SYLLABUS

1. Information regarding the program

1.1 Higher education institution	**UNIVERSITY OF ORADEA**
1.2 Faculty	**FACULTY OF ECONOMIC SCIENCES**
1.3 Department	**DEPARTMENT OF ECONOMICS AND BUSINESS**
1.4 Field of study	**BUSINESS ADMINISTRATION**
1.5 Cycle of study	**CYCLE I - BACHELOR**
1.6 Program of study/Degree	**BUSINESS ADMINISTRATION/ BACHELOR'S DEGREE**

2. Information regarding the discipline

2.1 Name of discipline			Economic Statistics **(FSTE-0616)**				
2.2 Course titleholder			Associate Prof. Ramona SIMUȚ				
2.3 Seminar titleholder			Associate Prof. Ramona SIMUȚ				
2.4 Year of study	I	2.5 Semester	I	2.6 Type of assessment	Ex	2.7 Type of discipline	I

(I) Compulsory; (O) Elective; (F) Facultative

3. Estimated total time (hours/semester of activities)

3.1 Number of hours/week	3	out of which: 3.2 course	2	3.3 seminar	1
3.4 Total of hours in the Curriculum	42	out of which: 3.5 course	28	3.6 seminar	14
Distribution of hours:					**83 hours**
Studying the workbook, course book, bibliography and notes					35 hours
Supplementary documentation in the library, on electronic specialty sites and in the field					20 hours
Preparing seminars/laboratories, themes, projects, portfolios and essays					26 hours
Tutorship					0 hour
Assessment activities					2 hours
Other activities.....					0 hours

3.7 Total hours of individual study	**83**
3.9 Total hours/semester	**125**
3.10 Number of credits	5

4. Pre-requisites (if applicable)

4.1 Curriculum	-
4.2 Skills	-

5. Conditions (if applicable)

5.1. concerning the course activities	Classroom equipped with video-projector, PowerPoint, magnetic board
5.2. concerning the seminar/laboratory activities	Classroom equipped with computers a video projector, PowerPoint, magnetic board

6.1. Specific skills acquired

Professional skills	C1. Collection, processing and analysis of the information regarding the interaction between business environment firm/organization C3. Administration of the activity of a subdivision of the structure of the firm/organization C4. Assistance in human resources management C5. Operating with the databases specific for business administration C6. Managing the relations with clients and suppliers.
Transversal Skills	

6.2. Learning outcomes

Knowledge	The student/graduate identifies the role of statistics in analysing economic and social phenomena, applies quantitative techniques for optimal decision-making in economic and social systems and uses statistical methods in the analysis of economic and social phenomena. The student/graduate develops practices for applying economic techniques and tools to conduct economic and financial analyses and forecasts as well as for applying quantitative methods to data analysis through testing and interpreting econometric models. The student/graduate identifies and analyses quantitative techniques for optimal decision-making in economic and social systems. The student/graduate identifies and analyses economic phenomena in intraregional and interregional contexts.
Competences	The student/graduate recognizes and applies the main statistical methods for analysing economic and social phenomena, uses statistical methods to measure and analyse economic-social processes at the macroeconomic level, analyses the concepts, models, and methods for forecasting socio-economic phenomena, understands the concepts, principles, methods, and techniques for organizing partial statistical observations, and indicates how to provide the necessary tools for the quantitative and qualitative analysis of economic phenomena. The student/graduate efficiently uses software packages for data analysis through statistical and econometric methods, applying concepts, theories, principles, and tools to investigate economic and social phenomena and processes. The student/graduate applies methods for analysing economic and social processes at both the microeconomic and macroeconomic levels.
Responsibility and autonomy	The student/graduate demonstrates responsibility in ensuring the accuracy and integrity of statistical data by applying validation and verification techniques, works independently in interpreting and analysing statistical data, contributing to informed decision-making within the organization, organizes, documents, and archives collected data, ensuring its accessibility and correctness for future use. They show autonomy in analysing the role of statistics in studying economic phenomena and in using it for microeconomic and macroeconomic decisions, apply statistical methods at the macroeconomic level, and can deepen and independently applying relevant economic concepts and analyses. The student/graduate accurately formulates statistical problems and explains key resource and outcome indicators at the macroeconomic level, demonstrating responsibility in analysis, and takes on the responsibility to design and conduct complex research, ensuring that the results are relevant and accurate. The student/graduate demonstrates responsibility in ensuring the accuracy and integrity of statistical databases by applying validation and verification techniques.

6.3. Objectives of discipline (resulting from the grid of specific skills acquired)

6.3.1 General objective of discipline	▪ Understanding the measuring, analysis and interpretation methods of economic and financial data, the formation and developing of the ability to analyse and synthesize statistical information
6.3.2 Specific objectives	▪ The explaining of the correlation between economic variables and statistical notions ▪ The appropriate use of calculus methods

	▪ The use of statistical indicators for the study of economic and financial phenomena ▪ The developing of the ability to explain statistical information ▪ The use of probability in the investigation of economic phenomena ▪ Formation of an economic researcher ▪ The formation and development to solve interdisciplinary problems ▪ The formation of research abilities.

7. Contents

7.1 Course (C)	Teaching methods	Observations
7.1.1. Introduction to statistics. The object of study. Fundamental notions. Methods for the presentation of statistical data. The gathering of statistical data	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.2. Graphical representations. Central trend parameters – the mean.	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.3. Central trend parameters – the position indicators.	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.4. The variability indicators of unidimensional series. The – the skewness of unidimensional series.	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.5. The kurtosis of unidimensional series. Concentration measures.	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.6. The analysis of the correlation between statistical variables. Nonparametrical methods.	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.7. The analysis of the correlation between statistical variables. Parametrical methods.	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.8. Statistical indexes.	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.9. Statistical indexes. Synthetical indexes, factorial indexes, indexes of two mean values.	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.10. Time series. Indicators. Components separation methods. Adjusting methods.	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.11. Partial evaluation during the semester - test	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.12. Statistical observation. Statistical errors.	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.13. Statistical surveys. Advantages and limits	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
7.1.14. Statistical surveys. Estimating the parameters from statistical surveys.	Lecture, conversation, examples, explanation, demonstrations, exercises	2 hours
Bibliography 1. Meşter, Ioana Teodora, Simuţ, Ramona, *Economic Statistics. Practical applications*, Oradea, 2017, 146p		

2. Crăciun Iancu, Vinter Angela, Simuț Ramona Marinela, *Statistică aplicată*, Editura Economică, București, 2017, ISBN 978-973-709-821-4 (311).
3. Watts, V. (2025). Introduction to Statistics – Second Edition: An Excel-Based Approach. Fanshawe College Pressbooks, https://ecampusontario.pressbooks.pub/introstats2ed
4. Holmes, A., Illowsky, B., & Dean, S. (2023). Introductory Business Statistics 2e. OpenStax, Rice University, https://openstax.org/books/introductory-business-statistics-2e/pages/preface

7.2 Seminar (S)	Teaching methods	Observations
7.2.1. Fundamental notions. Methods for the presentation of statistical data. The construction of statistical series.	Lecture, explanation, exercises	1 hour
7.2.2. Statistical indicators.	Lecture, explanation, exercises	1 hour
7.2.3. The mean. The arithmetic and harmonical mean. Simplified formulas for the calculus of the mean.	Lecture, explanation, exercises	1 hour
7.2.4. Exercises regarding the structure indicators - the median, the modal value.	Lecture, explanation, exercises	1 hour
7.2.5. Exercises regarding the synthetical variation parameters.	Lecture, explanation, exercises	1 hour
7.2.6. Exercises regarding the form indicators - the skewness, the kurtosis. The concentration of statistical series.	Lecture, explanation, exercises	1 hour
7.2.7. Exercises regarding the correlation between the statistical variables. The analysis of the existence, the intensity, the direction of a correlation. The scatterplot.	Lecture, explanation, exercises	1 hour
7.2.8. Exercises regarding the correlation between the statistical variables. The analysis of existence, the intensity, the direction of a correlation. The scatterplot. The R-squared value.	Lecture, explanation, exercises	1 hour
7.2.9. Exercises regarding the estimation of the simple linear regression equation parameters.	Lecture, explanation, exercises	1 hour
7.2.10. The simple linear correlation coefficient.	Lecture, explanation, exercises	1 hour
7.2.11. Exercises regarding the statistical indexes– an index of two means.	Lecture, explanation, exercises	1 hour
7.2.12. Exercises regarding the statistical indexes – factorial indexes.	Lecture, explanation, exercises	1 hour
7.2.13. Exercises regarding time series. Time series indicators.	Lecture, explanation, exercises	1 hour
7.2.14. The adjusting of time series.	Lecture, explanation, exercises	1 hour

Bibliography

1. Meșter, Ioana Teodora, Simuţ, Ramona, *Economic Statistics. Practical applications*, Oradea, 2017, 146p
2. Crăciun Iancu, Vinter Angela, Simuț Ramona Marinela, *Statistică aplicată*, Editura Economică, București, 2017, ISBN 978-973-709-821-4 (311).
3. Watts, V. (2025). Introduction to Statistics – Second Edition: An Excel-Based Approach. Fanshawe College Pressbooks, https://ecampusontario.pressbooks.pub/introstats2ed
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8. Corroboration of the contents of the discipline with the expectations of the epistemic community, professional associations and employers representing the field of study of the program

- The course content is consistent with what is being studied in other universities in our country and abroad.
- To better adapt the contents of the discipline to market demands there have been meeting held with the representatives of several companies in Oradea.

9. Use of generative AI-based tools

Within the Economic Statistics course, the use of generative artificial intelligence (GenAI) tools is not permitted, either during courses or seminars, when such tools are used to complete, generate, or solve academic tasks related to the course. Students are expected to complete independently and autonomously all assignments, applications, and exercises carried out during teaching activities, as well as tests, the final examination, and any optional assignments or activities given throughout the semester. These tasks may not be generated, solved, or written, either fully or partially, with the assistance of generative artificial intelligence tools. This rule is intended to support and directly assess students' competencies in statistical analysis, data interpretation, application of statistical methods, and autonomous problem-solving within the field of Economic Statistics.

10. Assessment

Type of activity	10.1 Assessment criteria	10.2 Assessment methods	10.3 Percentage of the final grade
10.4 Course (C)	The assimilation of notions. Specific language coherence.	Written paper (8 multiple-choice questions and 3 applications)	50%
10.5 Seminar (S)	The capacity to correctly solve a statistical exercise as well as to understand the statistical results from an economic perspective.	• Seminar activity • Test 1 – Multiple-choice questions and applied statistical exercises (Courses 1–5) • Test 2 – Multiple-choice questions and applied statistical exercises (Courses 6–12)	10% 20% 20%
10.9 Minimum performance standard			
▪ Learning the basic statistical notions ▪ The ability to use statistical notions to solve a simple problem ▪ The correct interpretation of the values obtained in a statistical problem ▪ Mandatory - participation in the two tests ▪ Minimum 70% attendance at the seminar (at least 5 attendances out of the 7 seminars per semester)			

Date	**Course titleholder:**	**Seminar titleholder:**
17.09.2026	Associate Prof. Ramona SIMUȚ E-mail address: rsimut@uoradea.ro	**Associate Prof. Ramona SIMUȚ** E-mail address: rsimut@uorade.ro

Director of Department,
Professor, Dorin Paul BÂC, PhD

Date of approval in the Department:

24.09.2026

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Date of approval in The Council of the Faculty of Economic Sciences:

28.09.2026

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