



Subject card

Subject name and code	Data analysis in the energy sector , PG_00055987						
Field of study	Power Engineering, Power Engineering, Power Engineering						
Date of commencement of studies	October 2023		Academic year of realisation of subject		2026/2027		
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	4		Language of instruction		Polish		
Semester of study	7		ECTS credits		1.0		
Learning profile	general academic profile		Assessment form		assessment		
Conducting unit	Department of Geotechnical and Hydraulic Engineering -> Faculty of Civil and Environmental Engineering -> Faculties of Gdańsk University of Technology						
Name and surname of lecturer (lecturers)	Subject supervisor		dr inż. Wojciech Artichowicz				
	Teachers						
Lesson types	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		1.0		9.0	25
Subject objectives	Introduction of basic data analysis using the calculation module.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[K6_K04] is able to formulate opinions on technical and technological processes in energy and sanitary engineering		Is able to report the results of data analysis in the context of a given field.		[SK5] Assessment of ability to solve problems that arise in practice		
	[K6_U12] can correctly choose tools (analytical or numerical) to solve engineering problems filtration processes, and data analysis; is able to use photogrammetric and remote sensing tools in engineering tasks in the field of geodetic techniques and metrology		Can perform data analysis in a spreadsheet.		[SU1] Assessment of task fulfilment [SU4] Assessment of ability to use methods and tools		
Subject contents	Course content – project • Data Formats (long / wide) • Data sources (files, databases) • Data Filtering and Searching • Combining Data from Various Sources • Calculating Basic Statistics • Statistical Charts (Boxplot, Histogram, Scatterplot, Time Series Chart) • Data Analysis and Reporting • Data reporting dashboards						
Prerequisites and co-requisites	Knowledge of spreadsheet basics.						
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	Assessment of task implementation		60.0%		100.0%		
Recommended reading	Basic literature		Jordan Goldmeier, Data Smart: Using Data Science to Transform Information into Insight				
	Supplementary literature		Jared P. Lander, R for Everyone: Advanced Analytics and Graphics				
	eResources addresses						

Example issues/ example questions/ tasks being completed	Implementation of a data analysis project from dataset import to report/dashboard.
Practical activities within the subject	Not applicable

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