

Subject card

Subject name and code	Tutorial II, PG_00189375						
Field of study	Mathematical Modeling and Data Analysis						
Date of commencement of studies	October 2026		Academic year of realisation of subject		2026/2027		
Education level	Bachelor's 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	academic		Assessment form		credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr Marta Frankowska				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	10.0	0.0	0.0	0.0	10
	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	10		0.0		15.0	25
Subject objectives	• Highlighting the importance of caring for mental well-being and coping with the stress of studying. • Developing rigorous reasoning skills and consolidating the basic knowledge necessary for studying mathematics. • Monitoring and supporting the student's learning process. • Supporting individual development planning, equipping students with the knowledge and tools that enable such planning. • Developing effective teamwork skills and developing the competencies necessary for collaborative planning • Developing skills in developing and presenting (e.g., promotional materials)						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[MMiADL3_U10] is able to talk about mathematical issues, and issues related to mathematical modeling and data analysis, in understandable language, present and evaluate different opinions and positions and discuss them	the student is able to use rigorous reasoning and precisely formulate arguments	[SU1] oral statement/conversation/discussion
	[MMiADL3_K04] is ready to think and act in an entrepreneurial and responsible manner and to initiate, coordinate and participate in projects for the social environment and the public interest.	the student is ready to design and work on projects for the faculty and university (e.g. popularizing science) and to plan individual development	[SK2] presentation/project/paper/report
	[MMiADL3_K01] is ready to acquire knowledge in order to solve cognitive and practical problems related to the field of mathematics and to use the opinions and assistance of experts	the student is ready to work on tasks related to mathematics (e.g. popularization tasks), use literature	[SK8] observation of student's independent or team work
	[MMiADL3_U12] is able to work in a team, plan and organize such work	the student is able to work as a team member, design and implement a solution to a mathematics-related task (e.g. popularization task) together with the team	[SU8] observation of student's independent or team work
Subject contents	• Mental well-being and stress management. • The role and importance of proof in mathematics, the concept of assumption significance. Proof techniques. • Practicing the precise formulation of statements and questions to deepen one's understanding of a given topic or identify missing elements of reasoning. • Personal development planning • Science popularization • Developing effective teamwork skills and developing the competencies necessary for collaborative planning • Developing skills in developing and presenting content (such as promotional materials)		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Observation of student attitude	51.0%	0.0%
	Activity	51.0%	30.0%
	Project	51.0%	70.0%
Recommended reading	Basic literature	• Soiferman L.K.: How to Succeed in University and College:: A Handbook for Students 2017 • Martin Aigner; Günter M. Ziegler: Proofs from THE BOOK, Springer Berlin, Germany • Richard Hammack: Book of Proof	
	Supplementary literature	• Barbara Oakley: A Mind for Numbers Penguin Lcc Us, Penguin Lcc Us 2014 • Dweck, Carol S.: Mindset: The New Psychology of Success • Cal Newport: How to Become a Straight-A Student: The Unconventional Strategies Real College Students Use to Score High While Studying Less, Three Rivers Press • Jake Knapp, John Zeratsky: Make time. How to focus on what matters every day,Bantam Press • Carnegie, Dale: Jak przestać się martwić i zacząć żyć , Studio Emka, • Kahneman, Daniel: Pułapki myślenia. O myśleniu szybkim i wolnym : Media Rodzina Poznań 2012	
	eResources addresses	Basic https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://dpvipracollege.ac.in/wp-content/uploads/2023/01/Proofs-from-THE-BOOK-PDFDrive-.pdf&ved=2ahUKEwjFvt7MqJWRAXWWnf0HHeQ1B6gQFnoI-Martin Aigner Günter M. Ziegler Proofs from THE BOOK Springer Berlin, Germany https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://richardhammack.github.io/BookOfProof/Main.pdf&ved=2ahUKEwjw2qOLqZWRAXUigf0HHXP2GdwQFnoECBAoNLbSYTwqoFPCse7d-Book of Proof Third Edition Richard Hammack	
Example issues/ example questions/ tasks being completed	not applicable		

Work placement	Not applicable
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