



Subject card

Subject name and code	Physics II, PG_00039935						
Field of study	Management and Production Engineering, Management and Production 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		
Mode of study	Full-time studies		Mode of delivery		at the university		
Year of study	1		Language of instruction		Polish		
Semester of study	2		ECTS credits		1.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Physics of Electronic Phenomena -> Faculty of Applied Physics and Mathematics						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Tomasz Wąsowicz				
	Teachers		dr hab. Tomasz Wąsowicz				
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						
	Adresy na platformie eNauczanie: Wykład FIZYKA II dla ZiIP 20/21 sem. letni - Moodle ID: 13854 https://enauczenie.pg.edu.pl/moodle/course/view.php?id=13854						
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	15		2.0		8.0	25
Subject objectives	Presentation of physical phenomena related to: elasticity, hydrostatics, hydrodynamics, thermodynamics,, electromagnetic waves, structure of matter.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	K6_K03		Student thinks critically		[SK5] Assessment of ability to solve problems that arise in practice		
	K6_U02		Sudent can learn and applicate the knowlege to solve engineering problems		[SU3] Assessment of ability to use knowledge gained from the subject		
	K6_W01		Student has an abilitiy of solving the simple and complex physical problems		[SW1] Assessment of factual knowledge		
Subject contents	Electromagnetism: the movment of electrical charge through the the electromagnetic field; An electric motor, electric generator; magnetism of the matter. Atom structure, Bohr model of hydrogen atom, energy levels. Spectroscopy: absorption and emission spectrum, prism and grating spectrometers. Angular momentum and spin of electron, orbitals, quantum numbers. Classification of elements: multielectron atom, Pauli's exlusion principle, periodic table of the elements. The atomic nucleus and its properties; radioactive decays. Electromagnetic waves (EW), diffraction, interference and polarization of EW, the corpuscular theory of light.						
Prerequisites and co-requisites	Course credit Physics I - E (07001W0) and Physics I (07021C0)						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Egzam		50.0%		100.0%		
Recommended reading	Basic literature		1. Cz. Bobrowski, Fizyka, WNT, Warszawa 1979, 1993 2. J.Orear, Fizyka t. 1,2, WNT Warszawa				
	Supplementary literature		1. D.Halliday, R.Resnick, J. Walker, Podstawy fizyki t. 2,4, 5, PWN				
	eResources addresses		Wykład FIZYKA II dla ZiIP 20/21 sem. letni - Moodle ID: 13854 https://enauczenie.pg.edu.pl/moodle/course/view.php?id=13854				

Example issues/ example questions/ tasks being completed	wave theory of light; Young's the double-slit experiment
Work placement	Not applicable