GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Methodology of scientific research, PG_00031934		
Field of study	Technical Physics		
Date of commencement of studies	February 2023	Academic year of realisation of subject	2023/2024
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_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
[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_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

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

<table>
<tr><td>Assessment methods and criteria</td><td colspan="2"><table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Grade of an essay on a prescribed subject</td><td>100.0%</td><td>100.0%</td></tr>
</table></td></tr>
<tr><td rowspan="3">Recommended reading</td><td>Basic literature</td><td>A. F. Chalmers, What is this thing called Science?, 2nd ed., University of Queensland Press, St. Lucia, 1982</td></tr>
<tr><td>Supplementary literature</td><td>1. Ustawa o stopniach naukowych i tytule naukowym oraz o stopniach i tytule w zakresie sztuki

2. Rozporządzenie w sprawie kryteriów oceny osiągnięć osoby ubiegającej się o nadanie stopnia doktora habilitowanego

3. Rozporządzenie w sprawie szczegółowego trybu i warunków przeprowadzania czynności w przewodach doktorskich, w postępowaniu habilitacyjnym oraz w postępowaniu o nadanie tytułu profesora

4. M. Mazur, Historia naturalna polskiego naukowca, PIW, Warszawa, 1970

5. CRA-W Career Mentoring Workshops Booklet

6. Opracowanie "Rzetelność w badaniach naukowych oraz poszanowanie własności intelektualnej"

7. Kodeks Etyki Pracownika Naukowego

8. "Dobre obyczaje w nauce" - zbiór zasad i wytycznych

9. Opracowanie "Dobra praktyka naukowa"

10. Z. Cywiński, O nową filozofię budownictwa, Wydawnictwo Politechniki Gdańskiej, Gdańsk, 2009 (wyd. 1), 2010 (wyd. 2)</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:
Metodologia pracy naukowej - Moodle ID: 34798
https://enauczanie.pg.edu.pl/moodle/course/view.php?id=34798</td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td colspan="2">Essay "Plagiarism".</td></tr>
<tr><td>Work placement</td><td colspan="2">Not applicable</td></tr>
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