life dilemmas.								
Learning outcomes	Course outcome		Subject outcome			Method of verification			
	[K6_K71] is conscious of the need to apply knowledge from humanistic, social, economic or legal sciences in order to function in a social environment		The Student understands the significance of fundamental questions, concerning the limits of freedom, priciples of "playing fair" in the workplace and private life, and the balance between money and other values.			[SK1] Assessment of group work skills			
	[K6_U71] is able to apply knowledge from humanistic, social, economic or legal sciences in order to solve problems in a social environment		The Student acquires experience on solving realistic case-studies, at least in terms of identification of criteria allowing to prefer one solution over another. He/she learns to justify the standpoint and to understand other points of view and attitudes, during workshop discussions.			[SU3] Assessment of ability to use knowledge gained from the subject			
	[K6_W71] has general knowledge in humanistic, social, economic or legal sciences		The Student gathers and puts in order the history of ethics, as well as the biographies and choices of outstanding scientists and engineers.			[SW1] Assessment of factual knowledge			
Subject contents	I plan to go through four areas. Team building and motivation meetings shall be organised first, during which the Students shall be encouraged to draw on their experience gathered at schoold. Then a concise history of ethics is supposed to be presented, followed by focus on dilemmas of employees and employers at technical companies. The ethics of scientific researchs are planned to close the curriculum.								
Prerequisites and co-requisites									

Assessment methods	Subject passing criteria	Passing threshold	Percentage of the final grade				
and criteria	Exam	70.0%	33.0%				
	Activity during lectures	70.0%	34.0%				
	Homeworks	70.0%	33.0%				
Recommended reading	Basic literature	Alasdair macintyre, A short history o	of ethics				
		Ryszard Legutko, Treaty on Freedom					
	Supplementary literature	Luc Ferry, La plus belle histoire de la Philosophie					
		C.S. Lewis, A mind awake					
		Jan Hartmann, Ethics!					
	eResources addresses	Adresy na platformie eNauczanie:					
Example issues/ example questions/ tasks being completed	Integration meeting: "student and student compass" - our experiences from school.						
3 · · · · · · · · · · · · · · · · · · ·	A world of values and choices: analogies between technology and everyday life.						
	Branches of ethics - a historical outline.						
	A more detailed discussion of selected topics (e.g. freedom, progress, human nature).						
	Planning of professional life: engineer vs scientist.						
	Famous Engineers and Businessmen: real stories						
	Ethics in the company - selected dilemmas.						
	A multi-scale approach - individual choices, the operation of companies and institutions, global phenomena.						
	Ethics in scientific work: information reliability, social responsibility.						
Work placement	Not applicable						

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