Додаток 2
до наказу від _____ 2021 р. № _____

NATIONAL UNIVERSITY
OF LIFE AND ENVIRONMENTAL SCIENCES OF UKRAINE

Department of Statistics and Economic Analysis

“APPROVED”
Dean of Economic Faculty,
_____ A.D. Dibrova
"_____" _____ 2021 y.

CONSIDERED AND APPROVED
at the meeting of the Department
of Statistics and Economic Analysis
Protocol № 15 from 20. 05. 2021 y.
Head of the Department
_____Lazaryshyna I.D.

«CONSIDERED»

Guarantor _____Kuzyk N.P.

Guarantor EP

WORKING PROGRAM

OF EDUCATIONAL DISCIPLINE

"Statistics"

Specialty 071 "Accounting and Taxation"
Educational program "Accounting and Audit"
Economic Faculty
Developer **Olena Bohdaniuk,** Associate Professor of the Department of Statistics and Economic Analysis, PhD in Economics , Associate Professor

Kyiv - 2021

1. Description of the discipline
STATISTICS

Field of knowledge, specialty, educational program, educational degree		
Educational degree	Bachelor	
Specialty	071 "Accounting and Taxation"	
Educational program	Accounting and Audit	
Characterization of discipline		
Type	Mandatory	
Total number of hours	210	
Number of ECTS credits	7	
The number of structural modules	5	
Course project (work) (if your curriculum)	Project (name)	
Form of control	Test, Exam	
Indicators of discipline for full-time and distance learning		
	full-time education	distance education
Year of training	1-2	
Semester	2-3	
Lectures	90 hours	
Practical, seminars	90 hours	
Laboratory studies	- hours	
Independent work	30 hours	
Individual tasks	1 hour	
The number of weekly hours for full-time study: classroom	6 hours	

2. Purposes of the Course

The main purpose of the study course “Statistics” is the formation in students theoretical knowledge’s and practical skills in statistical analysis of mass socio-economic phenomena’s and processes as a basis for developing and supporting management decisions that provide knowledge about method of collecting, processing and analysis, identification and assessment patterns development and interaction inherently complex socio-economic phenomena’s and processes.

To achieve the main goal should be to solve the following tasks:

- study the major categories, concepts, systems, tools and algorithms for statistics;
- acquirement practical skills solving specific statistical tasks;
- acquaintance with the scientific principles of fundamental laws of statistical techniques and methodologies;
- develop abilities of creative search the ways to improve production and business enterprises, socio-economic development with the use of key indicators, techniques and methods of statistics.

The result of studying the discipline is the acquisition by students of such competencies

1. General competence:

3K 1 - ability to learn and master modern knowledge;

3K 2 - ability to analyze and synthesize as a tool for identifying problems and making decisions to solve them based on logical arguments and verified facts.3K04 - ability to work autonomously;

3K 4 – appreciation and respect for diversity and multiculturalism;

3K 7 - ability to think flexibly and competently apply the acquired knowledge in professional activities;

3K8 - ability to communicate in state and foreign languages both orally and in writing;

3K 9 – skills in using modern information and communication technologies;

3K 11 – ability to present the results of research;

ЗК13 - ability to conduct research on the appropriate levels;

ЗК 15 – ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, lead a healthy lifestyle.

2. Special (professional) competence:

ФК 1. Ability to study development trends economy through the tools of macro- and microeconomic analysis, make generalizations about assessment of the manifestation of individual phenomena that are inherent in modern processes in economics.

ФК 2. Use math tools for research of socio-economic processes, solutions applied tasks in the field of accounting, analysis, control, audit, taxation.

ФК 3. Conduct an analysis of economic activity enterprises and financial analysis for adoption management decisions.

3. Program material of the course "Statistics"

Theoretical and practical course subject "Statistics" is taught using a large number of examples, calculations, tables, graphs, solving common tasks and multimedia equipment, computer programs.

Theme 1. Methodological Principles of Statistics

General knowledge about statistics. A brief history of the development of statistics. The object of study of statistics.

Basic concepts of statistical science. Statistical population. Statistical totality in public life and their characteristics. Statistical pattern. Statistical indicators. The content, size and shape of the statistical indicators. The system of statistical

indicators.

The theoretical basis of statistics. Statistics and other sciences. Statistics and Mathematics. Statistics and Accounting.

Method of Statistics. Philosophy is the methodological basis of statistics. Features of the statistical method.

Statistics as multidisciplinary science. Stages of statistical analysis, their unity and relationship.

Organization of Statistical Service. The task of Statistics of Ukraine. Law of Ukraine “On State Statistics”.

Theme 2. Statistical observation

The concept of statistical observation. Plan of the statistical observation. The task of observation. The object and the unit of observation. Observation program. Statistical tools of observation. Organization of the statistical observation. Place, time, and time of observation. The preparatory to work. Unified State Register of Enterprises and Organizations of Ukraine.

Organizational forms of survey: reports, specifically organized surveys and registries.

Types of statistical observations on the degree of coverage of units and time data registration. Types of the no continuous observation.

Methods of statistical observation.

Errors of statistical observation and methods for their detection. Receipt and control of materials the statistical observation.

Theme 3. Summary and bunching of statistical data. Statistical tables

The task of summary, its content. The organization of reports. Types of summary. Simple and complex construction. Centralized and decentralized summary.

Statistical grouping – scientific basis for processing mass data. The sence og the grouping method. Objectives and types of groupings. Types of grouping signs. Sequence of grouping. Devision on groups and intervals.

Secondary grouping.

Statistical tables. The constituent elements of the table. Types of tables. The guidelines for preparing tables.

Theme 4. Generalized of statistical data

Types of statistical general indexes. Conditions of the scientific use of absolute and relative indexes.

Absolute indicators and their types. Measurement units of absolute idexes.

Types of relative indexes, their forms and measurement units.

The concept of average. Conditions of averages use and implementation. Types of averages. Methods for calculating the different types of averages. Majorant rule.

Arithmetic average, methods of its calculation. The simple and weighted arithmetic average. Justification weight for the weighted arithmetic mean. Mathematical properties of the arithmetic mean. Calculation the arithmetic mean by the method of moments.

A combination of averages to the method of statistical groupings in economic analysis. General and group averages.

Theme 5. Analysis rows distribution

The concept of the statistical distribution rows. Types of rows distribution and their components. Graphic representation of the distribution rows.

Structural characteristics of the average as a distribution center.

Mode. Methods for computing mode in discrete and interval rows distribution. Multimode's distributions.

Median. Methods for calculating the median in a discrete and interval raws distribution. Bimodal raw distribution.

The ratio between the arithmetic mean, the mode, the median in raw distributions.

Quartiles, deciles, percentiles.

Variation indicators. The scale of variation. The average linear deviation. Mean square deviation (variance). Standard deviation. Coefficient of variation. Methods for

calculation indexes of variation for grouped and non grouped data.

Mathematical properties of the dispersion. Calculation the variance by the method of moments.

Rule of adding the dispersion and its application.

Specifications of form distribution, methods of its calculation. The concept of normal distribution.

Theme 6. Concentration analysis, differentiation and similarity distribution

Concentration. Methods of assessing the degree of concentration. Concentration factor.

Localization factor and its characteristics.

Coefficient of similarity structures, methods of its calculation.

Indicator of the intensity of structural changes. Linear coefficient of structural changes. Quadratic rate of structural changes.

Theme 7. Sampling method

General and sample. The task of sampling observation. The concept of statistical evaluation. Basic requirements for statistical aggregates.

Organization of the sample observations. The combination of continuous and selective monitoring. The use of sampling method in social-economic statistics.

Methods of selecting, that ensuring representativeness of the sample. Random selection. Mechanical selection. A typical selection. Serial selection. The combination of different methods of selection.

Sampling error. The average sampling error. Limiting sampling error. Point and interval estimates of parameters of the population. Methods of statistical evaluation of the arithmetic mean and proportion. Determination of sampling error for the different methods of selection.

Determining the required number of samples.

Theme 8. Statistical methods for measuring relationships

Types of relationships between phenomenas. And functional and correlation relationships.

Analytical method of grouping.

Analysis of variance.

The concept of correlation and regression analysis. The main objectives of the correlation analysis. Prerequisites of the correlation analysis. Types of correlation dependencies in form and direction of connection.

Analysis of simple linear correlation. Building a regression equation. Method of calculating the parameters of the regression equation. The economic meaning of the regression coefficients. Indexes of tightness of connections. Index correlation. The linear correlation coefficient. Coefficient of determination.

Analysis of a simple non-linear correlation. Method of calculating the parameters of the regression equation. Index of correlation. Coefficient of determination.

An analysis of multiple correlation. Method of calculating the parameters of the regression equation. The economic content of the partial regression coefficients. Paired, partial and multiple correlation coefficient. Partial and multiple coefficients of determination.

Non-parametric correlation analysis.

Correlation analysis of quality traits.

Theme 9. Analysis of the intensity dynamics

Statistical time series and their components. Moment and interval, parallel and interrelated time series. Terms of constructing time series.

Indicators of time series. Intermediate level and methods of its calculation. Absolute growth. Growth. Growth rate. The value of one percent increase. Methods for calculating the dynamics. Basic method. Chain method. The relationship between the dynamics .

Average levels of row series.

Methodology for calculation indexes of the intensity of the phenomena that are

characterized by two dynamic series. Coefficient of advance. Absolute acceleration (deceleration) growth. Factor of acceleration (deceleration) relative to speed of dynamics.

Transformation of time series. Closing time series. Bringing together time series to one basis.

Theme 10. Analysis of trends and fluctuations

Methods for detecting trends. Method of aggregated intervals. Moving average method. Analytic equating of time series by the method of least squares. Interpolation. Extrapolation.

Analysis of seasonal fluctuations. Indices of seasonality. Seasonal wave. The average coefficient of seasonality.

Theme 11. Index Analysis

The concept of the indexes. Index values in economic analysis. Types of indexes. Individual and general indexes. Key elements of the generalized indexes. Indexed value. Balance and proportionality factors. General aggregate indexes. Principles of total aggregate indices. The main tasks to be solved by using indexes.

The system indexes for characterize the dynamics of complex phenomena. Basic and chain indices.

Arithmetic and harmonic indices. The principles of their construction.

Indices of average. Indices of variable composition, of permanent, structural changes.

Index analysis method. Assessing the impact of individual factors on changing complex phenomenas based on interrelated indices.

The regional indices.

Theme 12. Statistical Graphics

The role and importance of statistical graphs. Key elements of statistical

graphics. Field of the graphic. Geometric signs. Spatial orientations. Large-scale benchmarks. Explication of graph.

Types of statistical graphs. Diagrams. Cartogram. Cartodiagram.

Chart types and methods of their construction. Methods of graphic representation of the dynamics of the phenomena, the structure of the relationship.

Theme 13. Crop Statistics

Task of the crop statistics. Indicators of the presence and composition of the land fund by categories of land users and land types. Indicators, condition, quality and use land resources.

Modern statistical organization of land use and land in Ukraine.

Task of statistics of crop area. The main features of the classification of crop areas of agricultural cropping and their groups. Indicator of the size and composition of the crop area. Accounts category of sowing area and their economic importance.

Subject and task of statistics of collection and gross yield. Indicators of output and yield. The average yield by groups of homogeneous cultures. Statistical evaluation of yield losses. Index Analysis of gross yield and crops yield.

Task of statistical agricultural technology. Classification of farming practices. System performances of statistical farming.

The main task of Statistics perennial plants. Classification of perennial plants. The system of statistical indicators of perennial plants.

The current organization of crop statistics.

Theme 14. Livestock Statistics

Task of the livestock statistics. Indicators of the size and composition of livestock. Indexes of movement and reproduction of cattle.

Indicators of animal products and methods of their calculation.

Indexes of cattle productive and methods of their calculation.

Key performance of statistics zootechnical measures.

Main types and methods of economic – statistical analysis and development of animal husbandry.

Theme 15. Statistics of inputs and production efficiency

Task of statistics of inputs and agricultural production efficiency. Classification of fixed assets in agriculture.

Indicators of the presence, composition , movement and use of assets. Methods for evaluation of fixed assets.

Indexes of statistics of energy resources.

Indicators of availability and use of machines working in agriculture.

Main indicators of labor force statistics. Indexes of labor use and working hours. Indexes labor productivity and payment in agriculture, method of their calculation and analysis.

Indicators of production costs and production price. Indicators of income and profitability of production. Analysis of data on cost products, revenue and profitability of production.

Structure of educational Discipline

Names of Modules and Themes	Quantity of Hours												
	Full-time							Distance					
	W	Total	including					Total	including				
			L	Sem.	Pr.	Lab	Ind.w.		L	Sem.	Pr.	Lab	Ind.w.
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Module 1. Descriptive Statistics													
Theme 1. Methodological bases of statistics	1	3	2		-								
Theme 2. Statistical observation	2	18	3		3		6						
Theme 3. Summary and grouping of statistical data. Statistical tables	3-4	6	4	-	2								
Theme 4. Analysis of distribution series	5-6	7		-	3								
Theme 5. Summarizing statistical indicators	7	8	4		4								
Total for module 1		42	18		18		6						
Module 2. Inferential Statistics													
Theme 6. Variation rates	8	8	4	-	4								
Theme 7. Selective method	9-10	8	4	-	4								
Theme 8. Statistical hypotheses	11-12	11	6	-	2								
Theme 9. Statistical methods for measuring interconnections	13-15	25	6	-	6		6						
Total for module 2		52	23		23		6						
Module 3. Statistical methods of studying the dynamics of the development of socioeconomic phenomena													
Theme 10. Time Series	1	12	4	-	2								
Theme 11. Analysis of development trends and fluctuations	2-3	12	4	-	4								
Theme 12. Index Analysis	4	14	4	-	4								
Theme 13. Statistical Graphics	5	14	2	-	2		6						

Total for module 3		52	23	-	23		6						
Module 4. Basic of Statistics of Agriculture and Environment													
Theme 14. Agriculture statistics	6-8	12	4	-	4								
Theme 15. Crop statistics	9-10	15	6	-	4		3						
Theme 16. Livestock Statistic**s**	11-12	15	6	-	4		3						
Total for module 4		42	18	-	18		6						
Module 5. Basic of Economic Statistics													
Theme 17. Production statistics and production efficiency	13-14	11	4	-	4		3						
Lecter 18. Basics of socioeconomic statistics	15	11	4	-	4		3						
Total for module 5		22	8	-	8		6						
Total sum		**210**	**90**		**90**		**30**						
Course Project													
Educational Training													

4. Themes of seminars
5. Topics of practical classes

№	Name of Themes	Quantity of hours
1	Object of Statistics, its main category. Statistical methodology.	6
2	Statistical observation as method of information providing. Program-methodology questions of statistical observation. Organize questions of statistical observation. Forms, kinds and methods of observation.	6
3	Essence of statistical bunching, classification and grouping. Principles of forming groups. Statistical tables.	6
4	Essence and kind of statistical indexes Absolute statistical value. Relative values. Average indexes. System of statistical indexes.	6
5	Distribution regularity. Variation characteristic. Characteristic of distribution forms.	6
6	Characteristic of distribution center. Kinds and interconnection of dispersion.	6
7	Of sampling method. Sampling values of average and share. Sampling kinds. Statistical verification of hypothesis.	6
8	Kinds of interconnections. Regression analysis. Value of tightness and verification of the essence of correlation connection. Rang correlation. Conformity value of attributive rows variation.	6
9	Essence and compound elements of dynamic row. Characteristics of dynamic intensity. Average absolute and relative speed development	6
10	Characteristics of main tendency of development. Value of fluctuation and dynamic constancy. Correlation of dynamic row.	6
11	Essence and functions of indexes. Methodological bases of bunching indexes structure. Aggregate form of indexes and average weighted indexes. Interconnection of indexes. Average indexes.	6
12	Role and meaning of graphical method. Main elements of graphics. Rules of structure of statistical graphs. Kinds of statistical graphs.	6
13	Object, tasks and system of statistics for crop production indexes. Statistics of area under crop. Statistics of gross yield of agrarian cultures. Statistics of perennial crops. Statistics of agro-technic. Modern organize of statistical crop production observation in Ukraine.	6
14	Object, tasks and system of statistics for animal husbandry. Statistics of quantity and structure of agrarian animals. Indexes of movement and reproduction of animals. Natural indexes of livestock production. Statistics of zootechnic measures. Modern organize of statistical observation of livestock in Ukraine. Main directions and methods of economic-statistical analysis about pattern and development of animal husbandry.	6
15	Statistics of fixed assets. Statistics of production and energetic equipment. Statistics of productivity and remuneration. Statistics of agricultural production efficiency.	6
Total		90

6. Topics of lab classes

№	Name of Themes	Quantity of hours

1		-

7. Control questions, sets of tests to determine the level of knowledge acquisition by students

1. Types of relationships between phenomena. Functional and correlation.
2. The concept of correlation-regression analysis. The main tasks of correlation analysis. Prerequisites for correlation analysis. Types of correlations by form and direction of communication.
3. Analysis of simple linear correlation. Construction of the regression equation. Method of calculating the parameters of the regression equation. Economic content of regression coefficients.
4. Indicators of assessment of closeness of communication. Correlation index. Linear correlation coefficient. Coefficient of determination.
5. Analysis of simple nonlinear correlation. Method of calculating the parameters of the regression equation. Correlation index. Coefficient of determination.
6. Analysis of multiple correlation. Method of calculating the parameters of the regression equation. Economic content of partial regression coefficients. Paired, partial and multiple correlation coefficients. Partial and multiple coefficients of determination.
7. Nonparametric correlation analysis.
8. Statistical time series, their constituent elements. Instantaneous and interval time series. Rules for constructing time series.
9. Indicators of time series. The average level and methods of its calculation. Absolute growth. Growth rate. The value of one percent increase. Methods of calculating the dynamics. The basic way. Chain method. Relationships between performance indicators.
10. Average levels of a number of dynamics.
11. Methods of identifying development trends. The method of enlarged intervals. Moving average method. Analytical alignment of time series by the method of least squares. Interpolation. Extrapolation.
12. The concept of indices. The value of indices in economic analysis. Types of indices. Individual and general indices. The main elements of general indices. Indexed values. Weights and coefficients of proportionality. General aggregate indices. Principles of construction of general aggregate indices. The main tasks solved with the help of indexes.
13. Index system for characterizing the dynamics of a complex phenomenon. Basic and chain indices.
14. The role and significance of statistical graphs. The main elements of the statistical graph. Graph field. Geometric signs. Spatial landmarks. Large-scale landmarks. Explication of the schedule.
15. Types of statistical graphs. Charts. Cartograms. Card diagrams.
Types of diagrams and methods of their construction.

16. Tasks of crop statistics.
17. Tasks of statistics of sown areas. The main features of the classification of sown areas of crops and their groups. Indicators of the size and composition of sown areas. Accounting categories of sown areas and their economic significance.
18. The subject and objectives of gross harvest and yield statistics. Yield and yield indicators. Average yield by groups of homogeneous crops. Statistical estimation of crop losses. Index analysis of gross harvest and crop yields.
19. Tasks of agricultural technology statistics. Classification of agro technical measures. System of indicators of agricultural engineering statistics.
20. The main tasks of statistics of perennial plantations. Classification of perennial plantations. System of statistical indicators of perennial plantations.
21. Tasks of livestock statistics. Indicators of the number and composition of livestock. Indicators of movement and reproduction of livestock.
22. Indicators of livestock products and methods of their calculation.
23. Indicators of livestock productivity and methods of their calculation.
24. The main indicators of statistics of zoo technical measures.
25. Types of accounting for products in agriculture and their importance.
26. Types of valuation of agricultural products.
27. Statistical analysis of the efficiency of agricultural production.

NATIONAL UNIVERSITY OF LIFE AND ENVIRONMENT SCIENCES OF UKRAINE

"Bachelor" **specialty** "Accounting and Taxation"	Statistics and economic analysis department	**EXAMINING Ticket number** the discipline "Statistics"	**Approved** Chief of Department of Statistics and Economic Analysis _____ (signature) prof. I.D.Lazarushuna "_____" _____

Examination task

I. Problem

The level of profitability of Light Industry is characterized by data (Table).

Define: *average profitability by points*

Return%	Up to 6	6 - 11	11 - 16	16 - 21	21 - 26	26 -31	31 or more
number of companies	7	11	16	21	27	13	5

Second. Theoretical questions

Defining statistical series distribution of graphic.

III. Tests

Question 1. The total physical production of canned food in the Ukraine may be expressed in units ...

1. costly
2. natural
3. conditional-natural
4. temporary

Question 2. Frequency - it ...

1) the number of mass phenomena in comparable collections;

2) the number (quantity) unit discrete number of signs identical size or number of units interval interval series;

3) the number of uniform statistical population;

4) quantitative value to rank number distribution.

Question 3. What will be the coefficient of variation, knowing that when examining 20 companies dispersion rape yield is 17.3, average - 24.5

1. 70.61%
2. 38.84%
3. % 16.98
4. 15.30%
5. 0.44

Question 4. Which feature shared by statistical observations on current, periodic and disposable?

1. As the requirements for organizational forms of surveillance
2. By the time of observation
3. With a time of receipt of data from statistical reports of enterprises
4. From a statistical accounts

Question 5. Which formula is calculated variance method of moments?

1.	2.
3.	4.
5.	

Question 6. Why a median interval equal number of distribution:

The yield of buckwheat, kg / ha	number of companies

12-16	4
16-20,	5
20-24	6

Question 7. Name the properties of linear correlation coefficient:

$r > 0$; $r < 0$; $r \to 0$; $r \to 1$; $r = 0$; $r = 1$

Question 8. In determining the required sample size should be given the following conditions:	
1.	marginal error rate variations in level trust probability
2.	variance, averaged level trust probability
3.	the size of the average error, coefficient of variation, the amount of the population
4.	the amount of the population, the relative intensity value, average

Question 9. Install accordance ways to identify trends time series:	
1. The absolute level of a number of speakers for short intervals undergo random fluctuations, replacing summar y value for a longer period	A) consolidation periods B) analytical alignment B) moving average
2. The average aggregated periods established each successive entry-level exception interval and replacing it with another number next level	
3. The calculation parameters of a mathematical equation which describes trends in a number of	

Question 10. How is the index obtained by the equation: ?

8. Methods of education

Practical	Visual	Verbal	Working with book	Video- method
Experiments, exercises, training and	Illustrations, demonstration, observation of	Explanation, explanation, narration,	Reading	Viewing, Training, Exercises under

productive work	students	conversation, instruction, lecture, discussion, debate		the supervision of "electronic teacher" control

9. Control forms

Control measures include current and final evaluation of student knowledge. Current control is carried out during practice and in the process of self-study in the following areas: rapid surveys, tests, tasks "right-wrong" problem.

10. Distribution of points that students receive

Theme	Number of points
I Semester	
Module 1. Descriptive Statistics	
Independent work 1. Statistical observation	10
Practical work 1. Analysis of series distribution	10
Practical work 2. Rows of distribution and their graphic representation	15
Practical work 3. Average values	15
Module Test 1	50
Total for module 1	100
Module 2. Inferential Statistics	
Practical work 4. Variation rates	10
Practical work 5. Dispersions	10
Practical work 6. Selective method	10
Practical work 7. Correlation-regression analysis	20
Independent work 2. Correlation-regression analysis	20
Module Test 2	30
Total for module 2	100
Educational work I Semester - 70 %	max 70
Credit Test	30
Total I Semester	100
II Semester	
Module 3. Statistical methods of studying the dynamics of the development of socioeconomic phenomena	
Practical work 8. Time Series	15
Practical work 9. Indexes	15
Practical work 10. Statistical graphics	10
Independent work 3. Statistical graphics	20
Test Module 3	40
Total for module 3	100
Module 4. Basic of Statistics of Agriculture and Environment	
Practical work 11. Crop statistics	10

Practical work 12. Statistics of acreage and crop yields	10
Practical work 13. Livestock Statistics	10
Independent work 4. Statistics of crop and livestock production	30
Test Module 4	40
Total for module 4	100
Module 5. Basic of Economic Statistics	
Practical work 14.Production statistics and production efficiency	10
Practical work 15. Basics of socioeconomic statistics	10
Independent work 5. Basics of socioeconomic statistics	30
Task Module 5	50
Total for Module 5	100
Educational work II Semester - 70 %	max 70
Test Exam	30
Total II Semester	100

Remark1. According to the "Regulations on exams and credits in NULES of Ukraine" , ranking students for Academic $\mathbf{R_{HP}}$ study concerning certain discipline is given by the formula

$$R_{HP} = \frac{0{,}7 \cdot (R^{(1)}_{ЗМ} \cdot К^{(1)}_{ЗМ} + \ldots + R^{(n)}_{ЗМ} \cdot К^{(n)}_{ЗМ})}{К_{ДИС}}$$

where $R^{(1)}_{ЗМ}, \ldots R^{(n)}_{ЗМ}$ − ratings of content modules on a 100-point scale;

n - number of structural modules;

$К^{(1)}_{ЗМ}, \ldots К^{(n)}_{ЗМ}$ − number of ECTS credits provided work curriculum for the corresponding semantic module;

$К_{ДИС} = К^{(1)}_{ЗМ} + \ldots + К^{(n)}_{ЗМ}$ − number of ECTS credits provided work curriculum for courses in the current semester;

The formula can be simplified if we take $К^{(1)}_{ЗМ} = \ldots = К^{(n)}_{ЗМ}$. Then it will look like

$$R_{HP} = \frac{0{,}7 \cdot (R^{(1)}_{ЗМ} + \ldots + R^{(n)}_{ЗМ})}{n}$$

Grading scale

Evaluation on the scale	Total points for all activities

excellent	90 – 100
good	74 – 89
satisfactorily	60-73
unsatisfactorily	0-59

11. Methodological support

1. Regulations.
2. Complex teaching of the discipline.
3. Methodological guidelines for independent study courses.
4. Methodological guidelines for writing a term paper.
5. https://elearn.nubip.edu.ua/course/view.php?id=2165

14. Recommended literature

Main

Legislation and regulations

1. Закон України "Про державну статистику" Закон введено в дію з дня прийняття (згідно з Постановою Верховної Ради України від 17 вересня 1992 року N 2615-XII) Із змінами і доповненнями, внесеними Законами України від 13 липня 2000 року N 1922-III (Законом України від 13 липня 2000 року N 1922-III цей Закон викладено в новій редакції), від 15 грудня 2005 року N 3205-IV, від 5 березня 2009 року N 1070-VI, від 1 червня 2010 року N 2289-VI (зміни, внесені Законом України від 1 червня 2010 року N 2289-VI, вводяться в дію з 31 липня 2010 року), від 2 грудня 2010 року N 2756-VI, від 13 січня 2011 року N 2938-VI
2. Наказ Державної служби статистики "Про затвердження форм державних статистичних спостережень у галузі сільського та рибного господарства" від 17.07.2012 р. №301
3. Наказ Державної служби статистики "Про затвердження Положення про Реєстр статистичних одиниць у сільському господарстві, мисливстві, лісовому і рибному господарстві – Реєстр АГРО" 02.07.2011 №278
4. Наказ Державного комітету статистики "Про затвердження Методики визначення постійних цін для розрахунку індексу обсягу сільськогосподарського виробництва" 20.12.2011 №363
5. Наказ Державного комітету статистики "Про затвердження Постійних цін 2010 року на сільськогосподарську продукцію для розрахунку індексу обсягу сільськогосподарського виробництва" 20.12.2011 №362
6. Наказ Державного комітету статистики України "Про затвердження Методологічних положень з організації державних статистичних спостережень зі статистики сільськогосподарських підприємств" 09.11.2011.№289
7. Наказ Державного комітету статистики України "Про затвердження Методики розрахунку індексів цін у сільському господарстві та індексів фізичного обсягу реалізованої сільськогосподарської продукції" 24.10.2011 №268
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