WSB MERITO UNIVERSITY GDANSK

Data Scientist

POSTGRADUATE STUDIES

Study form: Online

Features: From October • English

City: Gdańsk

The program is::

- For those who want to enter the world of data analysis and Big Data.
- For those who want to change careers and gain new skills.
- For specialists who want to make decisions based on data.
- For everyone who wants to work with Python, SQL, and R on a daily basis.
- For those who focus on practice!

Additional information

Big Data is a global trend—an increasing volume of data requires new tools for searching, collecting, processing, and analyzing. Properly used data can have a real impact on business development.

The greatest value of Big Data is not just information gathering, but its practical use. Insights from data analysis help boost business competitiveness. Everything is done in accordance with applicable law.

92%
participants recommend postgraduate studies

Source: "Study Satisfaction Survey 2025".

91%
employers rate cooperation with our universities as very good or good

Source: "Employer Opinion Survey, 2024".

Networking and competence growth
■ The studies build **skills** at any experience level.
■ Interactive classes and exchanging experiences give you **knowledge, skills, and valuable contacts**.

Microsoft 365
Our participants receive a free A1 license that includes popular apps like Outlook, Teams, Word, PowerPoint, Excel, OneNote, SharePoint, Sway, and Forms.

We focus on tools like:
■ SQL, Python, R, Java, Power BI, Apache Spark, Microsoft Azure, Kafka, and NoSQL databases.

Expert instructors
■ Our instructors are **experts** in many fields.
■ In classes, they discuss **phenomena and processes** using real-world examples from their work.

Practical nature of the studies:
■ some classes are held in the **form of workshops**,
■ assessment in the form of **semester tests and project defense**.

Study program

Data analysis with R (18 hours)

- R and R Studio environment, atomic types, vectors, lists, functions, data cleaning, plotting, markdown

Database systems. SQL basics (24 hours)

- ERD diagrams, Normalization, SQL DDL, SQL DML (24 h)

Programming in python (24 hours)

- Syntax, arrays, functions, Pandas, Statistics in Python

Object oriented programming in python (12 hours)

- Attributes, classes, constructor, methods, inheritance, "magic methods"

Data analysis in java (hours)

- Basic concepts of object-oriented programming, development environment and tools, what is data analysis, data science vs. data analysis, why Java, data structures - Java Collections Framework, ETL - Extract, Transform, Load processes (16 h)
- Ways of integration with relational databases, data processing in a functional approach (16 h)

Apache kafka (6 hours)

- Apache Kafka interface: a fast start to streaming data processing (6 h)

Nosql (microsoft azure) (20 hours)

- Basic concepts of NoSQL Databases - HBase, Cassandra, Impala, Neo4j (20 h)

ADVANCED DATABASES AND DATA WHOLESALE (24 hours)

- Advanced aspects of SQL and TSQL; Concepts of data warehouse modelling (ROLAP, MOLAP, HOLAP); Technologies ETL/ELT; Elements of data presentation, e.g. Power BI

Big data tools (microsoft azure) (24 hours)

- Apache Hadoop & Apache Spark (24 h)

Project (8 hours)

- Seminar (8 h)

Admission requirements

To enrol in postgraduate programmes at WSB Merito University, you must:

- hold a bachelor's, engineering or master's degree,
- submit a complete set of documents and meet the admission requirements,

Register online

Applicants are admitted on a first-come first-served basis. If you are to complete your secondary education this year, or you are studying for your first degree but have not yet earned it, **you can secure a place with us by signing up online.** Your educational service contract can be drawn up later as you have collected all of the required documents.

▪ admission is determined on a first-come, first-served basis.	Learn more

What will you learn?

- You will learn the languages and tools needed for working with data: **SQL, Python, R, and Java**.
- You will learn how to analyze data and create reports using **Power BI** and **Apache Spark**.
- You will understand how **Microsoft Azure, Kafka**, **NoSQL databases**, and data warehouses work.
- You will learn how to combine **data from different sources** and process it in a practical way.
- You will acquire **ETL skills** – that is, how to efficiently transform and load data.
- You will complete **your own project** that will summarize your acquired knowledge and expand your portfolio.