GDAŃSK UNIVERSITY OF TECHNOLOGY

Subject card

Subject name and code	Diploma laboratory, PG_00062763
Field of study	Technologies for Industry 5.0

Date of commencement of studies	October 2025	**Academic year of realisation of subject**	2027/2028
Education level	first-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	3	**Language of instruction**	Polish
Semester of study	6	**ECTS credits**	4.0
Learning profile	general academic profile	**Assessment form**	assessment

Conducting unit	Institute Of Nanotechnology And Materials Engineering -> Faculty Of Applied Physics And Mathematics -> Wydziały Politechniki Gdańskiej

Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. inż. Jacek Ryl
	Teachers	

Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	45.0	0.0	0.0	45
	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	45	10.0	45.0	100

Subject objectives	The aim of the subject is to acquire knowledge and practical skills necessary for the proper implementation of tasks set as part of the diploma thesis. Planning research work, identifying tools, practical conduct of research/analysis, principles and methods of analyzing results and their presentation.

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[K6_K03] effectively, clearly and unambiguously conveys information, describes activities and communicates their results and opinions of a specialist engineer using appropriate communication methods and tools	The student is able to synthetically present the results obtained at subsequent stages of the diploma thesis implementation.	[SK2] Assessment of progress of work [SK4] Assessment of communication skills, including language correctness
	[K6_W06] demonstrates knowledge related to data analysis and engineering, machine learning, knows the principles of integrating data with management systems to analyze complex engineering and technological problems	The student has knowledge in the field of data engineering and integrating and analyzing information obtained during the implementation of the diploma thesis	[SW1] Assessment of factual knowledge [SW2] Assessment of knowledge contained in presentation
	[K6_K82] is equipped to participate in lectures, seminars and laboratory classes conducted in foreign language	The student is able to effectively search English-language sources for information necessary to complete the task.	[SK4] Assessment of communication skills, including language correctness
	[K6_U06] performs analysis, exploration and cleaning of data sets, can use statistical models and machine learning models, integrate various analytical, management and data storage tools	The student is able to develop and analyze data sets, process data using various tools.	[SU2] Assessment of ability to analyse information [SU4] Assessment of ability to use methods and tools [SU1] Assessment of task fulfilment
	[K6_W03] demonstrates knowledge on materials used in industrial technologies, their structure and fabrication, knows the principles of conducting research, analyzing it and creating technical documentation	The student knows the characteristic features of various materials and technologies and is able to select the appropriate one to solve a specific research problem.	[SW1] Assessment of factual knowledge [SW3] Assessment of knowledge contained in written work and projects
	[K6_U03] has the ability to plan, prepare and carry out engineering activities using practical knowledge and understanding of the specificity of materials, devices and tools, processes and technologies, and prepare a substantive report	The student is able to use the knowledge acquired during the studies to properly plan research procedures and tools necessary for the proper implementation of the diploma thesis.	[SU1] Assessment of task fulfilment [SU2] Assessment of ability to analyse information [SU3] Assessment of ability to use knowledge gained from the subject

Subject contents	The course program includes elements of individual work by the student with the diploma project supervisor, as well as with specific research teams within the topics covered in the engineering thesis.
Prerequisites and co-requisites	

Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	Evaluation of the development of the research results	50.0%	100.0%

Recommended reading	Basic literature	Textbooks and publications agreed with the teacher taking care of the thesis.
	Supplementary literature	Textbooks and publications agreed with the teacher taking care of the thesis.
	eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed	Issues consistent with the subjects of the Master's degree projects.
Work placement	Not applicable

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