



Subject card

Subject name and code	Ethics in Science and Engineering , PG_00056431						
Field of study	Nanotechnology						
Date of commencement of studies	October 2021	Academic year of realisation of subject			2021/2022		
Education level	first-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	1	ECTS credits			2.0		
Learning profile	general academic profile	Assessment form			assessment		
Conducting unit	Instytut Nanotechnologii i Inżynierii Materiałowej -> 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	Project	Seminar	SUM
	Number of study hours	30.0	0.0	0.0	0.0	0.0	30
	E-learning hours included: 30.0						
	Address on the e-learning platform: https://enauczanie.pg.edu.pl/moodle/course/view.php?id=18404&notifyeditingon=1 Adresy na platformie eNauczanie: Etyka w pracy inżyniera i naukowca - Moodle ID: 18404 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=18404						
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	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_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		
	[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_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		
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 and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Exam	70.0%	33.0%
	Homeworks	70.0%	33.0%
	Activity during lectures	70.0%	34.0%
Recommended reading	Basic literature	<p>Alasdair macintyre, A short history of ethics</p> <p>Francis Fukuyama, The Last Man</p> <p>Ryszard Legutko, Treaty on Freedom</p>	
	Supplementary literature	<p>Luc Ferry, La plus belle histoire de la Philosophie</p> <p>C.S. Lewis, A mind awake</p> <p>Jan Hartmann, Ethics!</p>	
	eResources addresses	<p>Etyka w pracy inżyniera i naukowca - Moodle ID: 18404 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=18404</p>	
Example issues/ example questions/ tasks being completed	<p>Integration meeting: "student and student compass" - our experiences from school.</p> <p>A world of values and choices: analogies between technology and everyday life.</p> <p>Branches of ethics - a historical outline.</p> <p>A more detailed discussion of selected topics (e.g. freedom, progress, human nature).</p> <p>Planning of professional life: engineer vs scientist.</p> <p>Famous Engineers and Businessmen: real stories</p> <p>Ethics in the company - selected dilemmas.</p> <p>A multi-scale approach - individual choices, the operation of companies and institutions, global phenomena.</p> <p>Ethics in scientific work: information reliability, social responsibility.</p>		
Work placement	Not applicable		