

МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
ХАРКІВСЬКИЙ НАЦІОНАЛЬНИЙ ЕКОНОМІЧНИЙ УНІВЕРСИТЕТ
ІМЕНІ СЕМЕНА КУЗНЕЦЯ

ЗАТВЕРДЖЕНО

на засіданні кафедри
менеджменту, логістики та інновацій
Протокол № 2 від 31.08.2023 р.



Проректор з навчально-методичної роботи

Каріна НЕМАШКАЛО

ОСНОВИ НАУКОВО-АНАЛІТИЧНИХ ДОСЛІДЖЕНЬ

робоча програма навчальної дисципліни (РПНД)

Галузь знань **07 "Управління та адміністрування"**
Спеціальність **073 "Менеджмент"**
Освітній рівень **перший (бакалаврський)**
Освітня програма **"Логістика"**

Статус дисципліни

обов'язкова

Мова викладання, навчання та оцінювання

англійська

Розробник:
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Гарант програми

Тетяна КОЛОДІЗЄВА

Харків
2023

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
SIMON KUZNETS KHARKIV NATIONAL UNIVERSITY OF ECONOMICS

APPROVED

at the meeting of the Department of
Management, Logistics and Innovations_
Protocol № 2 from 31.08.2023.





Vice-rector for educational and methodical work

Karina NEMASHKALO

BASICS OF SCIENTIFIC AND ANALYTICAL RESEARCH

Program of the course

Field of knowledge	"07 Management and administration"	
Specialty	"073 Management"	
Study cycle	First (bachelor)	
Study program	"Logistics"	
Course status	mandatory	
Language	english	
Developer:		
DSc, Profesor	Digitally signed	Maryna MARTYNNENKO
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Kharkiv

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INTRODUCTION

Modern economic conditions increase the role of science in making management decisions. Therefore, a future management specialist must possess a significant level of theoretical knowledge and practical skills in conducting scientific research and effective organization. The manager must be able to independently organize his research activities, as well as know how to implement the acquired knowledge in practice. A modern manager needs experience in forming the company's scientific potential, which is accompanied by the selection and training of highly qualified personnel. Such activity also necessitates the use of a scientific approach.

The course "Basics of Scientific and Analytical Research" is a mandatory educational discipline and is studied in accordance with the curriculum for the training of specialists of the first (bachelor) level of the educational program of the management of innovative activities.

The purpose of the course is to master the system of knowledge with theoretical and methodological foundations, practical skills in the organization of scientific research and their implementation in the activities of enterprises.

The tasks of the course are:

mastering scientific methods of collecting, analyzing information and substantiating research results;

formation of students' skills in writing scientific papers.

The object of the course is the process of organizing scientific and analytical research.

The subject of the course is the methodology of scientific and analytical research and the method of conducting research on specific problems of the economy based on general scientific and empirical scientific techniques, which makes it possible to study economic and social processes in their kinship, difference and historical aspect.

Learning outcomes and competences formed by the course are defined in the table. 1.

Table 1

Learning outcomes and competences formed by the course

Learning outcomes	Competences that must be mastered by a student
LO 2	GC 2
LO 3	GC 9, GC10
LO 6	SC 10
LO 11	GC 3
LO 16	GC 9

where, GC2. The ability to preserve and multiply moral, cultural, scientific values and multiply the achievements of society based on an understanding of 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 technologies, to use different types and forms of motor activity for active recreation and leading a healthy lifestyle.

GC3. Ability to abstract thinking, analysis, synthesis.

GC9. Ability to learn and master modern knowledge.

GC10. Ability to conduct research at an appropriate level.

SC10. The ability to evaluate the work performed, ensure their quality and motivate the organization's personnel.

LO2. To preserve moral, cultural, scientific values and multiply the achievements of society, to use various types and forms of physical activity to lead a healthy lifestyle.

LO3. Demonstrate knowledge of theories, methods and functions of management, modern concepts of leadership.

LO6. Demonstrate the skills of searching, collecting and analyzing information, calculating indicators to substantiate management decisions.

LO11. Demonstrate skills in situation analysis and communication in various areas of the organization.

LO16. Demonstrate the skills of independent work, flexible thinking, openness to new knowledge, be critical and self-critical.

COURSE CONTENT

Content module 1. Fundamentals of the methodology of scientific and analytical activity

Topic 1. Main categories of science.

1.1. Science as a special form of human activity.

1.2. System of scientific knowledge. Research activities.

1.3. The main product, the main purpose and functions of science. The emergence of science and its evolution.

Topic 2. Theoretical foundations of scientific and analytical research.

2.1. The concept and its essential features. Scope of the concept. The content of the concept. Generic and species concepts. Operations with concepts.

2.2. Definition and classification of concepts. Classification rules. Concepts, features, goals and objectives of research work.

2.3. Scientific direction. Research topic. Choosing a research topic and developing a working hypothesis. Basic forms of research work. Management, planning and accounting of research work

Topic 3. Information technology (part 1).

3.1. Classification of information support of scientific research. The need to study literature.

3.2. Typology of scientific and technical documents. Compilation of bibliography.

3.3. Reading technology, slow and fast reading. Reading sequence.

Topic 4. Information technology (part 2).

4.1. Understanding the text. Abstract. Extract. Compendium.

4.2. Scientific review. Stages of work with scientific literature.

4.3. Citation. Searching for information on the Internet, search engines. Search technology.

Topic 5. Methods and models of scientific research.

5.1. Concept and classification of research methods. General scientific methods: analysis, synthesis, deduction, induction, analogy, modeling, abstraction, ranking, concretization, system analysis. Methods of establishing causal relationships. Methods of empirical research: observation, comparison, experiment.

5.2. Methods of theoretical research: abstraction, idealization, formalization, generalization, experiment. Models and simulations. Concept of model. Types of models.

5.3. Stages of modeling. Economic and mathematical modeling. Requirements for models: completeness, high efficiency, small size, simplicity, low costs, accuracy

Content module 2. Technologies of conducting scientific and analytical research.

Topic 6. Types of scientific and analytical research and the main stages of their implementation.

6.1. The essence and content of the educational and research work of the applicants. Distinction between educational and research work of students. Directions of the NDRS organization.

6.2. Forms of organizing and conducting NDRS at the university. Thesis competition: organization and procedure. Competition of scientific works: organization and procedure. The purpose, tasks and conditions of the review-competition of reports on the implementation of the internship program.

6.3. The content of the work of scientific circles. Forms of work of the scientific circle. Management of a scientific group.

Topic 7. Planning scientific and analytical research and forming a team of scientific project executors.

7.1. General requirements for the structure and design of research work. Abstract of a scientific report. Objectives of presenting the results of research work.

7.2. Forms of presentation of research results: monograph, dissertation, research report, scientific articles, reports at conferences.

7.3. Requirements for scientific articles. Abstracts of the report. Distinctive features of the report and article.

Topic 8. Conducting scientific and analytical research and substantiating the

reliability of its results

8.1. The main stages of scientific and analytical research

8.2. Justification of the reliability of the results

Topic 9. Formation of analytical reports based on the results of scientific research.

9.1. Types of reports

9.2. The structure of a scientific report

9.3. Approval of the report and its registration

Topic 10. Presentation of the results of scientific research.

10.1. Work report. Systemic elements of scientific discussion. Objects and subjects of scientific discussion. Types of scientific discussion. Dispute strategy and tactics.

Methods of searching for the truth. Ways of argumentation in a scientific discussion.

10.2. Requirements for the speaker. Performance evaluation.

10.3. Preparation of scientific materials for publication. Peculiarities and problems of evaluating the effectiveness of research work. Reserves and ways to increase the effectiveness of research work.

The list of practical (seminar) and laboratory studies in the course is given in table 2.

Table 2

List of practical (seminar) and laboratory studies

Name of the topic and / or task	Content
Topic 1. Practical task 1.	A report on a famous scientific study
Topic 2. Practical task 2.	Selection of the direction and topic of scientific research
Topic 3. Laboratory work 1.	Analysis of key research concepts
Topic 4. Laboratory work 2.	Construction of a diagram based on the results of the analysis of key concepts
Topic 5. Laboratory work 3.	Formulation of the goal, object, subject and tasks of the research
Topic 6. Practical task 3.	Analysis of approaches to the classification of the main categories of research
Topic 7. Laboratory work 4.	Control work 1
Topic 8. Practical task 4.	Formulation of the problem and hypotheses regarding its solution
Topic 9. Laboratory work 5.	Determination of indicators for analyzing the state of the problem
Topic 10. Laboratory works 6-7. Practical tasks 5-7	Development of a questionnaire and conducting a survey of respondents. Suggestions for improvement and novelty of the study. Control work 2. Presentation of research results

The list of self-studies of the course is given in table 3.

List of self-studies

Name of the topic and / or task	Content
Topic 1 - 8	Studying lecture material
Topic 1 - 8	Preparation for practical classes
Topic 1 - 10	Performance of an individual research task
Topic 10	Preparation of the presentation of the results of research work

The number of hours of lectures, practical (seminar) and laboratory classes and hours of is given in the technological card of the course.

TEACHING METHODS

In the process of teaching an educational discipline, in order to acquire certain learning outcomes, to activate the educational process, it is envisaged to use such learning methods as:

Verbal (lecture (Topic 1, 2, 3, 4), problem lecture (Topic 5, 6, 7, 8, 9, 10).

In person (demonstration (Topic 1-10)).

Practical (practical tasks (Topic 1, 2, 6, 8, 10) and laboratory works (Topic 3-5, 7, 9,10), presentation (Topic 10), questionnaire (Topic 10).

FORMS AND METHODS OF ASSESSMENT

The University uses a 100-point cumulative system for assessing the learning outcomes of students.

Current control is carried out during lectures, practical, laboratory and seminar classes and is aimed at checking the level of readiness of the student to perform a specific job and is evaluated by the amount of points scored:

- for courses with a form of semester control as grading: maximum amount is 100 points; minimum amount required is 60 points

The **final control** includes current control and assessment of the student

Semester control is carried out in the form of grading.

The **final grade** in the course is determined:

- for disciplines with a form of grading, the final grade is the amount of all points received during the current control

During the teaching of the course, the following control measures are used:

Current control: individual task (project) and its presentation (maximum score – 20 points), two control works (maximum score – 20 points), competence-oriented tasks and laboratory works on topics (maximum score – 50 points, presentations (maximum score – 10 points.

Semester control: Grading

More detailed information on the assessment system is provided in technological card of the course

RECOMMENDED LITERATURE

Basic

1. Пушкар О. І. Методологія та організація наукових досліджень [Електронний ресурс] : навч. посіб. / О. І. Пушкар ; Харківський національний економічний університет ім. С. Кузнеця. - Електрон. текстові дан. (9,76 МБ). - Харків : ХНЕУ ім. С. Кузнеця, 2020. - 866 с. : іл. - Загол. з титул. екрану. - Бібліогр.: с. 849-852. - [Електронний ресурс]. – Режим доступу: <http://repository.hneu.edu.ua/handle/123456789/23346>
2. Шабельник Т. В. Математичні методи інтелектуального аналізу даних : навч. посібник для здобувачів першого рівня вищої освіти спеціальності 124 Системний аналіз / Т. В. Шабельник, О. Ф. Дяченко. – Маріуполь: МДУ, 2021. – 163 с. – [Електронний ресурс]. – Режим доступу: <http://repository.hneu.edu.ua/handle/123456789/28088>
3. Шабельник Т. В. Математичне моделювання соціально-економічних систем : навч. посібник / Т. В. Шабельник. – Маріуполь : МДУ, 2019. – 135 с. – [Електронний ресурс]. – Режим доступу: <http://repository.hneu.edu.ua/handle/123456789/28090>

Additional

4. Ястремська О. М. Поняття економічної стійкості підприємства та її кількісне оцінювання / О. М. Ястремська, О. О. Ястремська. // Бизнес Информ. - 2020. - №11. - С. 220–230. – [Електронний ресурс]. – Режим доступу: <http://repository.hneu.edu.ua/handle/123456789/25049>
5. Полякова Г. Управління якістю освіти як головний чинник конкурентоспроможності інноваційно-активного університету / Г. Полякова, О. В. Раєвнева, К. М. Азізова // Педагогічні науки: теорія, історія, інноваційні технології. Науковий журнал. – Суми : СумДПУ ім. А. С. Макаренка, 2021. – № 3(107). – С. 219-235.– [Електронний ресурс]. – Режим доступу: <http://repository.hneu.edu.ua/handle/123456789/26653>
6. Грищенко І. М. Основи наукових досліджень : навч. посібник / І. М. Грищенко, О. М. Григоренко, В. А. Борисейко. – К. : КНТЕУ, 2001. – 186 с.
7. Єріна А. М. Методологія наукових досліджень / А. М. Єріна, В. Б. Захожай, Д. Л. Єрін. – Київ : Центр навчальної літератури, 2004. – 212 с.
8. Клименюк О. В. Методологія та методи наукового дослідження : навч. посібник / О. В. Клименюк. – К. : Міленіум. – 234 с.

9. Стеченко Д. М. Методологія наукових досліджень : підручник / Д. М. Стеченко. – К. : Знання, 2007. – 317 с.

Internet resources

10. Інформаційно-пошукова система. – [Електронний ресурс]. – Режим доступу : <http://inpos.com.ua>

11. Пошукові служби Інтернет. – [Електронний ресурс]. – Режим доступу : <http://www.kinder.mksat.net/pages/libfindix/inetfind.htm>

12. Державна служба статистики України. – [Електронний ресурс]. – Режим доступу : <http://www.ukrstat.gov.ua>

13. Курс Basics of Scientific Analytical Research. – [Електронний ресурс]. – Режим доступу: <https://pns.hneu.edu.ua/course/view.php?id=8190>