

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ**

**ХАРКІВСЬКИЙ НАЦІОНАЛЬНИЙ ЕКОНОМІЧНИЙ УНІВЕРСИТЕТ  
ІМЕНІ СЕМЕНА КУЗНЕЦЯ**



**ОСНОВИ НАУКОВО-АНАЛІТИЧНИХ ДОСЛІДЖЕНЬ**

**робоча програма навчальної дисципліни**

Галузь знань **07 «Управління та адміністрування»**  
Спеціальність **073 «Менеджмент»**  
Освітній рівень **перший (бакалаврський) рівень**  
Освітня програма **Бізнес-адміністрування**

Статус дисципліни **обов'язкова**  
Мова викладання, навчання та оцінювання **англійська**

Завідувач кафедри  
менеджменту та бізнесу

Тетяна ЛЕПЕЙКО

**Харків  
2022**



APPROVED

at the meeting of Management  
and Business Department  
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**Sheet of renewal and re-approval  
syllabus of the academic discipline**

Academic year	Date of the department meeting - developer of the syllabus	Protocol number	Sign of the Head of the department

## Abstract of the educational discipline

Modern economic conditions increase the role of science in managerial decision-making. Therefore, a future management specialist must have a significant level of theoretical knowledge and practical skills in conducting scientific research and their effective organization. Managers should be able to independently organize their scientific activity, as well as know how to implement the accumulated knowledge in practical activities. Along with this, modern managers need experience in the formation of the scientific potential of the enterprise, which is accompanied by the selection and training of highly professional personnel. Such activity also necessitates the use of a scientific approach.

In the process of learning, students acquire the necessary knowledge during lectures, perform tasks related to the practical application of the acquired knowledge. The study of the theoretical provisions of the educational discipline "Fundamentals of Scientific and Analytical Research" requires their consolidation with the help of practical classes, and this constitutes a significant part of the discipline.

**The purpose of the educational discipline** is to provide students with the necessary theoretical foundations, methodological recommendations and practical skills for the organization and conducting scientific research and the implementation of their results in the practical activities of domestic and international companies.

### Characteristics of educational discipline

Course	<b>3</b>
Semester	<b>5</b>
Number of credits ECTS	<b>5</b>
Form of final control	<b>Pass</b>

### Structural and logical scheme of studying the discipline

Prerequisites	Postrequisites
Business economics	Technologies of administration and labor organization at the enterprise
Management	Enterprise activity planning
Economic analysis	Operational management

### Competences and learning outcomes of the discipline

Competences	Learning outcomes
GC 9. The ability to learn and acquire modern knowledge	LO 3. Demonstrate knowledge of theories, methods and functions of management, modern concepts of leadership
SC10. The ability to evaluate the performed work, ensure their quality and motivate the organization's personnel. SC12. The ability to analyze and structure the problems of the organization, to form reasonable solutions.	LO 6. Demonstrate the skills of searching, collecting and analyzing information, calculating indicators to substantiate management decisions.
GC 9. The ability to learn and acquire modern knowledge	LO 9. Demonstrate the skills of interaction, leadership, teamwork.
GC 9. The ability to learn and acquire modern knowledge GC 11. Ability to create and organize	LO 16. Demonstrate the skills of independent work, flexible thinking, openness to new knowledge, be critical and self-critical.

Competences	Learning outcomes
effective communications in management.	
GC 9. The ability to learn and acquire modern knowledge	LO 17. Conduct research individually and/or in a group under the guidance of a leader
GC 5. Knowledge and understanding of the subject area and understanding of professional activity. SC2. The ability to analyze the results of the organization's activities, to compare them with the factors of influence of the external and internal environment.	LO 21. Demonstrate communication, research, technological and cross-cultural skills necessary to analyze business situations; prepare, justify and present management decisions

## **The program of the educational discipline**

### **Content module 1. Fundamentals of science and scientific activity**

#### **Topic 1. Science and scientific thinking. Research technology**

Science as a system of knowledge. Classification of sciences. The main functions of science. Main categories of science: theory, fact, hypothesis, concept. Evolution of science. Scientific thinking. System elements of the theme of scientific research. Setting themes, problems, goals and objectives of scientific research. Relevance of the topic. Object and subject of scientific study.

Structural model of the domain. Types of research results. Reliability and validity of scientific results. The concept of a new scientific result. Diagram of the stakeholders.

#### **Topic 2. Methods of working with concepts**

Concept. Significant features of objects. The relationship of concepts and words. The nature and extent of concepts. The relationship between concepts. Generic and specific concepts. Conclusion and limitations of concepts. Types of concepts. Definitions. Terms of designations.

Classification of concepts. Regulation of classifications. Errors in classification.

### **Content module 2. Technology of scientific and analytical research**

#### **Topic 3. The technology of working with literature**

The necessity of the study of scientific literature. Typology of scientific and technical information, the main types of publications. Methods and techniques of information search. A bibliography. Methods of study and treatment of references. Study books and articles. "Slow" and "quick" reading technologies. Principles of reading.

Types of analysis and memorization of information: abstract, summary, scientific abstracting, scientific review. Stages of the scientific literature. Citation.

Finding information in the Internet. Searching engines.

#### **Topic 4. Presentation of research results**

Presentation of research results. Articles, abstracts, monograph. Scientific and technical report. Report of student's scientific research work. System elements of the scientific discussion. Methods of reasoning in a scientific discussion. The general idea of public appearance. Oratory speech as a process. Improvisation.

#### **Topic 5. Research methods and models**

Mathematical methods. Methods of economic life researching. The analysis and synthesis.

Induction and deduction. Analogy. Idealization, abstraction, ranking. Methods of establishing causal relations. Methods of empirical research: observation, comparison, measurement, experiment. Methods of theoretical research: abstraction, idealization, formalization, generalization, experiment axiomatic method, hypothetical method of modeling.

Models and modeling – a tool of science. Stages of modeling. Types of models. Economic modeling. Requirements for models.

The list of practical classes, as well as questions and tasks for independent work is given in the table "Rating-plan of the educational discipline".

### **Teaching and instruction methods**

The main method of teaching the discipline is an explanatory-illustrative method, which is a tool for studying theoretical material, all lectures are presented in the form of presentations using Microsoft PowerPoint. Methods are also used to achieve competencies and learning outcomes: problem lectures (topics 1, 5); mini-lectures (topics 2), discussions (topics 1, 4), individual research work (topics 3, 4) presentation of research results (topic 3).

### **Assessment system of learning outcomes**

Assessment of the results of the study of the educational discipline "Fundamentals of scientific-analytical research" is carried out on a cumulative (100-point) system assessment. Assessment is carried out on the following types of control:

**current control** – is carried out during the semester during the lectures and seminars and estimated by the amount of points scored (maximum score – 60 points);

**module control**, conducted in the form of a written test at the initiative of the teacher for the corresponding content module and aimed at an integrated assessment of the student's learning outcomes after studying the material from the logically completed part of the discipline - content module 1 (maximum score - 10 points);

**final control**, conducted in the form of a credit as the final number of points from the academic discipline (maximum - 100 points), is defined as the sum of the points for the student's success results during the current control, including the modular written control work, and during the final control in the form of the final written control work (maximum score – 30 points)). The points received for the written tests are added to the points for the current academic performance. The credit is given based on the results of the student's work throughout the semester.

**Current control** includes assessment of the student's knowledge during practical classes and performance of individual tasks and is carried out according to the following criteria:

**practical (seminar) classes** – the degree of assimilation of the actual material of the educational discipline; familiarization with the recommended literature, as well as with modern literature on the issues under consideration. The ability to combine theory with practice when considering situations is also assessed; logic, structure, style of presentation of the material during presentations in the audience, ability to justify one's position (9 points per practical session depending on the student's activity level (total number of points 36));

**individual task** – the ability to generalize information and draw conclusions; the ability to conduct a critical and independent assessment of certain problematic issues; the ability to explain alternative views and the presence of one's own point of view, position on a certain problematic issue; logic, structuring and validity of conclusions regarding a specific problem; literacy of material submission (maximum score – 24 points);

**performance of a written modul test** - the degree of assimilation of the actual material of the content module; logic, structure of the presentation of the material; having one's own point of view, a position on a certain problematic issue. the ability to justify it; the quality and clarity of

reasoning (the maximum score a student can receive is 10 points (one modular written test during the semester)).

**Independent work** includes:

1) studying the theoretical material from the previous lecture before each subsequent lecture session. It is evaluated according to the following criteria: depth and strength of knowledge; level of thinking; the ability to systematize knowledge on separate topics; the ability to make reasonable conclusions; possession of a categorical apparatus;

2) collection, generalization, processing of information necessary for active work in practical classes. It is evaluated according to the following criteria: skills and methods of performing practical tasks; the ability to find the necessary information; carry out its systematization and processing; self-realization in practical and seminar classes.

**The final control** (in form of written final test) of the students' knowledge and competencies in the academic discipline is a check of the student's understanding of the program material as a whole, the relationships between individual sections, the ability to use the accumulated knowledge, the ability to formulate one's attitude to the problems of the academic discipline. It covers the program of the discipline and provides for determining the degree of mastery of competencies by students, diagnosis of the level of their theoretical training. The maximum grade a student can receive is 30 points (one final written test during the semester).

The **credit** is set based on the results of the student's work during the semester as a general assessment of the discipline, as an accumulation of points, in particular, for active participation in lectures, performance of practical tasks, homework, points for control works, as well as for independent work of the student. The total result in points for the semester is: "60-100 points - credited", "59 and less points - not credited" and is entered in the credit "Performance record" of the academic discipline.

Forms of assessment and distribution of points are given in the table "Rating-plan of the educational discipline".

### Rating-plan of the educational discipline

Topic	Forms and types of education		Forms of evaluation	Max points
Topic 1	<i>Classroom work</i>			
	Lecture	Lectures 1-4. Science and scientific thinking. Technology of research work	Active participation in the discussion	
	Practical class	Practical classes 1-2. Completing tasks related to the study of the evolution of the development of science as a knowledge Practical class 3. Completing tasks to identify the system elements of the topic of scientific research, structuring the subject area of the research Practical class 4. Defense of practical tasks	Active participation in practical tasks  Active participation in practical tasks  Defense of practical tasks	9

<b>Topic</b>	<b>Forms and types of education</b>		<b>Forms of evaluation</b>	<b>Max points</b>
	<b><i>Individual work</i></b>			
	Questions and tasks for the individual work	Search, selection and review of literary sources on a given topic Completing tasks to understand the essence of the main categories of science	Checking the homework	
		Search, selection and review of literary sources on a given topic Performing practical tasks to ensure the reliability and validity of the scientific result	Checking the homework	
<b>Topic 2</b>	<b><i>Classroom work</i></b>			
	Lecture	Lectures 5-8. Methods of working with concepts	Active participation in the discussion	
	Practical class	Practical classes 5-6. Completing tasks related to awareness of the rules of definition formation Practical class 7. Carrying out tasks to identify the relationship between concepts and words Practical class 8. Performance of modul control work	Active participation in practical tasks Defense of practical tasks by topic	9
			Active participation in practical tasks Assessment of modul control work	10
	<b><i>Individual work</i></b>			
	Questions and tasks for the individual work	Search, selection and review of literary sources on a given topic	Checking the homework	
		Performance of practical tasks regarding the distinction between generic and species concepts	Checking the homework	
<b>Topic 3</b>	<b><i>Classroom work</i></b>			
	Lecture	Lectures 9-12. Technology of working with literature	Active participation in the discussion	
	Practical class	Practice classes 9-10. Solving practical tasks for mastering the methodology of studying and processing literary sources Practical class 11. Solving practical tasks regarding the analysis of literary sources according to the chosen topic	Active participation in practical tasks  Defense of practical tasks by topic	9



	<b><i>Individual work</i></b>			
	Questions and tasks for the individual work	Search, selection and review of literary sources on a given topic	Checking the homework	
		Performance of practical tasks aimed at searching for information on the Internet using search engines	Checking the homework	
	<b><i>Classroom work</i></b>			
<b>Topic 4</b>	Lecture	Лекції 13-14. Представлення результатів дослідження	Active participation in the discussion	
	Practical class	Practical classes 13-14. Solving the tasks of writing a report on the student's research work	Active participation in practical tasks	9
	<b><i>Individual work</i></b>			
	Questions and tasks for the individual work	Search, selection and review of literary sources on a given topic Preparing for the control work	Checking the homework	
	<b><i>Classroom work</i></b>			
<b>Topic 5</b>	Lecture	Lecture 15. Methods and models of scientific research	Active participation in the discussion	
	Practical class	Practical class 15. Solving practical tasks related to learning methods of researching economic phenomena and processes	Active participation in practical tasks Defense of individual task	24
		Performance of final control work	Final control work	30
	<b><i>Individual work</i></b>			
	Questions and tasks for the individual work	Search, selection and review of literary sources on a given topic Performance of practical tasks related to the application of methods of empirical research of the economy	Checking the homework	
Preparing for the control work		Checking the homework		

### Recommended books and resources

#### Main

1. Kelly M. A., Haddix P. L. The Fundamentals of Scientific Research: An Introductory Laboratory Manual. Wiley-Blackwell, 2019. – 208 p.
2. Walliman N. Research methods. The basics. 3d Edition. London, New York: Routledge, 2021. – 280 p.

### **Additional**

3. Fundamentals of Scientific Research»: textbook. / Komar Yu.M., Popov O.I., Komar V.Yu. – K: Lira-K Publishing House, 2018. – 182 p.
4. Magsamen-Conrad K. Introduction to Social Scientific Research Methods in the field of Communication. IOWA : Pressbooks, 2021. – 160 p.

### **Information resources**

5. Bhattacharjee A. Social Science Research: Principles, Methods, and Practices. Located at: [http://scholarcommons.usf.edu/oa\\_textbooks/3](http://scholarcommons.usf.edu/oa_textbooks/3).
6. Dunn P. Scientific Research and Methodology: An introduction to quantitative research and statistics in science, engineering and health. Located at: <https://bookdown.org/pkaldunn/Book>.
7. Basis of scientific analytical research: Simon Kuznets Kharkiv National University of Economics PNS webpage. Located at: <https://pns.hneu.edu.ua/course/view.php?id=5112>.