

Syllabus

1. Programme information

| | |
|------------------------|-----------------------------------------------|
| 1.1. Institution | THE BUCHAREST UNIVERSITY OF ECONOMIC STUDIES |
| 1.2. Faculty | Business Administration in Foreign Languages |
| 1.3. Departments | Department of Statistics and Econometrics |
| 1.4. Field of study | Business Administration |
| 1.5. Cycle of studies | Licence |
| 1.6. Education type | Full-time |
| 1.7. Study programme | Business Administration (in English language) |
| 1.8. Language of study | English |
| 1.9. Academic year | 2019-2020 |

2. Information on the discipline

| | | | | | | | | | |
|--------------------|--------------------------------|-------------------------------------|----------|-------------------------|-------------|-------------------------------|----------------------------|-----------------------------|----------|
| 2.1. Name | Statistics for business | | | | | | | | |
| 2.2. Code | 19.0153IF2.1-0002 | | | | | | | | |
| 2.3. Year of study | 2 | 2.4. Semester | 1 | 2.5. Type of assessment | Exam | 2.6. Status of the discipline | O | 2.7. Number of ECTS credits | 6 |
| 2.8. Leaders | C(C) | prof.univ.dr. ŞERBAN Daniela | | | | | daniela.serban@csie.ase.ro | | |
| | S(S) | prof.univ.dr. ŞERBAN Daniela | | | | | daniela.serban@csie.ase.ro | | |

3. Estimated Total Time

| | |
|-------------------------------------------------------------------------------------------|----------------|
| 3.1. Number of weeks | 14.00 |
| 3.2. Number of hours per week | 4.00 of which |
| | C(C) 2.00 |
| | S(S) 2.00 |
| 3.3. Total hours from curriculum | 56.00 of which |
| | C(C) 28.00 |
| | S(S) 28.00 |
| 3.4. Total hours of study per semester (ECTS*25) | 150.00 |
| 3.5. Total hours of individual study | 94.00 |
| <i>Distribution of time for individual study</i> | |
| Study by the textbook, lecture notes, bibliography and student's own notes | 14.00 |
| Additional documentation in the library, on specialized online platforms and in the field | 14.00 |
| Preparation of seminars, labs, assignments, portfolios and essays | 10.00 |
| Tutorials | 2.00 |
| Examinations | 4.00 |
| Other activities | |

4. Prerequisites

| | |
|---------------------|--------------------------------------|
| 4.1. of curriculum | Mathematics, Economics |
| 4.2. of competences | Marketing, Micro and Micro-Economics |

5. Conditions

| | |
|--------------|-----------------------------------------------|
| for the C(C) | classrooms with multimedia and INTERNET acces |
| for the S(S) | classrooms with multimedia and INTERNET acces |

6. Acquired specific competences

| | | |
|--------------|----|-------------------------------------------------------------------------------------------------------------------------|
| PREFESSIONAL | C1 | Data gathering, formatting and analysis regarding the interaction between the external environment and the organization |
| PREFESSIONAL | C5 | Utilization of databases specific to business administration |

7. Objectives of the discipline

| | |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7.1. General objective | Information on the place and role of Statistics within decision taking system in business administration at micro-and macroeconomic level |
| 7.2. Specific objectives | Using Statistics as tool for decisions taking. Knowing the Statistics basic concepts and data analysis method for their use in Business Administration. Quantitatively analysing the mass phenomenon, elaborating Statistical methodologies and method for statistical data collection, summarizing and analysis |

8. Contents

| 8.1. C(C) | | Teaching/Work methods | Recommendations for students |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|------------------------------|
| 1 | Introduction in Statistics. The role and place of Statistics within the antreprenorial sciences.basic concepts in Statistics. categories of data | Interactive presentation, oral presentation based on free speech and slides presentation. | |
| 2 | Presenting data summarizing and classification method according to different categories of measurement scales.The different categories of charts. | Interactive presentation, oral presentation based on free speech and slides presentation. | |
| 3 | Central tendency measures for one variable. presenting the different types of means, Median, Mode and Fractiles | Interactive presentation, oral presentation based on free speech and slides presentation. | |
| 4 | Measuring the variability. Simple and complex measures of variation for one variable. Characterizing the shape of frequency distributions | Interactive presentation, oral presentation based on free speech and slides presentation. | |
| 5 | Measuring the variation for bivariate for grouped and ungrouped data. ANOVA method. | Interactive presentation, oral presentation based on free speech and slides presentation. | |
| 6 | WRITTEN TEST | Testing the issues presented on Descriptive Statistics | |
| 7 | Sampling and survey. introduction | Interactive presentation, oral presentation based on free speech and slides presentation. | |

| | | | |
|----|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|--|
| 8 | Sampling distributions. central limit theorem. Computation and interpretation of z values. | Interactive presentation, oral presentation based on free speech and slides presentation. | |
| 9 | Interval and point estimation for normal volume and small volume samples. | Interactive presentation, oral presentation based on free speech and slides presentation. | |
| 10 | Hypothesis testing (1) | Interactive presentation, oral presentation based on free speech and slides presentation. | |
| 11 | Hypothesis testing (2) | Interactive presentation, oral presentation based on free speech and slides presentation. | |
| 12 | Index numbers | Interactive presentation, oral presentation based on free speech and slides presentation. | |
| 13 | Correlation and regression. the case of simple stochastic relationship. | Interactive presentation, oral presentation based on free speech and slides presentation. | |
| 14 | Time series description and forecast. | Interactive presentation, oral presentation based on free speech and slides presentation. | |

Bibliography

- Mitrut, C., Serban D., Mitrut CA, Statistics for Business Administration, ASE, Bucharest, 2003, [www.ase.ro/biblioteca digitala](http://www.ase.ro/biblioteca_digitala), România
- Curvin J., Quantitative methods for business decisions, Prentice Hall, New York, 2003, Statele Unite ale Americii
- Berenson ML, levine DM, Krehbiel TC, Basic Business Statistics, prentice Hall international, New York, 2005, Statele Unite ale Americii

| 8.2. S(S) | | Teaching/Work methods | Recommendations for students |
|-----------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------|
| 1 | Basic concepts used in Statistics. Discussing the request of the disciplines | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |
| 2 | Summarizing data into frequency distribution. graphical representations | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |
| 3 | Central tendency measures for ungrouped data and for frequency distributions for one variable | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |
| 4 | Measuring and analysing variability in data sets | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |
| 5 | Measuring the shape of distribution | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |

| | | | |
|----|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|--|
| 6 | ANOVA with a single factor for grouped data | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |
| 7 | Anova for ungrouped data | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |
| 8 | Simple random sampling. confidence class estimation for normal volume samples | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |
| 9 | Confidence class estimation for small samples | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |
| 10 | Hypothesis testing for normal samples | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |
| 11 | Hypothesis testing for small volum samples | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |
| 12 | Index numbers | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |
| 13 | Correlation and regression method | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |
| 14 | Time series | Applications and exercises. manual computations and comment, presenting the computation using specific softwares | |

Bibliography

- Mitrut C., Serban D., Mitrut CA, Statistics for Business Administration, ASE, Bucharest, 2003, www.ase.ro/biblioteca digitala, România
- Curvin J., Quantitative methods for business decisions, Prentice Hall, New York, 2001, Statele Unite ale Americii
- Berenson ML, Levine DM, Krehbiel TC, Basic Business Statistics, Prentice Hall International, New York, 2005

9. Corroboration of the contents of the discipline with the expectations of the representatives of the epistemic community, of the professional associations and representative employers in the field associated with the programme

Discussing the content of the discipline and of its request with experts from the National Institute of Statistics, the Romanian Society of Statistics and other expert from Marketing, Management, Financial, Insurances areas and other economic and business areas

10. Assessment

| Type of activity | Assessment criteria | Assessment methods | Percentage in the final grade |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------|
| 10.1. C(C) | course finalized with a written examination paper were the request is to compute (50%) and to interpret with specific comments applied for the exercise not general comments as a t the course for 50%). A list with formulas will be provided by the course teacher at the beginning of the exam. Simple calculators might also to be used. | written test with securised name of the student comprising only exercises to solve and comment, mininum 3 exercises | 70.00 |
| 10.2. S(S) | rezolvarea the following 3 requests: 1. frequency and activity, as evaluation method is the activity during classes, answering questions, solving exercices at the bord (10% out of the final mark), 2. written test at the course (10% out of the final mark), 3. project (10% out of the final mark) | written test at the course, project delivered printed, copied on a cd and by mail and active participation to courses | 30.00 |
| 10.3. Final assessment | puncte seminar, activity during year mark *0.5 + points from the final exam (mark of the final exam *0.5) | written tests, project and evaluating the participation to classes + a final written exam paper | |
| 10.4. Modality of grading | Whole notes 1-10 | | |
| 10.5. Minimum standard of performance | 5 points after the aplication of the algorithm: the during year mark*0.5 + exam mark * 0.5 | | |

Date of listing,
08/08/2022

Signature of the discipline leaders,

Date of approval in the
department

Signature of the Department Director,