University of Gdańsk

Subject card

Subject name and code	Business Outcomes of Big Data Analysis, PG_00188975		
Field of study	Finance and Accounting, Informatics and Econometrics, 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	part-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	8.0	0.0	0.0	0.0	0.0	8

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	8	1.0	41.0	50

Subject objectives

familiarizing students with a comprehensive approach to processing large data sets,
preparing students to use Big Data systems,
preparing students to write Python scripts.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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.	proposes a data processing model tailored to defined requirements, critically evaluates existing data sources, characterizes relationships within data sets.	[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.	proposes a data processing model tailored to defined requirements, critically evaluates existing data sources, characterizes relationships within data sets.	[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.	proposes a data processing model tailored to defined requirements, critically evaluates existing data sources, characterizes relationships within data sets.	[SW2] presentation/project/paper/ report

<table>
<tr><td>Subject contents</td><td>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 and Machine Learning Tools

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

6. Practical aspects of Big Data implementation - MapReduce algorithms, regular expressions

7. Case studies</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Knowledge of databases</td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Activity during classes</td><td>51.0%</td><td>30.0%</td></tr>
<tr><td>Projekt</td><td>51.0%</td><td>70.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>Dasgupta, N., (2020) Practical Big Data Analytics, Packt Publishing.

Mayer-Schonberger, V., Cukier, K., (2013) Big Data: A Revolution That Will Transform How We Live, Work, and Think, Eamon Dolan/Houghton Mifflin Harcourt</td></tr>
<tr><td>Supplementary literature</td><td>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

Documentation of Apache Hadoop: hadoop.apache.org

Documentation of Apache Spark: spark.apache.org

Documentation of Python language: python.org</td></tr>
<tr><td>eResources addresses</td><td>Supplementary
https://www.python.org/doc/ - Documentation of Python language</td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td>Price comparison using web scraping
Sentiment analysis of online comments
Real estate price estimation</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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