GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Research project I, PG_00061297		
Field of study	Mathematics		
Date of commencement of studies	October 2023	Academic year of realisation of subject	2023/2024
Education level	second-cycle studies	Subject group	Optional subject group Subject group related to scientific research 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	1.0
Learning profile	general academic profile	Assessment form	assessment
Conducting unit	Divison of Nonlinear Analysis -> Institute of Applied Mathematics -> Faculty of Applied Physics and Mathematics		
Name and surname of lecturer (lecturers)	Subject supervisor	dr inż. Magdalena Chmara	
	Teachers	dr inż. Magdalena Chmara dr inż. Anna Szafrańska dr inż. Maciej Starostka dr inż. Jakub Maksymiuk dr inż. Karol Wroński	

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	15.0	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	The aim of the course is to prepare students to conduct research. At the beginning, students become acquainted with the researcher's skills, learn what scientific work involves, how scientific articles are written, learn a specialized language and tools used in scientific work, as well as become acquainted with the formal aspects of conducting scientific research, including the doctoral studies and the of financing research projects in Poland and abroad.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[K7_U02] Has the ability to check the correctness of conclusions in constructing formal proofs, sees formal structures related to the basic areas of mathematics in mathematical issues and understands the importance of their properties.	The student understands the use of specialized literature, examines the truthfulness of the hypotheses, and is able to formulate and prove abstract mathematical theorems.	[SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools
[K7_K03] Can work as a team; understands the necessity of systematic work on all projects that are long-term in nature, understands and appreciates the importance of intellectual honesty in one's own activities and the activities of other people; behaves ethically.	The student is able to work in a research team of several people, completes assigned tasks according to the schedule, divides tasks within the team, is able to share his or her results with others, adapts to established teamwork standards	[SK1] Assessment of group work skills [SK2] Assessment of progress of work [SK3] Assessment of ability to organize work [SK4] Assessment of communication skills, including language correctness
[K7_W05] Has enhanced knowledge of a selected branch of mathematics: knows most classical definitions and theorems and their proofs, Understands problems being examined, Knows relations between problems from particular field with other branches of mathematics, theoretical and applied	The student uses a specialized language appropriate to his/her specialty, independently searches for and analyzes new scientific research results, is able to assess their credibility and usefulness, has knowledge of existing IT solutions in the global scientific work process, and is able to select the appropriate IT tool for the needs of current scientific work.	[SW3] Assessment of knowledge contained in written work and projects [SW1] Assessment of factual knowledge

Subject contents

What would I have liked to have known when I started my scientific work?
About the scientific method
Doctoral studies. Obtaining funds for scientific research in Poland and abroad
English in the work of a scientist
IT tools in scientific work

Prerequisites and co-requisites

General knowledge of mathematics obtained during bachelor's studies. Basic knowledge of English.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Exercises	50.0%	100.0%

Recommended reading

Basic literature	Writing Mathematical Papers in English. A Practical Guide (Gdańskie Wydawnictwo Oświatowe, 1993; second revised edition, European Mathematical Society, 2005) Mathematical English Usage. A Dictionary (online, 2000, continuously modified)
Supplementary literature	https://www.youtube.com/@cnepg Wheres My Mentor?! Characterizing Negative Mentoring Experiences in Undergraduate Life Science ResearchLisa B. Limeri, Muhammad Zaka Asif, Benjamin H. T. Bridges, David Esparza, Trevor T. Tuma, Daquan Sanders, Alexander J. Morrison, Pallavi Rao, Joseph A. Harsh, Adam V. Maltese, and Erin L. DolaPublished Online:22 Nov 2019https://doi.org/10.1187/cbe.19-02-0036

	eResources addresses	Podstawowe https://www.youtube.com/watch?v=FtrEXWbNRzQ - https://arxiv.org/ - free distribution service and an open-access archive, , access date: October 27, 2023 https://www.researchgate.net/ - Researchgate, access date: October 27, 2023 https://www.fnp.org.pl/ - Foundation for Polish Science, access date: October 27, 2023 https://www.ncn.gov.pl/ - National Science Center, access date: October 27, 2023 https://www.scopus.com/h - Scopus, access date: October 27, 2023 https://mathscinet.ams.org/mathscinet/publications-search - AMS, access date: October 27, 2023 https://www.mathjobs.org/ - search engine for job offers for mathematicians at universities, access date: October 27, 2023 https://www.impan.pl/pl/dzialalnosc/centrum-banacha/konferencje - conferences in the Banach center, access date: October 27, 2023 https://conference-service.com/conferences/mathematics-research.html - conference search engine, access date: October 27, 2023 https://www.daad.de/ - DAAD, , access date: October 27, 2023 https://nawa.gov.pl/ - National Agency for Academic Exchange, access date: October 27, 2023 Adresy na platformie eNauczanie: Projekt Badawczy I - Moodle ID: 34673 https://enauczanie.pg.edu.pl/moodle/course/view.php?id=34673
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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