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SYLLABUS

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BUSINESS ARS EST

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EUROPEAN SCHOOL OF BUSINESS

Statistics

2022-2023

SYLLABUS

Course Name	
	Statistics

Lecturer (s)	
	Iryna Kalina, Doctor of Economics, associate professor, professor at the Department of Management, Finance and Business Administration

Lecturer's profile	
	https://business.ieu.edu.ua/pro-yemsh/struktura-kafedry-vykladachi/kafedry/kafedra-menedzhmentu#kalina

Consultations	
online consulting	–
offline consulting	Thursday 1 p.m. – 2 p.m. Thursday 2 p.m. - 3 p.m.

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Discipline page	
	https://business.ieu.edu.ua/navchannia/orhanizatsiia-osvitnoho-protsesu/robochi-prohramy/bakalavrat

Form of final control	test	def. test	exam
	☐	☐	☒

SYLLABUS

1 | Brief discipline annotation

The discipline studies the quantitative side of mass social phenomena and processes in inseparable connection with their qualitative side and is aimed at mastering methods and techniques of solving tasks that have a mass character and properties of statistical sustainability. These tasks are widely used in different branches of economy and are the foundation for numerous applied economic and mathematical disciplines. Statistics is intensively used in scientific and economic research and is an important component of fundamental professional training of modern specialists.

2 | Background for studying discipline

Subject matter of the discipline: the quantitative side of social life reflected in the specific dimensions and quantitative correlations of social phenomena and processes.

Presentation of the material is related to the cycle of specialized disciplines: Higher and applied mathematics, Economic analysis of economic activities, Information systems and technologies, Economic theory, etc.

3 | Goal and objectives of the discipline

The goal of the Statistics discipline is to provide students with deep and comprehensive knowledge of statistical methods of collection, processing and analysis of information on social and economic phenomena and processes, which is appropriate to use in current conditions for statistical research, including in management.

Key objectives of the Statistics discipline: to study methodological and methodical issues of statistical research of social and economic processes, principles of organizing statistical observations, methods of calculating indicators, techniques of statistical analysis and presentation of information.

4 | Learning outcomes

PLO 2. To analyze and predict market phenomena and processes based on the application of fundamental principles, theoretical knowledge and applied skills of marketing activities.
PLO 4. To collect and analyze necessary information, calculate economic and marketing indicators, substantiate managerial decisions based on the use of appropriate analytical and methodical tools.

5 | ECTS credits

3 ECTS credits / 90 academic hours

6	Course Content

Content sections and topics	Amount of hours											
	full-time mode of study						part-time mode of study					
	total	including					total	including				
		l	p	lab.	ind.	i. w.		l	p	lab.	ind.	i. w.
1	2	3	4	5	6	7	8	9	10	11	12	13
CONTENT SECTION 1. KEY PRINCIPLES OF THE THEORY OF STATISTICS												
Topic 1. Methodological principles of statistics	6	1	1	-	-	4	5	-	-	-	-	5
Topic 2. Statistical observation	6	1	1	-	-	4	6	-	-	-	-	6
Topic 3. Summary and grouping of statistical data	6	1	1	-	-	4	6	-	-	-	-	6
Topic 4. Generalizing statistical indicators. Absolute statistical indicators	6	1	1	-	-	4	8	2	-	-	-	6
Topic 5. Relative and average statistical characteristics	6	1	1			4	6	-	-	-	-	6
Topic 6. Distribution series and their analysis	6	1	1			4	6	-	-	-	-	6
Topic 7. Statistical methods of correlation measurement	7	2	1			4	6	-	-	-	-	6
Test work No. 1	1	-	1	-	-	-	-	-	-	-	-	-
Total per content section 1	**44**	**8**	**8**	**-**	**-**	**28**	**43**	**2**	**-**	**-**	**-**	**41**
CONTENT SECTION 2. ANALYSIS OF BASIC STATISTICAL VALUES												
Topic 8. Analysis of development trends	7	1	1	-	-	5	7	-	-	-	-	7
Topic 9. Analysis of distribution series	7	1	1	-	-	5	7	-	-	-	-	7
Topic 10. Index method	7	1	1	-	-	5	7	-	-	-	-	7
Topic 11. Selective method	7	1	1	-	-	5	7	-	-	-	-	7
Topic 12. Efficiency statistics	8	2	1			5	11	2	2	-	-	7
Topic 13. Presentation of statistical data: tables, graphs, maps	8	2	1			5	8			-	-	8
Presentation of the individual research task	1	-	1	-	-	-	-	-	-	-	-	-
Test work No. 2	1	-	1	-	-	-	-	-	-	-	-	-
Total per content section 2	**46**	**8**	**8**	**-**	**-**	**30**	**47**	**2**	**2**	**-**	**-**	**43**
Total hours	**90**	**16**	**16**	**-**	**-**	**58**	**90**	**4**	**2**	**-**	**-**	**84**

SYLLABUS

7	List of obligatory tasks

Methodological principles of statistics
Statistical observation
Summary and grouping of statistical data
Generalizing statistical indicators. Absolute statistical indicators
Relative and average statistical characteristics
Distribution series and their analysis
Statistical methods of correlation measurement
Analysis of development trends
Analysis of distribution series
Index method
Selective method
Efficiency statistics
Presentation of statistical data: tables, graphs, maps

8	List of selective tasks

1. History, subject, method and key objectives of statistics.
2. Basic concepts and categories of statistics.
3. Statistical observation as a method of information provision.
4. Key organizational forms, types and methods of statistical observation.
5. Content, objectives, functions of statistical information and grouping.
6. Classifications and types of groupings.
7. Techniques of grouping and principles of group formation.
8. Statistical tables. Types of tables, rules of construction and analysis.
9. Statistical graph. Its elements. Classification of types.
10. Concept, forms of expression and types (classification) of statistical indicators.
11. Absolute and relative values. Essence, types, units of measurement.
12. Mean values. Types of average properties.
13. Statistical series. Their types and principles of construction.

9	Discipline features

Period of teaching	Semester	International disciplinary integration	Year of study	Courses: general training/ professional training/elective
1 semester	3rd semester	available	2nd year	Professional training

10	Assessment system and requirements. General system of discipline assessment

As part of discipline teaching, one carries out current and final control of students' knowledge.
The final grade in the form of an exam is given according to the total rating of students.
QR Code: https://ieu.edu.ua/docs/pol-mark-esb.pdf
According to the results of current control during a semester, students can obtain 100 points maximally, the minimum sum of points allowing students to pass the discipline is 60 points.
Correlation between national and ECTS grades and student rating: QR Code: https://ieu.edu.ua/docs/pol-mark-esb.pdf

11	Admission to final control

The minimum amount of points that should be obtained by students for current educational activities during a semester to be admitted to the final control is 36 points. The grade for the discipline is defined as a sum of the final points for current activities and the points for the final control and is expressed due to the multipoint scale.

The grade for the discipline completing with the exam is determined as the sum of points for current learning activities (at least 36), points for individual independent work of students (no more than 6) and points for the test (at least 24).

The overall points of the discipline are 100. The total grade for the discipline is given according to the national and European scale.

The final control in the form of an exam is carried out after learning all the topics of the discipline, during the examination session.

QR Code: https://ieu.edu.ua/docs/050.pdf

12	Discipline policy

To ensure fruitful learning and cognitive activities of students while studying the discipline, one holds relevant lectures and seminars in the form of presentations, case studies, group work and discussion seminars.

During classes and at the University, students should respect lecturers, staff and other students, attend classes according to the schedule, come on time and not leave classes without lecturer's permission. All academic assignments should be performed by the deadlines.

The teaching staff should constantly advance their professional level, teaching skills, general culture, as well as provide students with appropriate conditions for learning educational programs according to the requirements for the content, level and capacity of education, and encourage their comprehensive professional development. Lecturers should follow the curriculum, not be late for classes, not allow any manifestations of corruption, discrimination, bullying, harassment and infringement of the students' rights.

13	Policy of absence and late task performance

Students who miss the current control for valid reasons confirmed by documents have the right to take current control within two weeks after returning to studying.

Students who have missed classes without valid reasons, have not participated in current control activities, have not liquidated academic failure are not admitted to the final semester control of this discipline. In this case, an academic staff member puts a mark 'non-admission' in the exam record.

Repeated taking of the exam in the discipline is appointed in case of accomplishing all types of educational, independent (individual) work stipulated by the working program of the academic discipline and is carried out according to the approved schedule of academic failure liquidation.

QR Code: https://ieu.edu.ua/docs/050.pdf

14	Academic integrity policy

Participants in the educational process rely on the academic integrity principles QR Code: https://ieu.edu.ua/docs/011.pdf

SYLLABUS

15	Recommended sources of information

Primary (basic) literature:

1. Statistics: textbook / S.I. Pyrozhkov, V.V. Riazantseva, R.M. Motoryn et al. – Kyiv: Kyiv National University of Trade and Economics, 2020. – 328 p.

2. Statistics [Electronic resource]: study guide / O.V. Raievnieva, I.V. Aksionova, O.I. Brovko; edited by O.V. Raievnieva, Doctor of Economics, Professor. – Kharkiv: KhNUE named after S. Kuznets, 2019. – 389 p.

3. Mathematical statistics: study guide / M.S. Herych, O.O. Syniavska – Uzhhorod: Hoverla, 2021. – 146 p.

4. Pedchenko H.P. Statistics: Study guide / H.P. Pedchenko. – Melitopol: Color Print, 2018. – 266 p.

5. Economic statistics: study guide / V.M. Soboliev, T.H. Chala, O.S. Korepanov et al.; edited by V.M. Soboliev. – Kharkiv: V.N. Karazin Kharkiv National University, 2017. – 388 p.

6. Kushchenko O.I. Tourism statistics: study guide / O.I. Kushchenko. – Kh.: V.N. Karazin Kharkiv National University, 2018. – 79 p.

7. Matkovskyi S.O., Hrynkevych O.S., Sorochak O.Z., Halkiv L.I., Prokopovych-Pavliuk I.V. Statistics of enterprises: study guide / Edited by S.O. Matkovskyi. – 3rd edition, stereotyped. – K., Alerta, 2017. – 560 p.

8. Poliova T.V. Lecture notes on the Financial statistics discipline for students in the 072 Finance, Banking and Administration specialty of all modes of study / T.V. Poliova. – Kh.: Kharkiv Institute of Trade and Economics of KNUTE, 2018.

9. Rarok O.V. Statistics. Lecture notes: study guide / Compiled by. Rarok O.V. – Kamianets-Podilskyi: Sysyn I.Y. Individual Entrepreneur, 2017. – 202 p.

Additional literature:

1. Babin S.V. Legal statistics: course of lectures / Compiled by: PhD in Law, associate professor Babanin S.V., PhD in Law, associate professor Teliichuk V.H.; PhD in Law Tkachenko A.V.; Doctor of Law, associate professor Shablystyi V.V.; edited by Doctor of Law, associate professor Shablystyi V.V. – Dnipro: Dnipropetrovsk State University of Internal Affairs, 2017. – 156 p.

2. Horoshanska O.O. Statistics: Workshop. / Kharkiv State University of Food Technology and Trade. – Kharkiv, 2017. – 133 p.

3. Kostiuk V.O. Applied statistics: study guide / V.O. Kostiuk; O.M. Beketov National University of Urban Economy in Kharkiv. – Kharkiv: O.M. Beketov NUUEKh, 2015. – 191 p.

4. Nazarova O.Y., Chupryna O.A. Statistics of finance: Study guide. – Kh.: V. N. Karazin Kharkiv National University, 2015. – 123 p.

Information resources:

1. State Statistics Service of Ukraine // [Electronic resource]. – Available at: http://ukrstat.gov.ua.

2. Ministry of Economy of Ukraine // [Electronic resource]. – Available at: http://www.me.gov.ua

3. Ministry of Finance of Ukraine // [Electronic resource]. – Available at: https://www.mof.gov.ua/uk

4. Engineering Statistics // URL: https://www.itl.nist.gov/div898/handbook/index.htm

5. Handbook of Statistics 2020 // URL: https://unctad.org/webflyer/handbook-statistics-2020

16	Tips on successful study during the course

If you want to succeed in this discipline, you should be:

- persistent, attentive and curious;

- creative, cheerful, and open to communication and discussions;

- ready to acquire information and knowledge about the subject not only during lectures but also during extracurricular activities.

See you at classes!