



Subject card

Subject name and code	Technical Physics, PG_00044373						
Field of study	Engineering Management						
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		
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			5.0		
Learning profile	general academic profile	Assessment form			exam		
Conducting unit	Department of Atomic, Molecular and Optical Physics -> Faculty of Applied Physics and Mathematics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Paweł Możejko					
	Teachers	dr inż. Ewa Erdmann dr hab. Mateusz Zawadzki dr Tomasz Neumann dr Mykola Shopa dr hab. Paweł Możejko dr hab. inż. Maciej Demianowicz					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	0.0	30.0	0.0	0.0	60
	E-learning hours included: 0.0						
	Adresy na platformie eNauczanie: Fizyka Techniczna - Zarządzanie Inżynierskie (WZiE) - Moodle ID: 171 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=171 Fizyka Techniczna - Zarządzanie Inżynierskie (WZiE) - Moodle ID: 171 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=171						
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	60		6.0		59.0	125
Subject objectives	Basic knowledge of physics. Ability to use basic physical laws. Ability to interpret basic physical phenomena.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_U01] interprets and analyses the phenomena and processes taking place in the economy and organisation using basic theoretical knowledge of economics, management and science		Basic knowledge of physics. Ability to use basic physical laws. Ability to interpret basic physical phenomena.		[SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment		
[K6_W11] has the basic knowledge of mathematics, physics and chemistry necessary to solve technical problems		Basic knowledge of physics. Ability to use basic physical laws. Ability to interpret basic physical phenomena.		[SW1] Assessment of factual knowledge			

Subject contents	Mechanics Optics Heat Waves Statistical physics Atomic physics Nuclear Physics Quantum Physics		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	final exam	50.0%	50.0%
	laboratories	50.0%	50.0%
Recommended reading	Basic literature	D. Halliday, R. Resnick and J. Walker "Podstawy fizyki" PWN tom 1-5 "Feynmana Wykłady z Fizyki" PWN Warszawa J. Orear, <i>Fizyka</i> , WNT, Tom 1 i 2	
	Supplementary literature	Paul G. Hewitt "Fizyka wokół nas" PWN Warszawa I. W. Sawieliew, <i>Wykłady z Fizyki</i> , PWN, Tom 1-3	
	eResources addresses	Fizyka Techniczna - Zarządzanie Inżynierskie (WZiE) - Moodle ID: 171 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=171 Fizyka Techniczna - Zarządzanie Inżynierskie (WZiE) - Moodle ID: 171 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=171	
Example issues/ example questions/ tasks being completed	The laws of classical mechanics		
Work placement	Not applicable		