

# ACCOUNTING IN APPLIED SOFTWARE SOLUTIONS

Department of Accounting and Taxation

Faculty of Economics

<b>Lecturer</b>	<b>Volodymyr Lytvynenko</b>
<b>Term</b>	<b>3, semester 5</b>
<b>Major</b>	<b>Bachelor</b>
<b>ECTS credits</b>	<b>5</b>
<b>Control</b>	<b>Exam</b>
<b>Class-room hours</b>	<b>45 hours (of them: laboratory classes – 45 hours)</b>

## Subject overview

Accounting in applied software solutions encompasses creating, representing, transferring, and storing financial information in an electronic format. With digital accounting, financial data is no longer stored on paper. Yet, that does not mean the accountant's role is no longer needed. Rather, Accounting in applied software solutions empowers accountants to use software and make the accounting cycle more efficient and error-free. Accounting in applied software solutions is a practical course that will give real skills in working with modern software.

During the course, students will:

- install and configure accounting software;
- create accounting documents in the software;
- Keep records of assets, equity and liabilities in software: accounting of inventory, goods, cash, buildings, equipment, wages, accounts payable, etc;
- keep records of sales of goods and payments from customers;
- create financial statements in the software;
- analyse the main financial indicators of business activity.

## Laboratory classes:

1. Basic information about the computer accounting program.
2. Program Modes and Settings.
3. Preparation for work. Registration of a new company.
4. Directories and registers in the program.
5. Working with directories: creating and moving elements and groups.
6. Working with directories: creating, editing, and deleting elements.
7. Introduction of initial balances on fixed assets.
8. Introduction of initial balances for goods and materials.
9. Making initial payroll balances.
10. Making initial balances on settlements with counterparties.
11. Accounting for payroll and accruals.
12. Accounting for cash transactions.

13. Accounting for settlements with accountable persons.
14. Accounting for transactions on bank accounts.
15. Accounting for the purchase and sale of currency.
16. Accounting for the purchase of goods and materials.
17. Additional costs for the purchase of goods and materials. Purchase of equipment.
18. Production accounting.
19. Accounting for product sales. Manual operations.
20. Accounting for fixed assets.
21. Closing the period. Determination of financial results. Enterprise reporting in the program.

# ECONOMETRICS

Department of Statistics and Economic Analysis

Faculty of Economics

<b>Lecturer</b>	<b>Oksana Makarchuk</b> <b>Associate Professor, Ph.D. of Economics,</b> <b>Department of Statistics and Economic Analysis</b>
<b>Term</b>	<b>Year of study 3, Semester 5</b>
<b>Major</b>	<b>Bachelor degree</b>
<b>ECTS credits</b>	<b>4</b>
<b>Control</b>	<b>Exam</b>
<b>Class-room hours</b>	<b>60 hours (of them: lectures – 30 hours, practical or laboratory classes – 30 hours)</b>

## Subject overview

Econometric models and methods are applied in the daily practice of virtually all disciplines in business and economics like finance, marketing, microeconomics, and macroeconomics. Decision making in business and economics is often supported by the use of quantitative information. Econometrics is concerned with summarizing relevant data information by means of a model. Such econometric models help to understand the relation between economic and business variables and to analyse the possible effects of decisions.

Econometrics is an interdisciplinary discipline. This discipline uses insights from economics and business in selecting the relevant variables and models, it uses computer science methods to collect the data and to solve econometric models, and it uses statistics and mathematics to develop econometric methods that are appropriate for the data and the problem.

Applied practical skills will be developed during the study of the discipline with the use of information technology tools (MS Excel, SPSS, Gretl etc.), acquiring the skills of the use econometric research methods.

## Lectures:

1. Subject, methods and objectives of discipline.
2. Methods of the general linear model.
3. Multicollinearity and its impact on the estimation of the model parameters.
4. Generalized least squares.
5. Econometric model of the dynamics.
6. Empirical methods of quantitative analysis based on statistical equations.
7. Autocorrelation and its impact on the estimation of the model parameters.
8. Methods of instrumental variables.
9. Distributed lag models.
10. Econometric models on the basis of system structural equations.
11. Econometric modeling based on nonlinear regression.

**Classes:**  
***(practical, laboratory classes)***

1. Subject, methods and objectives of discipline.
2. Methods of the general linear model.
3. Multicollinearity and its impact on the estimation of the model parameters.
4. Generalized least squares.
5. Econometric model of the dynamics.
6. Empirical methods of quantitative analysis based on statistical equations.
7. Autocorrelation and its impact on the estimation of the model parameters.
8. Methods of instrumental variables.
9. Distributed lag models.
10. Econometric models on the basis of system structural equations.
11. Econometric modeling based on nonlinear regression.

# ECONOMIC AND MATHEMATICAL METHODS AND MODELS

Department of Statistics and Economic Analysis

Faculty of Economics

<b>Lecturer</b>	<b>Oksana Makarchuk</b> <b>Associate Professor, Ph.D. of Economics,</b> <b>Department of Statistics and Economic Analysis</b>
<b>Term</b>	<b>Year of study 3, Semester 6</b>
<b>Major</b>	<b>Bachelor degree</b>
<b>ECTS credits</b>	<b>4</b>
<b>Control</b>	<b>Exam</b>
<b>Class-room hours</b>	<b>60 hours (of them: lectures – 15 hours, practical or laboratory classes – 45 hours)</b>

## Subject overview

The course “Economic-Mathematical Methods and Models” belongs to series of disciplines that form main knowledge’s of the future specialists, equipping them with basic skills of the theory and practice in the application of economic and mathematical methods and models, because economic systems can’t be effectively studied without using the modern theoretical methods and practical experiment.

The purpose of studying this course is to form future specialists in modern thinking and give them a system of fundamental theoretical knowledge of economic-mathematical methods and models, and applied practical skills using information technology tools (including MS Excel, etc.); acquiring skills in research and analysis of economic processes and phenomena to make adequate management decisions.

This course examines the main mathematical methods and models devoted to the tasks of researching economic systems and processes, since the construction of an adequate mathematical model is the primary basis for the further application of computer technologies in order to make reasonable management decisions in real conditions.

## Lectures:

1. Theoretical foundations of mathematical modeling and classification of models.
2. Principles and stages of construction economic and mathematical models.
3. Basic methods of formalizing economic conditions.
4. The general problem of linear programming and its canonical form.
5. Geometric interpretation of linear programming problems.
6. The solution of simplex method and its modifications.

7. Theory of duality and duality of linear optimization estimates tasks.
8. Transport problems of linear programming.
9. Analysis of optimization solutions tasks.
10. Mathematical modeling of the agricultural branch.
11. Production models.
12. Application of financial models.

**Classes:**

***(practical, laboratory classes)***

1. Theoretical foundations of mathematical modeling and classification of models.
2. Principles and stages of construction economic and mathematical models.
3. Formalizing economic conditions.
4. The general problem of linear programming and its canonical form.
5. Geometric interpretation of linear programming problems: graphical method.
6. The application of the use of the simplex method.
7. Theory of duality and duality of linear optimization estimates tasks.
8. Transport problems of linear programming.
9. Analysis of optimization solutions tasks.
10. Mathematical modeling of the agricultural.
11. Production models.
12. Application of financial models.

# **ECONOMICS: MACROECONOMICS**

## **Department of Economic Theory**

### **Faculty of Economics**

Specialty 076 Entrepreneurship and trade  
(OPP "Entrepreneurship, trade and stock market activity")

<b><i>Lecturer</i></b>	<b>Doctor of economics Talavyria Mykola</b>
<b><i>Term</i></b>	<b>III semester</b>
<b><i>Major</i></b>	<b>Bachelor degree</b>
<b><i>ECTS credits</i></b>	<b>2,5</b>
<b><i>Control</i></b>	<b>Exam test</b>
<b><i>Class-room hours</i></b>	<b>60 hours (of them: lectures – 30 hours, practical classes – 30 hours)</b>

### **Subject overview**

Macroeconomics – that is a familiar title for an intermediate macro textbook. Although the title of the book is familiar, its philosophy is not. The title is simple, straightforward, and to the point. It reflects the philosophy of the text, which is to make the study of the macro economy no more complex than it has to be.

Macroeconomics is designed for undergraduate or MBA macro classes that are heavily populated with economics majors. It covers all the traditional theoretical and factual material that is standard in macro courses, but presents that material in a fresh manner. Some economists try to explain the complex macro economy with equally complex models, but in the end, it is doubtful that they have made the economy easier for students to understand. This macroeconomics reflects my belief that the macro economy can be analyzed, explained, and understood to a strikingly high degree of sophistication in terms of a small number of indisputable relationships that are relatively easy to grasp and retain. Thus, by design, Macroeconomics does not include the level of rigor, abstraction, and factual content that can be found in most intermediate macro texts, but which is unnecessary for students in most undergraduate and MBA classes.

Most students in an intermediate macro course will go on to be active participants in the business and financial sectors. These students need a clear and uncluttered picture of the macro economy that they can apply to their future economic dealings. As business decision makers and personal financial investors, they will need to understand the macro economy and, more importantly, to anticipate the impact changes in the macro economy will have on the state of the economy and on their business and financial affairs.

### **Lectures:**

1. The subject and method of macroeconomics.
2. Macroeconomics: Measures of economic activity.
3. Fundamental aggregate demand and supply theory.
4. An income-expenditure model of the product market.
5. Money, the money market, and interest rates.
6. Dual equilibrium – the IS-LM model.
7. Macro general equilibrium.
8. Fiscal policy and the budget.
9. The banking system and the federal.
10. More on monetary and fiscal policies.
11. Theories of consumption demand.
12. International exchange and general equilibrium.
13. International exchange and general equilibrium.
14. Economic growth and productivity.
15. Inflation and unemployment.
16. Issues in macro policy.

### **Classes:**

#### ***(practical, laboratory classes)***

1. The subject and method of macroeconomics.
2. Macroeconomics: Measures of economic activity.
3. Fundamental aggregate demand and supply theory.
4. An income-expenditure model of the product market.
5. Money, the money market, and interest rates.
6. Dual equilibrium – the IS-LM model.
7. Macro general equilibrium.
8. Fiscal policy and the budget.
9. The banking system and the federal.
10. More on monetary and fiscal policies.
11. Theories of consumption demand.
12. International exchange and general equilibrium.
13. International exchange and general equilibrium.
14. Economic growth and productivity.
15. Inflation and unemployment.
16. Issues in macro policy.



# **ECONOMICS: MICROECONOMICS**

**Department of Economic Theory**

**Faculty of Agrarian Management**

Specialty 076 Entrepreneurship and trade  
(OPP "Entrepreneurship, trade and stock market activity")

<b><i>Lecturer</i></b>	<b>PhD Vlasenko Yurii</b>
<b><i>Term</i></b>	<b>III semester</b>
<b><i>Major</i></b>	<b>Bachelor degree</b>
<b><i>ECTS credits</i></b>	<b>3</b>
<b><i>Control</i></b>	<b>Exam test</b>
<b><i>Class-room hours</i></b>	<b>60 hours (of them: lectures – 30 hours, practical classes – 30 hours)</b>

## **Subject overview**

Microeconomics is the social science that studies the implications of incentives and decisions, specifically how those affect the utilization and distribution of resources on an individual level. Microeconomics shows how and why different goods have different values, how individuals and businesses conduct and benefit from efficient production and exchange, and how individuals best coordinate and cooperate with one another. Generally speaking, microeconomics provides a more detailed understanding of individuals, firms, and markets

Course Objective: Microeconomics is the first subject of the training cycle in Economic Theory. Its importance and, at the same time, complexity arises from the fact that it is the first time the student becomes familiar with current economic models. Over the course the student will learn to formalize economic phenomena and gain an understanding of their workings. The course covers the basic economic models of consumer theory, production theory, and partial equilibrium. To provide a thorough introduction to economic theory. Starting from the basic ideas of tradeoffs, opportunity cost, and the benefits of trade, we will study how the market forces of supply and demand cause prices to be what they are. We will see the sense in which market economies are efficient, and the way governments can make our economy less or more efficient. We will delve behind the supply curve to see how firms choose their production levels to maximize profits, culminating in the model of perfect competition. Time permitting, we will look at market failures such as imperfect competition (monopoly and oligopoly) and externalities.

### **Lectures:**

1. The subject and method of microeconomics.
2. Demand, supply and their interaction.
3. Elasticity of demand and supply.
4. The theory of consumer behaviour.
5. The market and individual demand.
6. The theory of the firm: production.
7. The theory of the firm: cost of production.
8. The market of perfect competitiveness.
9. Monopoly.
10. The market of monopolistic competitiveness.
11. Oligopoly.
12. The markets for the factors of production.
13. Labor market.
14. Capital market.
15. Externalities and Public Goods.

### **Classes:**

#### ***(practical, laboratory classes)***

1. The subject and method of microeconomics.
2. Demand, supply and their interaction.
3. Elasticity of demand and supply.
4. The theory of consumer behaviour.
5. The market and individual demand.
6. The theory of the firm: production.
7. The theory of the firm: cost of production.
8. The market of perfect competitiveness.
9. Monopoly.
10. The market of monopolistic competitiveness.
11. Oligopoly.
12. The markets for the factors of production.
13. Labor market.
14. Capital market.
15. Externalities and Public Goods.

# ENTREPRENEURIAL RISKS

Department of Organization of Entrepreneurship and Exchange  
Activities department

Faculty of Economics

<b>Lecturer</b>	<b>Vitalii Radko</b>
<b>Term</b>	<b>6</b>
<b>Major</b>	<b>Bachelor degree</b>
<b>ECTS credits</b>	<b>6</b>
<b>Control</b>	<b>Exam</b>
<b>Class-room hours</b>	<b>60 hours (of them: lectures – 30 hours, practical or laboratory classes – 30 hours)</b>

## Subject overview

The purpose of the discipline "Entrepreneurial risks" is to form a system of theoretical knowledge and acquire skills and abilities in the field of analysis and identification of risks of financial and economic activity of business structures, their assessment and minimization. During the study, the following issues are considered: theoretical foundations of production organization; types and methods of production organization; organization of comprehensive production training; the process of organizational design and rationalization of production systems; organization of activities of the main production units and production infrastructure of the enterprise; organizational and production assurance of product quality and competitiveness.

Students should obtain such main competencies in a result of studying a discipline: to solve complex specialized tasks and problems in the spheres of business, trade and exchange activity or in the learning process, which involves the application of theories and methods of organization and functioning of business, trade, exchange structures and is characterized by the complexity and uncertainty of conditions.

## Lectures and Practical Classes:

1. Firms functioning in uncertainty and risk
2. Risk and its varieties. Classification of risks
3. Entrepreneurial risks and their impact on the economic decision making
4. Qualitative and quantitative analysis of economic risk
5. The degree of the risk quantitative assessment methods
6. Characteristics of production, marketing and financial risks
7. Methods of economic risks management
8. Peculiarities of financial risks management

## **EXCHANGE ACTIVITIES**

**Department of Organization of Entrepreneurship and Exchange  
Activities**

**Faculty of Economics**

<b><i>Lecturer</i></b>	<b>Valentyna Yavorska</b>
<b><i>Term</i></b>	<b>4-5 semester</b>
<b><i>Major</i></b>	<b>Bachelor</b>
<b><i>ECTS credits</i></b>	<b>7</b>
<b><i>Control</i></b>	<b>Exam</b>
<b><i>Class-room hours</i></b>	<b>105 hours (of them: lectures 75 hours, practical or laboratory classes 60 hours)</b>

### **Subject overview**

The purpose of the course "Exchange activities" studies the mechanism of organization and technology of exchange activity of commodity and stock exchanges. The purpose of studying the course is to form the future specialist's theoretical foundations and practical skills in exchange activities and the effective use of exchange transactions in their future professional activities. The tasks of the course: formation of students' knowledge of the organization of exchange activities; acquisition of practical skills in: organization of trade on the stock exchange; organization of relations with brokerage offices; use of derivatives price information for the organization of highly efficient production and sale of commodities and financial instruments.

### **Lectures:**

1. Theoretical foundations of exchange activities.
2. Development of international exchange activities.
3. Stages of formation of exchange activity in Ukraine Exchange activity in Ukraine.
4. Basic principles of regulation of exchange activities in the world.
5. Regulation of exchange activities in Ukraine.
6. Exchange as an element of market infrastructure.
7. Technological principles of exchange trade.
8. Organized commodity markets.
9. Capital markets.
10. Stockbrokers and their types.
11. The economic essence of derivatives and their classification.
12. Development of exchange trade in commodity and financial derivatives.
13. Organization of exchange trading in forward contracts.
14. Fundamentals of futures trading.

15. Exchange clearing.
16. The economic nature of risks and their types.
17. Methods of risk management.
18. Hedging strategies.
19. Futures hedging.
20. Options and their types.
21. Option hedging.
22. Fundamentals of stock analytics.
23. Fundamental analysis.
24. Technical analysis.

### **Classes:**

#### ***(practical, laboratory classes)***

1. History of exchange activities.
2. Statistics of international exchange activities.
3. Stages of formation of exchange activity.
4. Basic principles of regulation of exchange activities in the world.
5. Regulation of exchange activities in Ukraine.
6. Worlds Exchanges.
7. Technological principles of exchange trade.
8. Organized commodity markets.
9. Capital markets.
10. Stockbrokers and their types.
11. Derivatives and their classification.
12. Development of exchange trade in commodity and financial derivatives.
13. Organization of exchange trading in forward contracts.
14. Futures specifications.
15. Exchange clearing.
16. The economic nature of risks and their types.
17. Methods of risk management.
18. Hedging strategies.
19. Futures hedging.
20. Options premium calculation.
21. Option hedging.
22. Fundamentals of stock analytics.
23. Fundamental analysis.
24. Technical analysis.

# FINANCE (THEORY OF FINANCE)

Finance department

Faculty of Economics

<b>Lecturer</b>	<b>Dr. Oleksandr Labenko</b>
<b>Term</b>	
<b>Major -Finance and credit</b>	<b>Bachelor degree</b>
<b>ECTS credits</b>	<b>5</b>
<b>Control</b>	<b>Exam</b>
<b>Class-room hours</b>	<b>150 hours (includes: lectures – 30 hours, practical or laboratory classes – 30 hours)</b>

## Subject overview

This course unravels the complexities of finance, tracing its evolution, principles, and impact. Beginning with the essence of financial science, students will explore the development of financial systems, the role of financial law and policy, and the critical importance of financial safety. Key topics include public finance, taxation, government credit, national debt, and the dynamics of budget deficits. Through this journey, participants will gain insights into the financial framework that underpins economies worldwide, equipping them with the knowledge to navigate and contribute to the financial sector effectively.

## Lectures:

1. Financial science as cognition of essence of finance.
2. Genesis and evolution of finance.
3. Development of financial science.
4. Financial system.
5. Financial law and financial policy.
6. Financial safety.
7. Public finance. Taxes and tax system.
8. Government credit and national debt.
9. Budget and budgetary system.
10. Budget deficit.

**Classes:**  
***(practical, laboratory classes)***

1. Financial science as cognition of essence of finance.
2. Genesis and evolution of finance.
3. Development of financial science.
4. Financial system.
5. Financial law and financial policy.
6. Financial safety.
7. Public finance. Taxes and tax system.
8. Government credit and national debt.
9. Budget and budgetary system.
10. Budget deficit.

# INFORMATION SYSTEMS AND TECHNOLOGIES IN ECONOMICS

## Department of Economic Cybernetics

### Faculty of Information Technologies

Specialty 076 Entrepreneurship and trade (OPP "Entrepreneurship, trade and stock market activity")

**Lecturer**

**Term**

1

**Major**

Bachelor degree

**ECTS credits**

5

**Control**

Exam

**Class-room hours**

150 hours (of them: lectures – 15 hours,  
laboratory classes – 45 hours)

### Subject overview

The course "Information systems and technologies in economics" aims to introduce students to the fundamental principles and methodologies of utilizing contemporary information systems and technologies to address economic challenges. Its primary objective is to cultivate among future professionals a requisite level of information literacy and computer proficiency, enabling them to acquire practical skills in PC operation and leverage modern IT tools for problem-solving in both academic and professional contexts within their respective fields. Proficiency in navigating personal computer systems, including familiarity with operating systems and key software applications such as MS Word, MS PowerPoint, MS Excel, and online platforms, is essential for enhancing the efficiency and effectiveness of students' performance in their future roles.

### Lectures:

1. Theoretical basics of economic informatics.
2. Basics of working with business documentation.
3. Visualization of information and basics of working with computer graphics.
4. Basic concepts and role of information systems in management.
5. Presentation and visualization of economic information in MS Excel.
6. Using spreadsheet functions for data analysis.
7. Organization of databases in MS Excel.



### **Laboratory classes:**

1. Hardware of the modern personal computers.
2. Software of the modern personal computers.
3. Network office. Working with Google Apps.
4. Document formatting: working with tables.
5. Basics of working with text documents. Creating formulas, graphs in MS Word.
6. Work with charts and drawings in MS Word.
7. Automatic formatting of large documents. Document structure.
8. Creation of presentation of scientific work in MS PowerPoint.
9. Creation of advertising and illustrative material for printing by tools of MS Publisher.
10. Basics of bitmap graphics.
11. Creating and formatting tables in MS Excel.
12. Creating complex charts and diagrams.
13. Working with the AutoFill and AutoSum tools.
14. Working with different workbooks and sheets in MS Excel.
15. Logical functions of the MS Excel spreadsheet.
16. Financial functions of the MS Excel spreadsheet.
17. Data rows and forecasting tools in MS Excel.
18. Pivot tables in MS Excel.
19. Add-on for "Data Analysis" and the "Solver" tool in MS Excel.

# POLITICAL ECONOMY

Department of Economic Theory

Faculty of Economics

<b>Lecturer</b>	<b>PhD Vlasenko Yurii</b>
<b>Term</b>	<b>I semester</b>
<b>Major</b>	<b>Bachelor degree</b>
<b>ECTS credits</b>	<b>4</b>
<b>Control</b>	<b>Exam</b>
<b>Class-room hours</b>	<b>60 hours (of them: lectures – 30 hours, practical classes – 30 hours)</b>

## Subject overview

*Political economy* is a branch of social science that studies the relationship that forms between a nation's population and its government when public policy is enacted. It is, therefore, the result of the interaction between politics and the economy and is the basis of the social science discipline.

Those who research the political economy are called political economists. Their study generally involves the examination through a sociological, political, and economic lens of how public policy, the political situation, and political institutions impact a country's economic standing and future.

*Importance of Political Economy.* Political economy studies both how the economy affects politics and how politics affect the economy. As political parties come to and leave power, economic policy often changes in a country in accordance with the ideology and goals of the party in power.

As the economies of more countries become interconnected through globalism and international trade, the politics of one country can have a strong impact on the economy of another. Understanding the relationship between political power and economic decisions in one country can help other countries predict how their own economies will be impacted.

*Understanding political economy* can also help a country's economy become more resilient. If the government leaders in power at any given moment are forward-thinking, they can try to put laws and policies in place that create the greatest possibility for economic stability and growth, regardless of changing political power.

The rise of globalism and international trade means that the politics of one country can have a strong impact on the economy of another. Understanding political economy can help countries become more resilient in the face of global economic changes.

### **Lectures:**

1. The science of Political Economy.
2. The Economic System.
3. Social production and economic activities. Goods and money.
4. Commodity production and money.
5. Production costs of goods and services. Profits.
6. Market and its models. Competition and pricing.
7. Households in the economic system.
8. Firms and entrepreneurship. Income and profits.
9. Sectoral features of capital and forms of profit.
10. Social reproduction.
11. Economic development.
12. Economic functions of the state in the social reproduction.
13. Modern economic systems.
14. World economy. Forms of international economic relations.
15. Globalization and Economic Development.

### **Classes:**

*(practical, laboratory classes)*

1. The science of Political Economy.
2. The Economic System.
3. Social production and economic activities. Goods and money.
4. Commodity production and money.
5. Production costs of goods and services. Profits.
6. Market and its models. Competition and pricing.
7. Households in the economic system.
8. Firms and entrepreneurship. Income and profits.
9. Sectoral features of capital and forms of profit.
10. Social reproduction.
11. Economic development.
12. Economic functions of the state in the social reproduction.
13. Modern economic systems.
14. World economy. Forms of international economic relations.
15. Globalization and Economic Development.

# STATISTICS

## Department of Statistics and Economic Analysis

### Faculty of Economics

<b>Lecturer</b>	<b>Lesia Voliak</b> <b>Associate Professor, Ph.D. of Economics,</b> <b>Department of Statistics and Economic</b> <b>Analysis</b>
<b>Term</b>	<b>Year of study 1-2, Semester 2-3</b>
<b>Major</b>	<b>Bachelor degree</b>
<b>ECTS credits</b>	<b>6</b>
<b>Control</b>	<b>Exam</b>
<b>Class-room hours</b>	<b>180 hours (of them: lectures – 75 hours,</b> <b>practical or laboratory classes – 75 hours)</b>

### Subject overview

The educational activity of each institution of higher education is aimed at training such specialists, which could quickly adapt in real conditions and apply in practice the theoretical knowledge obtained during training. In the system of economic education, the place of "Statistics" as a discipline is determined by its role in the scientific and practical activities of society.

The main purpose of the study the Statistics is the formation in student's 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.

Applied practical skills will be developed during the study of the discipline with the use of information technology tools (MS Excel, SPSS, etc.), acquiring the skills of statistical research and analysis of social-economic phenomena's and processes for the adoption effective managerial decision making.

### Lectures:

1. Methodological Principles of Statistics.
2. Statistical observation.
3. Compilation and grouping (bunching) of statistical data. Statistical tables.
4. Analysis of the forms of statistical series distribution and their graphical representation.
5. Generalizing statistical indicators.
6. Analysis of variation.
7. Forms of statistical distribution.
8. Sampling method.
9. Statistical methods for measuring correlation.

10. Time series and their analysis.
11. Analysis of trends and fluctuations.
12. Statistical tables and graphs.
13. Subject and method of agricultural statistics.
14. Index Analysis.
15. Crop statistics.
16. Livestock statistics.
17. Statistics of production resources and efficiency of agricultural production.
18. Statistics of agricultural products.
19. Statistics of market goods and services.
20. Finance statistics.
21. Price and inflation statistics.
22. Statistics of investments and securities.

### **Classes:**

#### ***(practical, laboratory classes)***

1. Object of Statistics, its main category. Statistical methodology.
2. Statistical observation as method of data gathering.
3. Essence of statistical bunching, classification and grouping. Principles of forming groups. Statistical tables.
4. Analysis of the forms of statistical series distribution and their graphical representation.
5. The essence and kind of statistical indices.
6. Distribution regularity. Variation characteristics. Characteristic of distribution forms.
7. Characteristic of distribution center. Kinds and interconnection of dispersion.
8. Sense of sampling method.
9. Regression analysis.
10. The essence and compound elements of dynamic row. Characteristics of dynamic intensity. Average absolute and relative speed development.
11. Characteristics of main tendency of development.
12. The role and meaning of graphical method.
13. Subject and method of agricultural statistics.
14. Essence and functions of indexes. Methodological bases of bunching indexes structure.
15. Object, tasks and system of statistics for crop production indexes.
16. Object, tasks and system of statistics for animal husbandry.
17. Statistics of production resources and efficiency of agricultural production.
18. Statistics of agricultural products.
19. Statistics of market goods and services.
20. Finance statistics.
21. Price and inflation statistics.
22. Statistics of investments and securities.