



## Subject card

Subject name and code	Methodology of scientific research, PG_00031934						
Field of study	Technical Physics						
Date of commencement of studies	February 2024	Academic year of realisation of subject			2024/2025		
Education level	second-cycle studies	Subject group			Humanistic-social 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	2	ECTS credits			1.0		
Learning profile	general academic profile	Assessment form			assessment		
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. Mateusz Zawadzki					
	Teachers	dr hab. Mateusz Zawadzki					
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						
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	Acquainting students with principles of scientific research.						
Learning outcomes	Course outcome	Subject outcome			Method of verification		
	[K7_W08] Has the knowledge of ethical aspects of teaching, research and engineering. Knows industrial property rights and copyrights.	Knows rules of scientific and engineering ethics.			[SW1] Assessment of factual knowledge		
	[K7_U11] Independently plans own professional and research career.	Knows a scientific career track.			[SU3] Assessment of ability to use knowledge gained from the subject		
	[K7_K01] Knows limitations of own knowledge. Understands the need to learn and improve professional and personal competencies.	Knows rules of scientific and engineering ethics.			[SK5] Assessment of ability to solve problems that arise in practice		
Subject contents	1. What is science and what is not science?  2. Scientific career in Poland vs. in other countries.  3. Ethics in science and engineering.  4. Principles of using scientific literature and scientific information databases.  5. Principles of scientific writing and publishing.  6. Principles of preparations of oral presentations.						
Prerequisites and co-requisites							

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
		Grade of an essay on a prescribed subject	100.0%
Recommended reading	Basic literature	A. F. Chalmers, What is this thing called Science?, 2nd ed., University of Queensland Press, St. Lucia, 1982	
	Supplementary literature	<ol style="list-style-type: none"> <li>1. <a href="#">Ustawa o stopniach naukowych i tytule naukowym oraz o stopniach i tytule w zakresie sztuki</a></li> <li>2. <a href="#">Rozporządzenie w sprawie kryteriów oceny osiągnięć osoby ubiegającej się o nadanie stopnia doktora habilitowanego</a></li> <li>3. <a href="#">Rozporządzenie w sprawie szczegółowego trybu i warunków przeprowadzania czynności w przewodach doktorskich, w postępowaniu habilitacyjnym oraz w postępowaniu o nadanie tytułu profesora</a></li> <li>4. M. Mazur, Historia naturalna polskiego naukowca, PIW, Warszawa, 1970</li> <li>5. CRA-W Career Mentoring Workshops Booklet</li> <li>6. <a href="#">Opracowanie "Rzetelność w badaniach naukowych oraz poszanowanie własności intelektualnej"</a></li> <li>7. <a href="#">Kodeks Etyki Pracownika Naukowego</a></li> <li>8. <a href="#">"Dobre obyczaje w nauce" - zbiór zasad i wytycznych</a></li> <li>9. <a href="#">Opracowanie "Dobra praktyka naukowa"</a></li> <li>10. Z. Cywiński, O nową filozofię budownictwa, Wydawnictwo Politechniki Gdańskiej, Gdańsk, 2009 (wyd. 1), 2010 (wyd. 2)</li> </ol>	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed	Essay "Plagiarism".		
Work placement	Not applicable		