

Subject card

Subject name and code	Collaborative Project III, PG_00155354						
Field of study	Mathematical Modeling and Data Analysis						
Date of commencement of studies	October 2025		Academic year of realisation of subject			2026/2027	
Education level	Master's studies		Subject group			Obligatory subject group in the field of study Optional subject group	
Mode of study	full-time studies		Mode of delivery			at the university	
Year of study	2		Language of instruction			Polish	
Semester of study	4		ECTS credits			5.0	
Learning profile	academic		Assessment form			credit	
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr Rafał Lutowski				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	60.0	0.0	0.0	0.0	60
	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	60		5.0		60.0	125
Subject objectives	The purpose of the course is to familiarize students with the ways, tools, methodologies of working in group projects to implement projects also according to the ideas of students, as well as to improve competence in teamwork skills. Selected teams will prepare for the implementation of research and development projects prepared and supervised by companies cooperating with the university.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[MMiADMU2_U07] is able to define his interests and develop them; in particular, is able to establish contact with specialists in their field, e.g. understand their lectures intended for young mathematicians	The student uses his/her interests during the project and develops them through collaboration with team members and consultation with industry experts.	[SU8] observation of student's independent or team work
	[MMiADMU2_K04] is ready to understand and appreciate the importance of intellectual honesty in the actions of himself and others; is ready to act ethically	The student respects his/her own and other participants' contributions to the team project.	[SK8] observation of student's independent or team work
	[MMiADMU2_W06] knows and understands the principles of health and safety at work sufficiently to work independently in the profession of a mathematician	The student is familiarized with the health and safety rules of the computer lab and office environment.	[SW1] oral statement/ conversation/discussion
	[MMiADMU2_K03] is ready for teamwork; understands the necessity of systematic work on all projects that are of a long-term nature	The student collaborates with the group to divide the tasks of the project and establish a work schedule.	[SK8] observation of student's independent or team work
	[MMiADMU2_K05] is ready to independently search for information in literature, also in foreign languages	The student is studying the literature on the substantive issues of the project and the documentation of the tools used.	[SK1] oral statement/conversation/ discussion [SK8] observation of student's independent or team work
	[MMiADMU2_U11] can evaluate, at a basic level, the usefulness of mathematical methods and IT tools	The student selects the appropriate tools to solve the problem posed by the project, as well as to organize the work of the team.	[SU1] oral statement/conversation/ discussion [SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
	[MMiADMU2_K02] is ready to precisely formulate questions to deepen his own understanding of a given topic or to find missing elements of reasoning	By posing questions on a given problem, the student identifies areas that he is able to solve on his own and those in which he needs to deepen his knowledge or enlist the help of project participants.	[SK1] oral statement/conversation/ discussion [SK8] observation of student's independent or team work
[MMiADMU2_K01] is ready to recognize the limitations of his own knowledge and is ready to continue his education	The student is aware that working in projects related to data modeling and analysis in the broad sense requires continuous education.	[SK2] presentation/project/paper/ report [SK8] observation of student's independent or team work	
Subject contents	1. Agreeing on how to work on the project. 2. Tools to support group work on the project. 3. Reporting on the progress of the work. 4. Regular identification and implementation of improvements in the way of working. 5. Presenting the effect of the project.		
Prerequisites and co-requisites			
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	report	51.0%	100.0%
Recommended reading	Basic literature	1. J. Philips: <i>Zarządzanie projektami IT</i> . Gliwice. Helion. 2011. 2. R.K. Wysocki: <i>Effective Project Management: Traditional, Agile, Extreme</i> . Indianapolis. 2009.	
	Supplementary literature	adapted to the implemented project	
	eResources addresses		
Example issues/ example questions/ tasks being completed	• creation of an image classification model • creation of a credit risk model		
Work placement	Not applicable		

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