UNIVERSITATEA BABEŞ-BOLYAI
BABEŞ-BOLYAI TUDOMÁNYEGYETEM
BABEŞ-BOLYAI UNIVERSITÄT
BABEŞ-BOLYAI UNIVERSITY
TRADITIO ET EXCELLENTIA

FACULTATEA DE BUSINESS IN PARTNERSHIP
Facultatea de Business

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SYLLABUS

Academic year 2022-2023

1. Information regarding the programme

1.1. Higher education institution	Universitatea Babeş-Bolyai
1.2. Faculty	Faculty of Business
1.3. Department	Business
1.4. Field of study	Business Administration
1.5. Study cycle	Bachelor
1.6. Study programme / Qualification	Business Administration (English)

2. Information regarding the course

2.1. Name of the course	Computer Applied Statistics						
2.2. Code	ILE0029						
2.3. Course coordinator	Assoc.Prof. Gabriela Petruşel, PhD						
2.4. Laboratory coordinator	Assoc.Prof. Gabriela Petruşel, PhD						
2.5. Year of study	2	2.6. Semester	II	2.7. Type of evaluation	C	2.8. Type of course	elective

3. Total estimated time (hours/semester of didactic activities)

3.1. Hours per week	3	Of which: 3.2. lecture	1	3.3 seminar/laboratory	2
3.4. Total hours in the curriculum	42	Of which: 3.5. lecture	14	3.6. seminar/laboratory	28

Time allotment:	ore
Learning using manual, course support, bibliography, course notes	22
Additional documentation (in libraries, on electronic platforms, field documentation)	22
Preparation for seminars/labs, homework, papers, portfolios and essays	22
Tutorship	2
Evaluations	2
Other activities:	7

3.7. Total individual study hours	33
3.8. Total hours per semester	75
3.9. Number of ECTS credits	3

4. Prerequisites (if necessary)

4.1. curriculum	
4.2. competencies	

5. Conditions (if necessary)

5.1. for the course	classroom with computer and projector;

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5.2. for the seminar /lab activities	classroom with computer and projector;

6. Specific competencies acquired

Professional competencies	• collecting, processing and analysing the economic data necessary in the business administration • business researching for taking a decision • support for the management of the whole enterprise / organization • usage of specific databases for business management;
Transversal competencies	• applying rigorous and efficient work rules, evidence of responsible attitudes and teaching science to optimally creative potential of their own specific situations with the principles and rules of professional ethics; • an efficient and effective organized team activities; effective use of information sources and communication resources and training assistance, both in Romanian and in a foreign language;

7. Objectives of the course (outcome of the acquired competencies)

7.1. General objective of the course	• acquire knowledge and skills in a domain with wide applicability: applied statistics
7.2. Specific objective of the course	• The ability to apply statistical techniques in marketing, finance, economics, etc. • Learning different ways of organizing, analyzing, presenting and interpreting statistical data; • Learning the main parameters characterizing a statistical series and understand their importance in the study series. • Understanding the concepts of estimator and statistical hypothesis; • Learning techniques for analyzing the relationship between statistical variables; • Learning techniques for analysis of time series;

8. Content

8.2. Laboratory	Teaching method	Remarks
1. Introductio to Statgraphics Centurion XVI	interactive discussion case studies	• DataBook • Entering data • Saving the work
2. Describe Menu	interactive discussion case studies	• Categorical Data. Tabulation • Numeric Data. One Variable Analysis • Categorical Data. Crosstabulation • Creating Plots
3. Describe Menu	interactive discussion	• Summary Statistics

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	case studies	
4. Describe Menu	interactive discussion case studies	• Confidence Intervals. Estimation of the mean. • Confidence Intervals. Estimation of the proportion. • Sample Size Determination
5. Describe Menu	interactive discussion case studies	• Confidence Intervals. Estimation of the difference between means.
6. Revision		•
7. Describe Menu	interactive discussion case studies	• Hypothesis tests for mean • Hypothesis tests for proportion
8. Describ Menu. Co,pare Menu	interactive discussion case studies	• Hypothesis Tests • Two Samples Comparison • Paired Samples Comparison
9. Compare Menu. ANOVA	interactive discussion case studies	• One-Way ANOVA • Multifactor ANOVA
10. Describe Menu	interactive discussion case studies	• Crosstabulation. Chi-squared test χ^2.
11. Relate Menu	interactive discussion case studies	• Simple regression
12. Relate Menu	interactive discussion case studies	• Multiple regression
13. Relate Menu	interactive discussion case studies	• Multiplicative Regression • Exponential Regression • Logarithmic X Regression • Polinomial Regression
14. Project presentation	interactive discussion	
Bibliografie	1. Statgraphics Centurion User Manual	

9. Corroborating the content of the course with the expectations of the epistemic community, professional associations and representative employers within the field of the program

- The laboratory content is in correspondence with what is done in other universities in the country and abroad.
- To adapt to the market demands of the contents meetings were held with representatives of the business community.

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10. Evaluation

- **The same evaluation criteria hold for all exams sessions;**
- **In order to be able to cumulate the points obtained during the semester, it is mandatory to obtain minimum 5 (five) in the final exam.**

Type of activity	10.1 Evaluation criteria	10.2 Evaluation methods	10.3 Share in the grade (%)
10.5 Laboratory	• correct logical and coherent application of the concepts learned • logical and accurate explanation and interpretation of the results; • the ability to apply concepts learned in practice • correct logical and coherent application of the concepts learned • economic explanation of the results; • interest in the individual preparation throughout the whole semester	Report the active participation in laboratory	80% 20%
10.6 Minimum performance standards			
➢ Knowledge of the fundamental concepts and their applications in examples; ➢ The economic interpretation of the results.			

Date	Course coordinator	Seminar coordinator
13.05.2022		**Gabriela PETRUȘEL, PhD**
Date of approval		**Head of department**
20.05.2022		**Cristian Ioan CHIFU, PhD**