University of Gdańsk

Subject card

Subject name and code	Business Outcomes of Big Data Analysis, PG_00179995		
Field of study	Finance and Accounting, Informatics and Econometrics, Management, Management of Healthcare Institutions, Sport Management		
Date of commencement of studies	October 2025	Academic year of realisation of subject	2025/2026
Education level	Bachelor's studies	Subject group	Optional subject group
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	English
Semester of study	2	ECTS credits	2.0
Learning profile	academic	Assessment form	credit
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor	dr Jacek Maślankowski	
	Teachers	dr Jacek Maślankowski	

Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	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	34.0	50

Subject objectives	proposes a data processing model tailored to defined requirements, critically evaluates existing data sources, characterizes relationships within data sets.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[ZSSML3_W01] The student as advanced knowledge in the discipline of management and quality sciences and understands its interrelationship with other social sciences.	The student has knowledge of research conducted using BIg Data systems and their impact on the development of management and quality sciences.	[SW2] presentation/project/paper/ report
[ZARZL3_W01] The student has advanced knowledge and understanding of the nature and evolution of management, quality sciences, economics, and finance theories, along with their place in the social sciences system — particularly their relevance to business decision-making.	The student knows and understands how Big Data systems support decision-making processes in business.	[SW2] presentation/project/paper/ report
[IiEL3_W01] The student knows and understands to an advanced degree the nature and evolution of theories in management, quality sciences, economics, and finance, along with their place in the social sciences system —especially in applying informatics or statistics tools.	The student knows and understands IT and statistical methods and tools used in projects using Big Data sets.	[SW2] presentation/project/paper/ report
[ZISZL3_W01] The student has advanced knowledge of the discipline of management and quality sciences and understands its interrelationships with other social sciences.	The student has knowledge of research conducted using BIg Data systems and their impact on the development of management and quality sciences.	[SW2] presentation/project/paper/ report
[FiRL3_W01] The student has advanced knowledge and understanding of the nature and evolution of management, quality, economics, and finance theories and their place in the social sciences system, particularly from the perspectives of finance and accounting.	The student knows and understands the essence of Big Data systems in the field of social research, as well as from the perspective of financial and accounting data.	[SW2] presentation/project/paper/ report

Subject contents

1. Overview of Big Data Analytics (goals, methods, types of analysis, classifications)

2. Types of data in Big Data Analytics (machine generated data, human generated data, business mediated data)

3. Internet Marketing finding value in data and the quality of Big Data (hyperdimensions and attributes)

4. Data Mining, Text Mining, Web Mining, Machine Learning Tools, LLM

5. Big Data ecosystem (tools and software for analysis)

6. Practical aspects of Big Data implementation

7. Case studies

Prerequisites and co-requisites

Knowledge of databases

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Students activity during classes	51.0%	20.0%
Project of a system that use BIg Data sources	51.0%	80.0%

Recommended reading	Basic literature	Hawker, M. (2025) The Data Hero Playbook: Developing Your Data Leadership Superpowers, Wiley Mayer-Schonberger, V., Cukier, K. (2013) Big Data: A Revolution That Will Transform How We Live, Work, and Think, Eamon Dolan/Houghton Mifflin Harcourt
	Supplementary literature	Woods, G. (2024) The AI-Driven Leader: Harnessing AI to Make Faster, Smarter Decisions., AI Thought Leadership Publisher Glass, R., Callahan, S., (2015) The Big Data-Driven Business: How to Use Big Data to Win Customers, Beat Competitors, and Boost Profits, John Wiley & Sons
	eResources addresses	
Example issues/ example questions/ tasks being completed	A Big Data system project presenting real estate prices collected from the internet A Big Data system project with sentiment analysis based on online comments A Big Data system project identifying business types based on website content	
Work placement	Not applicable	

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