

## COURSE DESCRIPTION CARD

NOTE: If the course includes lectures and classes, the Course Description Card applies to both types of instruction.

<b>1. Course title:</b> Zaawansowana analiza danych / Advanced data analysis	<b>2. Course code:</b> Number of ECTS credits: 5,0 Course completion mode: Z Course commenced / Year 2019/2020																														
<b>3. Major: Finance and Accounting, specialisation: Finance and Accounting for International Business</b>																															
<b>4. Department of major coordinator: Department of Banking and Financial Markets</b>																															
<b>5. Name of course instructor:</b> Lecture ... Classes... Lab classes Dariusz Grabara, Ph.D., Monika Eisenhardt, Ph.D. <b>Examiner ...</b>																															
<b>6. Department of course instructor: Department of Business Informatics and International Accounting</b>																															
<b>7. Number of contact hours with students:</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 35%;">Type of instruction</th> <th style="width: 30%;">Full-time study</th> <th style="width: 35%;">Part-time study</th> </tr> </thead> <tbody> <tr><td>lectures</td><td></td><td></td></tr> <tr><td>classes</td><td></td><td></td></tr> <tr><td>foreign language classes</td><td></td><td></td></tr> <tr><td>lab classes</td><td style="text-align: center;">30</td><td></td></tr> <tr><td>seminars</td><td></td><td></td></tr> <tr><td>e-learning</td><td></td><td></td></tr> <tr><td>other</td><td></td><td></td></tr> <tr><td><b>Total hours</b></td><td style="text-align: center;">30</td><td></td></tr> <tr><td>examination (hours)</td><td></td><td></td></tr> </tbody> </table>		Type of instruction	Full-time study	Part-time study	lectures			classes			foreign language classes			lab classes	30		seminars			e-learning			other			<b>Total hours</b>	30		examination (hours)		
Type of instruction	Full-time study	Part-time study																													
lectures																															
classes																															
foreign language classes																															
lab classes	30																														
seminars																															
e-learning																															
other																															
<b>Total hours</b>	30																														
examination (hours)																															
<b>8. Course timeframe - no. of semesters: 1</b>  Course commencement / Year 2  Course commencement / Semester 4																															
<b>9. Level of tertiary education: Full-time second-cycle studies</b>	<b>10. Course status</b> <input type="checkbox"/> Compulsory for the major X <input type="checkbox"/> Compulsory for the specialization X <input type="checkbox"/> Elective																														
<b>11. Course prerequisites</b> Compulsory: Recommended:																															
<b>12. Course objectives:</b> <ul style="list-style-type: none"> <li>• Presentation of specialized knowledge related to the Excel spreadsheet for advanced economic and financial analyzes.</li> <li>• Developing skills related to the Excel spreadsheet for advanced and economic financial analysis</li> <li>• Improving social competences related to the Excel spreadsheet for business purposes.</li> </ul>																															

**13. Teaching and learning methods:**

**A. Direct student-instructor contact:**

No.	Teaching methods	Description	Number of hours	
			Full-time study	Part-time study
1.	Computer laboratory	Work with MS Excel and database software	20	
2.	Case studies	Case study and discussion using advanced analyzes for business purposes	6	
3.	Solving tasks and tests	Mid-term tests - MS Excel	4	
Total			AS:30	AN:

**B. Self-study:**

No.	Learning methods	Description	Number of hours	
			Full-time study	Part-time study
1.	Project preparation	Project (case study) - internet solutions for business and finance	20	
2.	Self-study using computer	Work with literature and online practical solutions to complete a final project	25	
3.	Analysis of notes and lessons	Analysis of notes taken during classes	15	
4.	Cause-effect study using literature	Analysis of literature related to relevant issues	10	
Total			BS:70	BN:

Total AS+BS = 100....

Examination (E) = .....

Total AS+BS+E= 100.....

Total AN+BN = .....

Examination (E) =.....

Total AN+BN+E = .....

**14. Key words:** business analysis, spreadsheets, business data, MS Excel, decision making

**15. Course content:**

1. Advanced use of Microsoft Excel:  
 Creating advanced functions (nested functions)  
 Use of data from various sources for analysis and reporting  
 Creating advanced analyzes and reports related to business data  
 Management control panels in Excel  
 Using Solver to make decisions
2. Solving cases from business practice using advanced functions of MS Excel and its options
3. Introduction to VBA. Macros and VBA instructions for solving business tasks
4. Data exchange between Excel and other software for the purposes of business analysis

**16. Course learning outcomes as related to the learning outcomes of the major and methods for assessing student attainment**

Intended learning outcomes of the major / Symbols	Intended learning outcomes of the course	Methods for assessing student learning outcomes	Documentation
<u>Knowledge</u>			

FiR2_W02#	Students have knowledge of how to use advanced Excel functions for analyzing and presenting data in business and finance	1. Final project 2. Midterm tests	1. Projects set, 2. School record
<u>Skills</u>			
FiR2_U02#	Students are able to analyze economic and financial data using the advanced capabilities of MS Excel, are able to draw conclusions about economic and financial issues and are able to use MS Excel for the business and financial institutions	1. Final project 2. Midterm test 3. Active participation in classes	1. Projects set, 2. School record
FiR2_U04#	Students can use MS Excel in a foreign language and describe practical economic issues in this language.	1. Final project 2. Midterm test 3. Active participation in classes	1. Projects set, 2. School record
<u>Social competences</u>			
FiR1_K01#	Students understand the need for continuous learning, are able to plan, implement and use ICT, especially using MS Excel for business practice	1. Final project 2. Active participation in classes	1. Projects set, 2. School record

### 17. Method for determining the final course grade:

No.	Methods for awarding credits and course completion requirements	Description	Percentage of the final course grade*
1.	Midterm tests	Set of tasks connected with advanced functions and options of Excel spreadsheet	45,00%
2.	Project	Students, in groups, work on final projects	45,00%
3.	Active participation in classes	Active participation in classes related to self-solving tasks	10,00%

\* If students are required to obtain both a class grade and an exam grade, the class grade constitutes at least 30% of the final course grade.

### 18. Reading list

#### Mandatory readings:

1. Microsoft: Excel 2013 Training. [https://support.office.com/en-us/article/excel-2013-training-aaae974d-3f47-41d9-895e-97a71c2e8a4a?wt.mc\\_id=otc\\_exc](https://support.office.com/en-us/article/excel-2013-training-aaae974d-3f47-41d9-895e-97a71c2e8a4a?wt.mc_id=otc_exc)

#### Suggested readings:

1. Winston W., Microsoft Excel 2010: Data Analysis and Business Modeling, 3rd Edition, Microsoft Press, 2012.
2. Chmielarz W., Selected Problems of Information Technology Development, Warsaw University, 2005

### 19. Language of instruction: English

### 20. Course instructors' recommendations:

Software: MS Office, MS Excel  
Lecture hall: computer room  
Classroom: computer room

Basic knowledge connected with Excel spreadsheet