

**EUROPEAN**  
UNIVERSITY *of* BUSINESS

## **BUSINESS ANALYTICS**

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**A Postgraduate Program In English**

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Biznesu**

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**Academic Year 2021-2022**

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## Program Overview

The concept of big data is not new but it was known only to some experts in private and government laboratories. But the new development in information technology, communication through the internet, and storage solutions in the cloud, helped the concept to move from the laboratories to the mainstream, becoming a major topic for all businesses.

“Business Analytics” refers to the extensive use of data, statistical and operations research techniques, explanatory and predictive models, and fact-based management models, to gain insights and make better decisions. It is today applied in Operations Management, Supply Chain Management, Marketing, Finance, Strategic Planning, as well as in the other firm’s functions. The purpose of Business Analytics is to transform data into actions, through analysis, using problem-solving techniques. Business Analytics consists of several activities among them, statistical analysis, forecasting/extrapolation, predictive modeling, business intelligence, data mining, optimization, and simulation.

With an increasing amount of data available on their relational databases, social networks, and, all information provided through the variety of electronic devices, organizations are facing a real challenge in handling “big data” to extract from it value, by serving better their customers, or members, and enhance their future performance.

This is why, “Business Analytics” is becoming a critical capability, that each modern organization must have to guarantee its survival, as well as to develop a competitive advantage.

While technology permits today for a firm to collect a lot of data about its customers, simply collecting data is far from enough. A firm needs to extract the right information from this data, be able to use this information to identify the most relevant factors to its business performance, consumer demand, consumer behavior, types of products, and product features that are critical to customers. All this information can be used in the new product development process, to optimize the firm’s operations, and enhance the quality of customer service.

By having well-trained talent, companies will be able to extract value from their data and turn this data into valuable information, that can be turned into powerful and business actions that will help a company increase its business performance and develop a competitive advantage.

Managing a firm today in a global business environment driven by technology requires executives and managers to acquire the knowledge and develop the skills to be able to communicate with IT professionals about IT Tools and data architecture. The program will provide the participants with the fundamental knowledge to understand the challenges and opportunities in the implementation of business analytics projects in a firm and emphasizes the business perspective.

The program will be run in collaboration with the DataCamp platform, and Frontline Systems, allowing our students to have access to all DataCamp courses for free, and Frontline Systems Software.

## Course objectives:

By following the course “ Business Analytics” you will :

- Be exposed to various Business Analytics techniques (visualization, statistics & data mining) which are currently in use in data empowered business strategy in global competitive firms.
- Develop skills to apply predictive and prescriptive analytics techniques to gain business insights
- Learn how to formulate a business problem in analytical terms, solve it using software or programming language and interpret the solution
- Learn how to use the various libraries of python and R and modify them to solve your problems
- Have an overview of the skills required to transform data into actionable intelligence & decision-making.
- Enhance your communication (presentation and report writing), creative thinking, problem-solving, and analytical skills.
- Apply what you will learn in the class to what you do at work

## Target Audience

- Marketing Managers, Financial Managers, Operations Managers, Supply Chain Managers
- College students and recent graduates
- Candidates to MBA and graduate schools
- Mid-career professionals interested in gaining data literacy, and hands-on practice to interpret data in analyzing business problems.

## Benefits to Participants

- Gain a fundamental understanding of the practices and processes used by data analysts in their day-to-day job
- Learn the core and necessary statistical concepts to participate in, and lead business analytics-based projects
- Learn the key analytical skills (data cleaning, analysis, & visualization) and tools (spreadsheets, SQL, Python, and, R)
- Learn how to clean and organize data for analysis, and complete analysis and calculations using spreadsheets, SQL, Python, and, R programming
- Learn the core and necessary data mining techniques to understand how to work with large data sets and apply the appropriate data mining techniques to answer business questions
- Learn how to visualize and present data findings in dashboards, presentations and, the most important visualization platforms

## Duration and Number of Hours/ ECTS Points

Two semesters, 200 contact hours, 63 ECTS points

## Language of Instruction

All classes will be conducted in **English**. Likewise, a final project must be written and presented in English.

## Teaching Faculty

The faculty consists of experts and experienced data science and machine learning practitioners from reputable organizations. Their teaching is hands-on, based on real case studies and practical applications which will help you to understand better, how data science and machine learning concepts are used in the real world to solve concrete business problems.

## List of the Program's Activities

S/N	Course Title	No. of Contact Hours	No. of ECTS Points
<b>Compulsory</b>			
1.	Quantitative Analysis	18	4.5
2.	Digital Strategy and Innovation	10	3
3.	Introduction To Business Analytics	18	4.5
4.	Modeling Methods	10	3
5.	R-Programming	18	4.5
6.	Python Programming	18	4.5
7.	Databases and SQL	18	4.5
8.	Machine Learning	18	4.5
9.	Deep Learning	18	4.5
10.	Data Visualization	18	4.5
11.	Analytics Communication and Management	10	3
12.	Programming and Data Science Systems	10	3
13.	Mind Your Own Business Analytics Project	-	15
<b>Electives</b>			
<b>One Elective</b>			
14.	Marketing Analytics	18	4.5
15.	Risk Analytics	18	4.5
16.	Analytics in Operations and Supply Chain Management	18	4.5
<b>Total</b>		<b>200</b>	<b>63</b>

## Delivery Mode

Hybrid (F2F and online)

## Program Dates

Start: End of February, 2022

Finish: End of January, 2023

## Entry Requirements

First degree in any discipline

English language competency test (IELTS or equivalent with an acceptable score)

## **Certificates**

Participants will receive a Certificate of Postgraduate Studies (in Polish – Świadectwo Ukończenia Studiów Podyplomowych), and a Certificate of Completion and transcript in English, issued by the European University of Business.

## **Tuition Fee**

The program fee of **7500** PLN includes instruction, course materials, certificates and, transcripts.

## **Deadline for Application Submission**

EUOB will be accepting applications until the ***end of January, 2022***. Please fill out and send to us an electronic application form (downloadable from our website), alongside scanned copies of the required documents, by e-mail to: [studia.podyplomowe@euob.eu](mailto:studia.podyplomowe@euob.eu) or hard copies of the form and documents to the postal address given above.