



Subject card

Subject name and code	Physics, PG_00044539						
Field of study	Transport						
Date of commencement of studies	October 2024	Academic year of realisation of subject			2024/2025		
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			6.0		
Learning profile	general academic profile	Assessment form			exam		
Conducting unit	Department of Solid State Physics -> Faculty of Applied Physics and Mathematics						
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Anna Rybicka					
	Teachers	mgr inż. Piotr Okoczek dr inż. Anna Rybicka					
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	30.0	45.0	0.0	0.0	0.0	75
	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	75	5.0		70.0		150
Subject objectives	Learning the basic laws of classical physics. Developing of ability to analyze physical phenomena and solving technical problems based on the physical laws.						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
Subject contents	Kinetics of progressive and rotational motion. Newton's principles. Dynamisc of progressive and rotational motion. Work and energy. Principles of conservation of momentum and energy. Harmonic and wave motion. Electrostatic. Coulomb's and Gauss's laws, Electric current. Ohm's and Kirchhoff's laws. The magnetic fiels. Ampere's, Biot's - Savart's and Faraday's laws. Maxwell's exuations.						
Prerequisites and co-requisites	Course for Students, who completed mathematic and physics at the advanced level in the secondary school.						

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Test 1	50.0%	30.0%
	Exam	50.0%	40.0%
	Test 2	50.0%	30.0%
Recommended reading	Basic literature	e-book "University Physics" (www.ftims.pg.edu.pl/Studenci/Materiały dydaktyczne) D.Halliday, R.Resnick, J.Walker, "Fundamentals of physics", Jon Willey & Sons, 2001	
	Supplementary literature	J.Orear, "Physics", Macmillan Publishing Co.	
	eResources addresses	Adresy na platformie eNauczanie: FIZYKA I_TRANSPORT_24/25 - Moodle ID: 38875 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=38875	
Example issues/ example questions/ tasks being completed	<p>Equations of motion in the gravitational field.</p> <p>Elastic and inelastic collisions.</p> <p>Moment of inertia of the rigid body.</p> <p>Mathematical and physical pendulum.</p> <p>Electric field strength and potential. Field superposition.</p> <p>Movement of charge in an electric and magnetic fields.</p> <p>Magnetic field around a current carrying conductor.</p>		
Work placement	Not applicable		

Document generated electronically. Does not require a seal or signature.