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

FACULTATEA DE BUSINESS IN PARTNERSHIP
Facultatea de Business

Str. Horea nr.7
Cluj-Napoca, 400174
Tel.: 0264599170
Fax: 0264590110
E-mail: secretariat.tbs@ubbcluj.ro
Site: tbs.ubbcluj.ro

SYLLABUS

Academic year 2024-2025

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:					hours
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				

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3.8. Total hours per semester	75
3.9. Number of ECTS credits	3

4. Prerequisites (if necessary)

4.1. curriculum	
4.2. competencies	

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5. Conditions (if necessary)

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

6. Specific competencies acquired

Professional competencies	C1.3. Applying the appropriate tools for analyzing the relationship of influence exerted by the external environment on the enterprise/organization C5.4. Critical-constructive evaluation of data processing and analysis tools C5.5. Elaboration of a research project associated with business administration, using specific databases
Transversal competencies	CT1. Implementing ethical principles, norms and values within one's own rigorous, efficient, and responsible strategy of work

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. Lecture	Teaching method	Remarks
1. Introductio to Statgraphics Centurion XVI Describe Menu	interactive discussion case studies	• DataBook • Entering data • Saving the work • Categorical Data. Tabulation • Numeric Data. One Variable

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		Analysis • Categorical Data. Crosstabulation • Creating Plots • Summary Statistics
2. Describe Menu	interactive discussion case studies	• Confidence Intervals. Estimation of the mean. • Confidence Intervals. Estimation of the proportion. • Sample Size Determination • Confidence Intervals. Estimation of the difference between means
3. Describe Menu	interactive discussion case studies	• Hypothesis tests for mean • Hypothesis tests for proportion • Hypothesis Tests • Two Samples Comparison • Paired Samples Comparison
4. Compare Menu. ANOVA	interactive discussion case studies	• One-Way ANOVA • Multifactor ANOVA
5. Describe Menu	interactive discussion case studies	• Crosstabulation. Chi-squared test χ^2.
6. Relate Menu	interactive discussion case studies	• Simple regression • Multiple regression
7. Relate Menu	interactive discussion case studies	• Multiplicative Regression • Exponential Regression • Logarithmic X Regression • Polinomial Regression
Bibliografie	1. Statgraphics Centurion User Manual	

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	• Categorical Data. Tabulation • Numeric Data. One Variable

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	case studies	Analysis • Categorical Data. Crosstabulation • Creating Plots
3. Describe Menu	interactive discussion case studies	• Summary Statistics
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. Describe 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	
Bibliograf	2. Statgraphics Centurion User Manual	

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ie	

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.

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			

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- Knowledge of the fundamental concepts and their applications in examples;
- The economic interpretation of the results.

Date	Course coordinator	Seminar coordinator
02.04.2024	Gabriela PETRUȘEL, PhD	Gabriela PETRUȘEL, PhD

Date of approval	Head of department
17.04.2024	Cristian Ioan CHIFU, PhD