



## Subject card

Subject name and code	Research laboratory, PG_00059386						
Field of study	Mechanical Engineering						
Date of commencement of studies	February 2024	Academic year of realisation of subject			2024/2025		
Education level	second-cycle studies	Subject group			Optional subject group		
Mode of study	Part-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	Zakład Maszyn Przepływowych -> Institute of Energy -> Faculty of Mechanical Engineering and Ship Technology						
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. inż. Krzysztof Kosowski					
	Teachers						
Lesson types and methods of instruction	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	0.0	9.0	0.0	9
	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	9		2.0		14.0	25
Subject objectives	The main aim is to prepare students to research work (theoretical, design and experimental investigations), to give them basic principles of experimental design (planning), research methods and analysis of results, formulating conclusions and presentation of results						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K7_U03] is able to prepare construction, technological and operational documentation in compliance with appropriate standards, including technical drawings in CAD 2D and 3D systems		Student can prepare technical documentation		[SU1] Assessment of task fulfilment		
	[K7_U01] is able to acquire information from specialist literary sources and other sources regarding the construction and operation of machines and related disciplines in Polish and in a foreign language, is able to conduct a self-learning process, is able to synthesize the information, form conclusions and justify opinions		Student can make use of available data sources		[SU4] Assessment of ability to use methods and tools		
Subject contents	Problems of experimental investigations (theoretical, design and experimental investigations), to give them basic principles of experimental design (planning), research methods and analysis of results, formulating conclusions and presentation of results						
Prerequisites and co-requisites	lectures on turbomachinery						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	report		60.0%		100.0%		
Recommended reading	Basic literature		M. Korzyński, Metodyka eksperymentu, PWN WNT, wyd.2, 2021 (in Polish)				
	Supplementary literature		Literature will be suggested by lecturer according to the particular tasks				
	eResources addresses		Adresy na platformie eNauczanie:				

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable