University of Gdańsk

Subject card

Subject name and code	Introduction to Business Intelligence, PG_00199347		
Field of study	Economics		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
Education level	Master's studies	Subject group	Obligatory subject group in the field of study 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	1	Language of instruction	Polish Polish
Semester of study	2	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Department of International Economics and Economic Development -> Faculty of Economics -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Stanisław Umiński	
	Teachers	dr Aleksandra Borowicz dr hab. Stanisław Umiński	

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	2.0	8.0	25

Subject objectives

The aim of the course is to introduce the student to the issues of Business Intelligence in the activities of companies , especially in the areas of company management and its transformation . The student will learn about the role of data in business processes , the concept of data - driven organizations , and will also learn about the concepts and conditions of VUCA , BANI and RAAT . Key data mining methods , data warehouses and examples of BI application in practice will be discussed .

Learning outcomes

Course outcome	Subject outcome	Method of verification
[EKONMU2_U02] can use acquired knowledge to describe and analyse the causes and course of economic and social processes and phenomena, and can formulate his/her own opinions and critically select data and analysis methods based on the achievements of economic and social sciences	The student is able to use his/her knowledge to describe and analyze the causes and course of economic and social processes and phenomena, and is able to formulate his/her own opinions and critically select data and methods of analysis on the basis of the achievements of economic and social sciences	[SU4] test/exam - oral or written
[EKONMU2_W07] has an in-depth knowledge of economic and financial principles governing the functioning and management of economic entities and organisations, as well as of systems of legal, organisational, professional, moral and ethical norms and rules organising public structures and institutions, both in the national and international spheres	The student has an in-depth knowledge of the economic and financial principles of the functioning and management of economic entities and organizations, as well as the systems of legal, organizational, professional, moral and ethical norms and rules organizing public structures and institutions, especially in the international sphere	[SW4] test/exam - oral or written
[EKONMU2_K04] is ready to think and act in an entrepreneurial manner; adapts to new situations and conditions; undertakes challenges of creative thinking; acquires resilience to failures; can assess risks and threats and find ways of counteracting their effects	The student thinks and acts in an entrepreneurial manner; adapts to new situations and conditions, takes up the challenges of creative thinking, acquires resilience to failures, is able to assess risks and threats resulting from global conditions	[SK4] test/exam - oral or written
[EKONMU2_W08] has an in-depth knowledge of processes occurring in enterprises and economic organisations and with related areas, as well as of processes of change in public institutions; knows methods of research on the regularities governing these changes, taking into account the influence of external stakeholders on them	The student has an in-depth knowledge of the processes taking place in enterprises and economic organizations and at the interface with related areas, as well as the processes of change in public institutions, knows the methods of examining the regularities governing these changes, taking into account the impact of external stakeholders on them	[SW4] test/exam - oral or written
[EKONMU2_U06] can practically apply various forms and range of acquired knowledge in economics, finance and management, supplementing it with an independent critical analysis of its efficiency and usefulness	The student uses in practice various forms and scope of acquired knowledge in the field of economics, finance and management, supplementing it with an independent critical analysis of the effectiveness and usefulness in terms of analyses in the open economy	[SU4] test/exam - oral or written
[EKONMU2_W01] has an in-depth knowledge of the nature of social sciences and their place in the system of sciences; understands the differences between contemporary trends in economic thought; knows the claims of contemporary economic theories	The student has an in-depth knowledge of the nature of social sciences, their place in the system of sciences, understands the differences between contemporary currents of economic thought, knows the statements of contemporary economic theories relating to functioning in the environment of an open economy	[SW1] oral statement/ conversation/discussion
[EKONMU2_K05] correctly identifies, diagnoses and solves advanced dilemmas and alternative solutions related to the profession	The student identifies, diagnoses and resolves dilemmas and various variants of solutions related to the determinants of international economic relations	[SK4] test/exam - oral or written
[EKONMU2_U01] can creatively interpret and explain economic and social phenomena and relations between them, using acquired knowledge of economics, finance and management sciences	The student creatively interprets economic and social phenomena and the relations between them, using their knowledge of economics, international economics and finance	[SU4] test/exam - oral or written
[EKONMU2_U04] can forecast and model complex economic and social processes using quantitative and qualitative methods and tools developed by economic sciences (including statistics and econometrics)	The student forecasts and models complex economic and social processes using quantitative and qualitative methods and tools (including statistics and econometrics)	[SU4] test/exam - oral or written

<table>
<tr><td>Subject contents</td><td>1 . Decision - making in companies and BI . Business intelligence - what is it?

2 . The history of BI, the present and the future of BI in the open economy

3 . BI and managing a company and its transformation in a global, open economy

4 . Data warehouses

5 . Fundamentals of Business Analytics vs. Advanced Business Analytics

6 . Overview of BI applications in selected business areas

7 . The role of data visualization in creating the company's image and value

Students' doubts or interpretation problems will also be solved during consultations.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></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>Exam</td><td>50.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td>Recommended reading</td><td><table><tr><td>Basic literature</td><td>1. Nussbaumer Knaflic C. (2015) Storytelling danych. Poradnik wizualizacji danych dla profesjonalistów, One Press, Warszawa
2. Sherman R. (2014), Business Intelligence Guidebook: From Data Integration to Analytics, Morgan Kaufmann Publishers, Londyn
3. Surma J. (2021) Business Intelligence, Systemy wspomagania decyzji biznesowych, PWN, Warszawa
4. ABSL (2024) Business Services Sector in Poland 2024, Warszawa (współautorstwo raportu: T. Brodzicki, S. Umiński)</td></tr><tr><td>Supplementary literature</td><td>1. Jackson P., Carruthers C. (2019), Data Driven Business Transformation: How to Disrupt, Innovate and Stay Ahead of the Competition, Wiley John and Sons, London
2. Marr, B. (2021), Data Strategy: How to Profit from a World of Big Data, Analytics and Artificial Intelligence
3. Provost F., Fawcett T. (2103), Data Science for Business: What You Need to Know About Data Mining and Data-Analytic Thinking, Athenaeum Uitgeverij, New York
4. Tunowski R. (2020), Wpływ wykorzystania systemów Business Intelligence na kondycję finansową banków komercyjnych w Polsce, CeDeWu, Warszawa</td></tr><tr><td>eResources addresses</td><td></td></tr></table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>The imperative of transformation in business The importance of data for successful transformation Functioning of the organization in VUCA , BANI conditions Digital transformation Business analytics taxonomy Data warehouses , advantages of on - premises vs . cloud solutions</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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