

MINISTRY OF HIGHER AND SECONDARY SPECIAL EDUCATION OF  
THE REPUBLIC OF UZBEKISTAN

KARSHI ENGINEERING-ECONOMICS INSTITUTE

THE FACULTY OF ECONOMICS

THE CHAIR OF "ACCOUNTING AND AUDIT"

REGISTERED:

№ 306

"29" 08 2022 year

"APPROVED BY"

Vice rector for academic affairs

Bozorov O.N.

"29" 08 2022 year

Syllabus by discipline:

# STATISTICS

Field of knowledge: 400000 - Business, management and law

Field of study: 410000 - Business and management

Direction of study: 60410500 - Banking and audit

This subject syllabus was compiled on the basis of the curriculum approved by the Karshi engineering-economics institute in 28.06.2022.

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The syllabus of the science was discussed at a meeting of the chair of "Accounting and auditing" No. 1 dated "24" 08 2022, approved at a meeting of the Methodological Commission of the faculty of Economics No. 1 dated "24" 08 2022.

Recommended for use in the educational process by the decision of the Methodical Council of the institute No. 1 dated 2022 29.08

Head of educational-methodological department:

Chairman of the Methodological Commission of the faculty:

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### “Statistics” science syllabus

<b>Science (module) code</b> <b>STAT1108</b>	<b>Academic year</b> <b>2022-2023</b>	<b>Semester</b> <b>III/IV</b>	<b>ECTS credits</b> <b>8 4/4</b>
<b>Science (module) type</b> Mandatory	<b>Language of education</b> Uzbek		<b>Weekly class hours</b> <b>4/4</b>
<b>The name of the science</b>	<b>Classroom lessons (hour)</b>	<b>Independent study (hour)</b>	<b>Total load (hour)</b>
Statistics	III semester 60	60	120
	IV semester 60	60	120

### Information about teacher

<b>Name of the chair</b>	<b>Accounting and audit</b>		
<b>Teacher</b>	<b>Full name</b>	<b>Phone number</b>	<b>e-mail</b>
<b>Lector</b>	Turobov Sherzod Alisherovich	+998914537757	sh.turobov@gmail.com
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<b>Laboratory work</b>	-		

### “Statistics” science syllabus

<b>Science (module) code</b> <b>(YEST)STA2209</b>	<b>Academic year</b> <b>2021-2022</b>	<b>Semester</b> <b>III/IV</b>	<b>ECTS credits</b> <b>9 6/3</b>
<b>Science (module) type</b> Mandatory	<b>Language of education</b> Uzbek		<b>Weekly class hours</b> <b>4/4</b>
<b>The name of the science</b>	<b>Classroom lessons (hour)</b>	<b>Independent study (hour)</b>	<b>Total load (hour)</b>
Statistics	III semester 60	120	180
	IV semester 60	30	90

### Information about teacher

<b>Name of the chair</b>	<b>Accounting and audit</b>		
<b>Teacher</b>	<b>Full name</b>	<b>Phone number</b>	<b>e-mail</b>
<b>Lector</b>	Turobov Sherzod Alisherovich	+998914537757	sh.turobov@gmail.com
<b>Practical lesson</b>	Turobov Sherzod Alisherovich	+998914537757	sh.turobov@gmail.com
<b>Laboratory work</b>	-		

## **I. Importance and stead of the subject in higher professional education**

In this subject object , methods , purpose and functions of “Statistics” were revised and also there were in detail abbreviated – with the help of statistical methodology learning tasks of valuable concepts , cathegories , definitions of market economy , cause-effect relationship between market events and processes , their evolution laws in harmony with occurring and deciding of market relitions in our country .

“Statistics” belongs to main specialty science complex and it is taught in the III – IV semesters .

In order to carry out the program , having enough knowledge and skills in company with planned general methodology subjects (teaching methodology of special subjects , information systems) are demanded .

## **II.Purpose and functions of the subject**

The purpose of teaching the subject is forming professional knowledge about methods and practise of statistics and needed study skills .

The functions of the subject include getting deep knowledge and imagination about object ,methods and importance of statistics ; broadly learning theoretical , methodical and practical issues of statistics ; knowing about establishing of Uzbekistan State Statistics , its functions and rights according to the law of “ About The State Statistics “ ; studying essence , types and methodical – organizational issues of statistical observation ; summarizing and grouping information and expressing in tables the results of statistical observation ; getting skills of forming and analyzing distribution lines ; having deep imaginations about statistical indicators , their types and forms,ways of comparing them , having imagination about micro and macro economical indicators; knowing essence , practical and theorical issues of selectical observation , marking ways of representativeness , getting skills of statistical checking and solutions of scientic and experimental hypothesis; applying correlation-regression analysis for expaning cause-effect relationship among market events ; knowing skills of forming and analyzing dynamic rows ; providing imagination about accounting of economic indicators which are used in practical statsitics and skills of making overview according to them .

There are demands for students on knowledge , experience and qualification about this subject. A student:

- must have imagery about specific features of object and methods of statistics ; mass incident , its important characters; statistical method ; statistic research and its stages ; current Uzbekistan State statistics and international statistics ; essence and importance of statistical observation ; principes of organizing statistical observations ;

- must know and be able to use practically accounting of variation indicators ; asymmetry coefficient and determinating it ; distrubiton excess , quantitative marking its degree and essence ; selective observation , its meaning causes and advantages of applying ; styles for providing representativeness of selection ; styles of correlation-regression analysis ;

- must have skills of accounting economical indicators in statistics practice; utilizing deflators and aggregate indices of GDP ; forming index of consumption rate ;

using main economic statistic style – national accounting system (NAS) ; identifying essence , importance and functions of NAS , analyzing main categories and conceptions of NAS ; accounting and applying practically main calculations of NAS .

### III. Educational technologies and methods

- lectures;
- interactive cases
- seminars (logical thinking, quick questions and answers);
- work in groups;
- producing a presentation;
- individual projects;
- projects for collaboration and advocacy.

### IV. Basic theoretical part (lectures)

№	Topics	Summary of contents	Hour
<b>1- module. General theory of statistics</b>			
<b>1</b>	<b>Introduction to the science of statistics</b>	Understanding statistics. The subject of statistics and its features. Scientific and practical discussions on statistics. Basic elements, categories and concepts of statistical science: statistical set, set of units, variation, variable, attribute, ordered and quantitative sign, statistical indicator, statistical regularity. Data types. Methods and methodology of statistics. Stratification of Statistical Science and Activities. The challenges of statistics in the context of economic development and liberalization. Organization of statistics and obtaining statistical information.	<b>2</b>
<b>2</b>	<b>Theory and practice of collecting statistical data</b>	Statistical observation is the first stage of statistical research. The concept, essence and meaning of statistical observation. Basic principles of statistical observation. Program-methodical and organizational issues of the statistical plan of observation: object and unit of observation, observation program, form and instructions for observation, organ, place of observation, time and duration of observation. Forms, types, methods of statistical observation and their features. Statistical reports, registers and specially organized statistical checks. Mass and partial surveillance, continuous (ongoing) and intermittent surveillance, regular and one-way surveillance. Direct and documentary observation, inspection. The tasks of organizing statistical observation in the Republic of Uzbekistan and its components. Statistical observation error and its types. Methods for obtaining and checking statistical data	<b>2</b>
<b>3</b>	<b>Statistical summary and grouping</b>	Statistical summary is the second stage of statistical research. The essence and purpose of summary and grouping in statistics. The method of statistical grouping, its importance in the study of socio-economic events and processes. Types of groupings: simple and complex (multidimensional) groupings, typological, structural and analytical groupings. Principles (rules) of group formation. Grouping icon. Number and distance between groups. The tasks are solved by the grouping method. The essence, components and types of distribution of the series. Attributive variational, discrete, and spaced lines. The problem of creating variation series.	<b>2</b>

4	<b>Displaying statistical data in tables and graphs</b>	The essence and significance of statistical tables. Rules of formation. Types of statistical tables. Simple, group and combination tables. Methods for reading and analyzing statistical tables. Concept, types, meaning and rules for constructing statistical graphs. Understand statistical charts. Graph components: scale, scale and coordinate system. Graphical presentation of quality data. Bar chart, pie chart, Pareto chart. Graphical presentation of quantitative data. Scatter plot, busy and leaf graph, bar graph. Graphical representation interconnection. Types of graphs describing the variation series: polygon, histogram, cumulative, ogive. Distortion of truth in descriptive statistics.	2
5	<b>Vizual statistical indicators</b>	The essence and significance of statistical indicators. Attributes of statistical indicators: qualitative, quantitative, strictly limited in space and time. Classifications and types of statistical indicators. Absolute, relative and average values. Volume and quality indicators. Indicators of moments and intervals. Forms of expression of statistical indicators. Types of relative values: assignment of a plan (contract), implementation of a plan, dynamics; the relative amounts of structure, coordination, comparison, and intensity. The relationship between the types of relative indicators. The need to combine absolute and relative indicators in the statistical study of socio-economic events.	2
6	<b>Average values</b>	Average values and their classification. Analytical means types: arithmetic, harmonic, geometric, quadratic, cubic means. Problems of using average values in socio-economic processes. Arithmetic mean properties. Calculate the arithmetic mean by the "conditional moment" method. Types of structural means and their use in statistical research. The essence of the median and the order of its calculation in the distribution series. Calculation of modes and median interval in the variation series. Quantitative measurements of relative position: quartile; quintile; decyl; percentile	2
7	<b>Methods for estimating variation in statistics and the basics of analysis of dispersion</b>	A variant of the meaning of the character in the set. Qualitative accuracy and characteristics of mass events and processes. Quantitative measures of variation: width of dispersion, total dispersion and standard deviation, sample dispersion and standard deviation, coefficients of variation. Interpreting the standard deviation: Chebyshev's rule, a rule of thumb. Asymmetry indicators. Optimal limits of variation.	2
8	<b>Dispersion. Types of dispersion</b>	Dispersion and standard deviation properties and their uses. The procedure for calculating dispersion and standard deviation in the "conditional moment" and "sum" methods. Alternative variation of signs. The concept of boundaries. Boundary methods: rectangular charts and levels. Intragroup and intergroup deviations. The rule for adding dispersion and its application in the study of the relationship of socio-economic phenomena. Empirical correlation. Determination coefficient.	2

<b>9</b>	<b>Application of selective observation in statistical research</b>	The essence of selective observation, the reasons and benefits of its use. Determination and assessment of target parameters. Get almost complete and accurate information about the training package. Save time and money. Broader and more complete study of the object of observation. Determination and assessment of target parameters. Representativeness of selection and the selection methods that provide it.	<b>2</b>
<b>10</b>	<b>Selective observations error, ways of determining the required observation size and distribution of observation results</b>	Selective tracking types and errors. Small sample and its features Ways of dissemination of the results of selective observation among the general population. Mean Confidence Interval: Normal Statistics. Confidence interval for the mean of the total set: Student's t statistics. Determine the required number of sample bags. Application of selective monitoring in a market economy	<b>2</b>
<b>11</b>	<b>Statistical study of interactions</b>	Necessity and methods of statistical research of the relationship of socio-economic events and processes. Grouping, comparison of parallel rows, display, dispersion and correlation regression methods. Terms of use of correlation-regression analysis. The concept of interactions and their types: functional and correlation. Functional relationship depending on a number of factors. In correlation analysis, the density of connections between events.	<b>2</b>
<b>12</b>	<b>Methods for studying the density of interactions</b>	A pair of correlation and regression equations. Direct and curvilinear correlation and regression. Correlation coefficient and its calculation. Determination of the parameters of the double regression equation by the small squares method. Nonparametric methods of statistical research of correlations. Single and multivariate regression models. Methods for investigating the density of dependencies. Fechner and Spearman correlation coefficients.	<b>2</b>
<b>13</b>	<b>Methods of statistical research of dynamics.</b>	Indicators of analytical analysis of time series: absolute change, rate of change, rate of additional change, absolute value of one percent of additional change, point of change (percentage). Methods for calculating the level of averages in time series. Chronological average, simple and weighted arithmetic average. Average rate of change and rate of additional changes.	<b>2</b>
<b>14</b>	<b>Economic indices</b>	Concept, essence, value of economic indicators. Classification of economic indicators. Individual and general indicators. Aggregate indicators and the problem of choosing a weight when constructing them. Laspeyres and Paasche indices. Arithmetic average and harmonic average indices. Fisher's index.	<b>2</b>
<b>15</b>	<b>Areas of application of economic indices in statistical practice</b>	The problem of regional indices and weight choice in their construction. Base and chain aggregates. Aggregated indicators of constant and variable weight. Interregional comparative indices and issues of their formation. Index analysis of the influence of factors on the average dynamics. Indexes with variable and fixed content. Assess the impact of structural changes. Index of structural changes. Use of the index of structural breaks in explaining "statistical paradoxes". Index analysis of multivariate structural breaks and their effects. Shifts in the assortment and	<b>2</b>

		analysis of their impact by the index method. Index analysis of the role of factors influencing the absolute growth of the final indicator. Important economic indicators and their relationship.	
	<b>Total for the III semester</b>		<b>30</b>
	<b>VI semester</b>		
	<b>2- module. Socio-economic statistics</b>		
<b>16</b>	<b>Population statistics</b>	History of population statistics. Population statistics study object. The main tasks of population statistics. Population and composition statistics. Methods for determining the average population. Distribution by total population and important characteristics. Population categories: permanent and existing population, temporary residents and temporary non-residents. The relationship between the permanent and the existing population. Population age pyramid.	<b>2</b>
<b>17</b>	<b>Population movement statistics</b>	Vital indicators: general, specific and special indicators. Absolute and relative indicators of population movement. Indicators of mechanical population displacement. Indicators of the demographic load of the population. Forecasting the future of the population. Calculation of the future population using global and age methods. Forecasting the dynamics and prospects of the world population.	<b>2</b>
<b>18</b>	<b>Labor market statistics</b>	Objectives of labor market statistics in a market economy and the socio-economic significance of its statistical research. Definition of the concept of labor resources and their quantity. Workforce balance and its importance. The concept of the economically active and inactive population and their composition. Employment and unemployment statistics. Classification of the population by employment status. Indicators of the size and composition of the employed population. Forms, types and levels of unemployment. Statistical study of the dynamics of unemployment.	<b>2</b>
<b>19</b>	<b>Balance of labor resources</b>	Personnel statistics. Labor force efficiency indicators. Funds of working time and the coefficients of their use. Remains of labor resources and working time. The concept of labor productivity and the importance of its statistical study. Indicators for determining the level and dynamics of labor productivity. Forms and systems of remuneration. Payroll and composition indicators. Social payments statistics.	<b>2</b>
<b>20</b>	<b>The system of national accounts and the system of macroeconomic indicators</b>	The concept of a national accounting system and the history of its origin. Differences and similarities between the balance of the national economy (balance of the national economy) and the system of national accounts (NAS). The need to maintain a system of national accounts. structure of the system of accounts of the system of national accounts, general rules for their formation. Institutional sectors and the system of national accounts. Using the system of national accounts in macroeconomic analysis.	<b>2</b>
<b>21</b>	<b>Methods of calculating gross domestic product</b>	GDP is a key macroeconomic indicator of a country. Restriction of production in the system of national accounts. Principles (rules) for determining the volume of production and types of assessment: factorial, basic, production and consumer. Methods for calculating GDP. The calculation of GDP by the production method. Calculation of GDP by the income distribution method.	<b>2</b>



<b>22</b>	<b>National income statistics</b>	General concepts of income and indicators of income in the system of national accounts. J. Hicks' Income Doctrine. The new system of national accounts is based on the teachings of J. Hicks. Nominal and real income. Statistics of distribution, redistribution and final use of national income. Statistics on gross national income, net national disposable income, gross national fund, net national fund indicators. International comparison of macroeconomic indicators.	<b>2</b>
<b>23</b>	<b>The statistics of national wealth</b>	The concept of national wealth in the context of economic modernization and the socio-economic significance of its study and the tasks of statistics. Balances of assets and liabilities of the system of national accounts. Business reputation and marketing assets, mineral resources, energy minerals. Financial assets, produced and non-produced non-financial assets, property of the population	<b>2</b>
<b>24</b>	<b>Fixed and working capital statistics</b>	The concept of fixed assets, their composition and types of valuation (by initial, residual and replacement cost). Depreciation of fixed assets and methods for calculating depreciation. Remains of fixed assets. Condition, movement and use of fixed assets. Statistical study of the statistics of working capital, their composition, assessment, turnover rate and the duration of one cycle.	<b>2</b>
<b>25</b>	<b>Financial market statistics</b>	Higher financial estimates and rough estimates: higher interest rates; compound interest; discount finance rent or annuity. Socio-economic significance and importance of statistical research of financial markets. Government finance statistics. The main tasks of state budget statistics. Statistical study of state budget revenues and expenditures, budget deficit (surplus).	<b>2</b>
<b>26</b>	<b>Money circulation and credit statistics</b>	Socio-economic significance of money circulation and the function of statistics. Methodological Foundations of Monetary Statistics (International Standard). Monetary base. Credit and loans. The main indicators of the statistics of money circulation. Methods for calculating and analyzing banking statistics.	<b>2</b>
<b>27</b>	<b>Statistical research of the insurance market</b>	Subject and tasks of statistics of the insurance market. Statistical research of the insurance and insurance market. The system of indicators of statistics of the insurance market. Property insurance statistics indicators. Statistics of rates of insurance rates. Personal insurance statistics. Social security and social insurance statistics.	<b>2</b>
<b>28</b>	<b>Foreign economic activity statistics</b>	Foreign economic activity, its history and main directions, as well as its role in the development of the country's economy. Methodology of statistics of foreign economic activity and its tasks. Indicators of foreign economic activity. Coverage of foreign economic relations in macroeconomic statistics. Types of import and export. Prices used in import and export accounts. Index method in foreign trade statistics. Foreign economic activity statistics in the system of national accounts.	<b>2</b>

<b>29</b>	<b>Payment balance</b>	Balance of payments concept. Basic concepts of the balance of payments and the importance of its statistical study. Balance of payments classification and international investment approach. Balance of payments concept. Use the principles of comparison of indicators of developed countries and the system of national accounts and balance of payments rules. The principle of accounting for balance of payments transactions. Payment balance.	<b>2</b>
<b>30</b>	<b>Population living standard statistics</b>	The concept of the standard of living. The system of indicators characterizing the standard of living of the population. Qualitative indicators of the standard of living. Socio-economic indicators are the average and the degree of median change. Areas of statistical research of the standard of living. Synthetic and value indicators of the standard of living of the population, physical indicators, relative indicators of the distribution and composition of wealth. Human Development Index.	<b>2</b>
<b>Total for IV semester</b>			<b>30</b>

**Methodical instructions and recommendations for practical training  
(Laboratory and term papers are not planned)**

<b>№</b>	<b>Topics</b>	<b>Hour</b>
<b>Autumn semester</b>		
1	Introduction to the science of statistics	2
2	Theory and practice of collecting statistical data	2
3	Statistical summary and grouping.	2
4	Displaying statistical data in tables and graphs	2
5	Vizual statistical indicators	2
6	Average values	2
7	Methods for estimating variation in statistics and the basics of analysis of dispersion	2
8	Dispersion. Types of dispersion	2
9	Application of selective observation in statistical research	2
10	Selective observations error, ways of determining the required observation size and distribution of observation results	2
11	Statistical study of interactions	2
12	Methods for studying the density of interactions	2
13	Methods of statistical research of dynamics	2
14	Methods of statistical research of dynamics.	2
15	Economic indices. Areas of application of economic indices in statistical practice	2
<b>Total autumn semester</b>		<b>30</b>
<b>Spring semester</b>		
16	Population statistics	2
17	Population movement statistics	2
18	Labor market statistics	2
19	Balance of labor resources	2
20	The system of national accounts and the system of macroeconomic indicators	2
21	Methods of calculating gross domestic product	2
22	National income statistics	2
23	The statistics of national wealth	2
24	Fixed and working capital statistics	2
25	Financial market statistics	2

26	Money circulation and credit statistics	2
27	Statistical research of the insurance market	2
28	Foreign economic activity statistics	2
29	Payment balance	2
30	Population living standard statistics	2
	<b>Total</b>	<b>30</b>

Practical classes are in an auditorium equipped with multimedia devices should be conducted by one teacher per group. It is advisable to conduct classes using active and interactive methods, using appropriate pedagogical and information technologies.

**Laboratory work.** No laboratory sessions scheduled.

### **V. Independent study and independent work**

The student's independent study of the subject is an integral part of the process of studying the subject and is fully equipped with methodological and informational resources. Students listen to the lectures of professors and solve practical examples in the classroom. Outside the classroom, the student prepares for lessons, takes notes of literature, does homework. He also reads additional literature, prepares abstracts (presentations) and solves tests on the topic in order to learn more about some topics. Implements issues, case studies and training projects on the subject, collecting information from the Information Resource Center and socio-economic indicators of enterprises and organizations that are the subject of research, as well as data from the State Statistics Committee of the Republic of Uzbekistan. Do homework, study new knowledge independently, search for and find ways to find the necessary information, collect data and conduct research using the Internet, within a scientific circle or independently from scientific sources using scientific articles (theses) and lectures, deepens the knowledge of students in the classroom, develops their independent thinking and creative abilities. Therefore, without independent learning, learning cannot be effective. The teacher conducting the practical lesson does homework review and assessment, and the level of mastery of the abstracts and topics are checked and evaluated by the teacher conducting the lectures in each lesson.

#### **Independent education and work. Recommended topics for independent study::**

- 1 Introduction to the science of statistics
- 2 Theory and practice of collecting statistical data
- 3 Statistical summary and grouping.
- 4 Displaying statistical data in tables and graphs
- 5 Visual statistical indicators
- 6 Average values
- 7 Methods for estimating variation in statistics and the basics of analysis of dispersion
- 8 Dispersion. Types of dispersion
- 9 Application of selective observation in statistical research
- 10 Selective observations error, ways of determining the required observation size and distribution of observation results
- 11 Statistical study of interactions
- 12 Methods for studying the density of interactions
- 13 Methods of statistical research of dynamics
- 14 Methods of statistical research of dynamics.
- 15 Economic indices. Areas of application of economic indices in statistical practice
- 16 Population statistics
- 17 Population movement statistics
- 18 Labor market statistics
- 19 Balance of labor resources
- 20 The system of national accounts and the system of macroeconomic indicators
- 21 Methods of calculating gross domestic product

- 22 National income statistics
- 23 The statistics of national wealth
- 24 Fixed and working capital statistics
- 25 Financial market statistics
- 26 Money circulation and credit statistics
- 27 Statistical research of the insurance market
- 28 Foreign economic activity statistics
- 29 Payment balance
- 30 Population living standard statistics

It is highly recommended that students prepare and represents prepare essays on independently mastered topics.

#### **VI. Criteria for assessing students' knowledge and requirements for obtaining credits**

Theoretical materials on science are provided through lectures, participation in lectures and consolidation of lectures through a credit-modular platform, as well as answers to the identified test questions.

The development and acquisition of practical skills in practical and laboratory exercises is controlled through full participation in learning and completing assignments through a modular platform.

#### **Criteria for assessing students' knowledge**

<b>Assessment</b>	<b>Student knowledge level</b>
<b>5</b> (great)	Students can make independent conclusions and decisions, think creatively, conduct independent research, apply knowledge, describe the essence of the subject, understand, know, explain.
<b>4</b> (well)	students can independently apply their knowledge, understand the essence of the subject, understand, describe, correlate and comprehend the subject
<b>3</b> (satisfactorily)	students can apply their knowledge, understand, know, describe the essence of the subject, talk about it
<b>2</b> (unsatisfactory)	the student does not know the main content of the subject, does not understand the essence of the subject and does not understand the key concept of the subject.

The final type of control and assessment of the student's knowledge of this type of control is carried out by a professor who did not conduct training. Based on the assessment criteria specified in the science program, students who have mastered this subject will be awarded the credit specified in the curriculum of the relevant field of study.

#### **Basic and additional educational literature and information sources.**

##### **Basic literature:**

1. James T. McClave, Terry Sincich. Statistics.—12th ed. 2013. – 814 p.
2. Shodiev X., Khabibullaev I. Statistics: textbook. - T .: "ECONOMY-FINANCE", 2019.-454 p.
3. H. Shadiev, I. Khabibullaev. Workshop on statistics. Textbook. - T.: ECONOMY-FINANCE 2015 .-- 334 p.
4. Soatov N. Statistics. Textbook. - T .: Abu Ali ibn Sino, 2013. - 743 pages.

##### **Additional Literature:**

5. Decree of the President of the Republic of Uzbekistan Sh. Mirziyoyev "On the Strategy of actions for further development of the Republic of Uzbekistan" Uzbekistan 07.02.2017
6. The Constitution of the Republic of Uzbekistan - T .: Uzbekistan, 2014. - 46 p.
7. Статистика. Учебник. /Под ред. И.И. Елисейевой. – М.: Проспект, 2010. – 448 стр.
8. Statistical Mohammed A. Shayib Applied Statistics 2nd edition 2013 year
9. Robert Jonsson Exercises in Statistical Inference with detailed solutions 1 st edition 2014 year.
10. Juha M. Alho and Bruce D. Spencer Demography and Forecasting 2005

11. Улитина Е.В. и др. Статистика. Учебное пособие. – М.: Маркет ДС, 2010. – 312 стр.
12. Теория статистики. Учебник. Под ред. Р.А.Шмойловой. – М.: Финансы и статистика, 2005. – 655 стр.
13. Ayubjanov AH, Mamatkulov BH, Sayfullaev SN. Textbook for practical training in statistics. - T.: TDIU, 2012. - 186 pages.
14. Statistika. Practicum. Uchebnoe posobie. / Pod red. V.N. Salina. - M.: KNORUS, 2009. - 496 стр.
15. Statistika. Practicum. Uchebnoe posobie. / Pod red. V.N. Salina. - M.: KNORUS, 2009. - 496 стр.

**Websites**

16. [www.stat.uz](http://www.stat.uz) - the official site of the State Statistics Committee of the Republic of Uzbekistan.
17. [www.mf.uz](http://www.mf.uz) - Website of the Ministry of Finance of the Republic of Uzbekistan.
18. [www.lex.uz](http://www.lex.uz) - National Database of Legislation of the Republic of Uzbekistan.
19. [www.mineconomu.uz](http://www.mineconomu.uz) - Website of the Ministry of Economy of the Republic of Uzbekistan.
20. [www.mehnat.uz](http://www.mehnat.uz) - Website of the Ministry of Labor of the Republic of Uzbekistan.





