



## Syllabus

**Field of study\* : Economy, Finance, Business  
Management, Social Science**

Subject name Financial Modelling with Business Intelligence Tools		
Subject name in English Financial Modelling with Business Intelligence Tools		
Subject code PowerBI.Poznan.Summer.School	Year / semester Bachelor	Method of evaluation Exam
Specialisation All	Track General academic	Level of qualification First-cycle programme
Mode of study Full-time	Language of instruction English	Subject Obligatory
Number of hours Lectures: 10      Classes: 8	Number of ECTS points 1.5	Block B
Responsible	Andrzej Niemiec	

### Subject's educational aims

C1	Familiarizing students with the methods and tools supporting financial decision-making with the use of basic IT tools.
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### Subject's learning outcomes

Code	Outcomes in terms of	Learning outcomes within the field of study
Knowledge		
W1	The student has knowledge about the possibilities and limitations of using spreadsheets in the creation and analysis of financial models.	K1_W04, K1_W07, K1_W08, K1_W09, K1_W13
Skills		
U1	The student is able to use the possibilities of spreadsheets to automate the conducted analyses.	K1_U09, K1_U10, K1_U11, K1_U12
U2	The student is able to automate the acquisition of financial data from external files.	K1_U12
U3	The student is able to automate the acquisition of financial data from websites.	K1_U12
U4	The student is able to build a financial model and perform various types of simulation analysis on it.	K1_U01, K1_U02, K1_U03, K1_U06, K1_U09, K1_U10, K1_U11, K1_U12
U5	The student is able to build a financial model and perform various types of optimization analyzes on it.	K1_U01, K1_U02, K1_U03, K1_U06, K1_U09, K1_U10, K1_U11, K1_U12

Social competences		
K1	The student knows the limitations of his own knowledge and the limitations in the area of financial modeling methods and tools, therefore he understands the need for continuous learning and supplementing knowledge.	K1_K01, K1_K05

### Study content

No.	Study content	Subject's educational aims	Subject's learning outcomes
1.	Modeling with Business Intelligence Tools in financial modeling - possibilities and limitations.	C1	W1, K1
2.	Basic sheet modeling techniques.	C1	W1, K1
3.	The basics of programming and the possibilities of its use in the automation of modeling processes.	C1	W1, U1, K1
4.	Automation of obtaining input data from databases and websites.	C1	W1, U1, U2, K1
5.	Sensitivity analyses.	C1	W1, U1, K1
6.	Visual financial analysis.	C1	W1, U1, U4, K1

### Bibliography

#### Obligatory

1. Materiały przygotowane przez prowadzącego / Materials provided by the teacher

#### Recommended

1. Deckler, G., Powell, B. (2018). Mastering Microsoft Power BI: expert techniques for effective data analytics and business intelligence. Packt Publishing Ltd.
2. Deckler, G. (2019). Learn Power BI: A beginner's guide to developing interactive business intelligence solutions using Microsoft Power BI. Packt Publishing Ltd.
3. Jolly, J. (2023). Create Model Calculations Using DAX. In Microsoft Power BI Data Analyst Certification Companion: Preparation for Exam PL-300 (pp. 153-186). Berkeley, CA: Apress.

Entry requirements	Basic knowledge of spreadsheets.
Teaching methods	Project method, Situational method, Conversational lecture, Lecture with multimedia presentation, Case analysis
Method of evaluation	Participation in the discussion / Participation in classes, Individual project, Conducting research, Preparing a presentation

### Settlement of ECTS points

Forms of student work	Average number of hours for student work*
Participation in lectures	10
Participation in classes	8
Preparation of the project	20

Preparation for classes	3	
Empirical or literature research	4	
Student work in total	Number of hours 45	ECTS points 1.5
Contact hours (with the teacher)	Number of hours 18	ECTS points 0.6
Practical-class work	Number of hours 18	ECTS points 0.6

\* one hour of classes = 45 minutes

### Methods of evaluating the learning outcomes

Learning-outcome code	Methods of evaluation			
	Participation in the discussion / Participation in classes	Individual project	Conducting research	Preparing a presentation
W1	x	x	x	
W1	x	x	x	x
U1	x	x	x	x
U2	x	x	x	x
U3	x	x	x	x
U4	x	x	x	x
U5	x	x	x	x
K1	x	x	x	x

### Effects

Code	Content
K1_K01	He is focused on continuous development and self-improvement
K1_K05	It complements and improves the acquired knowledge and skills in the field of finance and accounting
K1_U01	Correctly interprets economic, political and legal processes and phenomena in the area of finance and accounting, including their causes, course and consequences
K1_U02	It uses basic theoretical knowledge and acquires data to analyze specific phenomena and processes in the area of finance and accounting

K1_U03	He forecasts economic, political and legal processes and phenomena, using methods and tools standard in finance and accounting
K1_U06	It analyzes the proposed solutions to specific problems in the field of finance and accounting and proposes specific solutions in this regard
K1_U09	Uses financial management tools and assesses the situation in this area
K1_U10	Constructs a basic financial plan
K1_U11	Applies methods and tools of financial analysis of the company
K1_U12	He uses IT tools to support decisions in the field of finance and accounting
K1_W04	knows the basic methods and tools, including data acquisition and processing techniques, in the area of finance and accounting, allowing to describe the structures and processes in them and between them
K1_W07	Has basic knowledge of financial phenomena in the enterprise and the interdependence between them
K1_W08	In the interpretation of phenomena and processes taking place in the field of social and economic structures and between them, he relies on empirical foundations, fully understanding the importance of mathematical, statistical and IT methods
K1_W09	He has basic knowledge of management, in particular financial management
K1_W13	He has basic knowledge of micro- and macroeconomics