

STATISTICS

1. Discipline/module data

Faculty	Economic Engineering and Business Economics				
Department	Economics and Management				
Academic degree	Bachelor's Degree, first cycle				
Study-programme	0413.1 Business administration				
Year of study	Semester	Type of evaluation	Formative category	Category of optionality	Credits ECTS
I (full-time studies); II (part-time studies)	2	E	F – fundamental course unit	O - compulsory course unit	6
	3				

2. Total estimated time

Total hours in the curriculum	Including:				
	Contact hours		Individual work		
	Course	Practical lessons	Year project	Study of theoretical material	Preparing applications
180 (full-time studies)	45	30 / 15	-	45	45
180(part-time studies)	18	12/6	-	72	72

3. Prerequisites to access the discipline/module

According to the curriculum	Economic mathematics, Economic theory
According to competences	Awareness of the methods of economic theory and the application of mathematical calculation procedures.

4. Conditions for carrying out the educational process

Course	A projector is required for the presentation of theoretical material in the classroom. Students will not be tolerated to be late and telephone calls will not be tolerated during the course.
Practical lessons	In order to perform calculations students will need a pocket calculator. Students will work on the basis of the set of problems and case studies developed by the incumbent, complete the individual assignment placed on the MOODLE platform, complete individual work based on the data provided on the website https://statistica.gov.md .

5. Specific competences acquired

Professional competences	CP1. Working with scientific, economic foundations in the field of business and entrepreneurship: Using specific theories and methods to explain economic phenomena and processes.
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	▪ Elaboration of alternatives in solving problems in the field. ▪ Evaluation of alternatives in solving economic problems. ▪ Theoretical argumentation of economic solutions. CP3. solving problems using methods and tools of economics: ▪ Use of interdisciplinary knowledge of standard solutions and interpretation of the obtained results. ▪ Comparative evaluation of alternatives for economic efficiency. CP4. Evaluating and increasing enterprise performance ▪ Explain the interaction of factors that determine enterprise performance. CP6. Elaboration of alternative ways of solving problems at enterprise level. ▪ Apply fundamental principles and methods for determining economic and managerial solutions.
Transversal competences	-

6. Subject/module objectives

General objective	Formation of a statistical culture and education, which will enable the future graduate in economics to structure his general economic thinking by quantifying social-economic processes and analyzing statistical indicators at the micro and macroeconomic level.
Specific objectives	- Awareness of the process of accumulating statistical data; - Perception of the process of synthesizing statistical data; - Application of methods of processing statistical data; - Formulation of legalities based on the results of statistical analysis; - Definition of the main statistical indicators; - Application of methodologies of determining statistical indicators; - Application of the results of statistical analysis in forecasting; - Formulation of conclusions and legalities resulting from the study

7. Content of the subject/module

Topics of teaching activities	Number of hours	
	full-time study	part-time study
Lecture topics		
T1. Introduction to statistics. Object and method of statistics.	2	2
T2. Statistical observation	2	
T3. Primary processing of statistical data	2	
T4. Grouping - basic method in statistical data processing	2	2
T5. Presentation of statistical data	4	
T6. Statistical indicators.	4	
T7. Mean values.	4	2
T8. Variation indicators.	4	2
T9. Survey research.	2	
T10. Statistical analysis of time series.	4	2
T11. Statistical indices.	4	2
T12. Statistical methods for studying the interdependence of statistical data.	4	2
T13. Population statistics	2	
T14. Labor resources statistics	2	2
T15. Statistical indicators of economic potential	3	
Total course:	45	18

Topics of practical lessons		
S1. Introduction to statistics. Object and method of statistics.	2	2
S2. Statistical observation	2	
S3. Primary processing of statistical data	2	
S4. Grouping - basic method in statistical data processing	2	2
S5. Presentation of statistical data	2	
S6. Statistical indicators.	2	2
S7. Mean values.	2	
S8. Variation indicators.	4	2
S9. Survey research.	2	
S10. Statistical analysis of time series.	2	2
S11. Statistical indices.	2	
S12. Statistical methods for studying the interdependence of statistical data.	2	2
S13. Population statistics	2	
S14. Labor resources statistics	1	
S15. Statistical indicators of economic potential	1	
Total practical lessons:	30	12
Laboratory work topics		
LL1. Primary processing of statistical data. Grouping - basic method in statistical data processing.	2	2
LL2. Presentation of statistical data	2	
LL3. Statistical indicators.	2	
LL4. Mean values.	2	2
LL5. Variation indicators.	2	
LL6. Statistical analysis of dynamic series.	2	2
LL7. Statistical methods to study the interdependence of statistical data	3	
Total laboratory work:	15	6

8. References

Mains (Mandatory)	1. Course materials placed on the Moodle platform: http://moodle.utm.md/course/view.php?id=110 2. Oliver Theobald Statistics for Absolute Beginners (Second Edition) (AI, Data Science, Python & Statistics for Beginners), Kindle Edition, 2020. ISBN 13: 978-0134685779. 3. Parmanci D., Țurcan R., Dudoglo T., Metoda grafică în statistică: îndrumar metodic, Editura Centografic, Comrat, 2018.
Additional (optional)	4. David M. Levine; David F. Stephan; Kathryn A. Szabat Statistics for managers using Microsoft Excel: 9th Edition, Pearson Education Limited, 2021, ISBN: 978-1-292-33824-8 5. Mario F. Triola, Essentials of Statistics: 6th Edition, Pearson, 2018. ISBN 13: 978-0134685779 6. Jim Frost Introduction to Statistics: An Intuitive Guide for Analyzing Data and Unlocking Discoveries, Kindle Edition, 2020. ISBN 13: 978-1735431109 7. David Spiegelhalter The Art of Statistics: How to Learn from Data, Basic Books, 2021 ISBN 13: 978-1541675704 8. ȚURCAN R., STRATILA A., ȚURCAN Iu., Global perspectives on Sustainable Development Goals: statistical analysis and correlations, 5Th International Congress on Contemporary Scientific Research, Kayseri, Turkey, April 21-22, 2024, p. 344 – 356,

	https://en.ispecongress.org/files/ugd/614b1f_20bc921bee964ed0aa882a1c3cc0516d.pdf , ISBN 978-625-367-717-6, DOI: https://doi.org/10.5281/zenodo.11307771
9.	ȚURCAN R., ȚURCAN Iu., The role of electronic commerce in the development of entrepreneurship through statistical analysis, The 4th Economic International Conference Competitiveness and sustainable development, Technical University of Moldova, 3rd - 4th November 2022, p.73-78, https://doi.org/10.52326/csd2022.13 , ISBN 978-9975-45-872-6 (PDF)
10.	ȚURCAN R., ȚURCAN Iu. The development intensity of SME in the Republic of Moldova through the comparative statistical analysis with the European Union countries, The USV Annals of Economics and public Administration, Volume 20, Issue 1 (31), 2020, p.105-112, ISSN 2285-3332
11.	www.statistica.md

9. Evaluation

Education form	Periodic evaluations		Current evaluation	Individual study	Exam
	PE 1	PE 2			
full-time study	15%	15%	15%	15%	40%
part time study		25%		25%	50%
Minimum performance standard					
Attendance and involvement (activity) at lectures and practical lessons.					
Obtaining the minimum grade '5' for each type of evaluation.					