

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
SUMY NATIONAL AGRARIAN UNIVERSITY**

Department of Management named by Professor L.I. Mykhailova

Faculty of Economics and Management

MODULE SYLLABUS

**The methodology of conducting scientific research
status is mandatory**

It is implemented within the educational program «Management»
(name)

in the specialty 073 «Management»
(code, name)

Qualification: Doctor of Philosophy
the third (educational and scientific) level of higher education

Sumy-2024

Author: [Signature] (Stoyanets N., D. of E.S., Professor)

Module syllabus agreed at the Department of Management named by Professor L.I. Mykhailova meeting	Protocol № 14 dated 05.06.2024
	Head of Management Department named by Professor L.I. Mykhailova <u>[Signature]</u> (A. Oriekhova)

Approved by:

Guarantor of the Academic program

[Signature]

Inna SOKHAN

Dean of the Faculty

[Signature]

Margarita LYSHENKO

Head of the Department of Postgraduate and Doctoral Studies,
where the educational program is implemented [Signature] Svetlana YAROSHCHUK
Syllabus review (attached) is provided by : [Signature] (A. Oriekhova)

Representative of the Department of Education Quality assurance,
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(N. Banaulik)

Registered in electronic data base

06.07

2024

1. MODULE OVERVIEW

1.	Title	the methodology of conducting scientific research		
2.	Faculty/Department	Faculty of Economics and Management/ Management Department		
3.	Type	mandatory		
4.	Program(s) to which module is attached	Educational and professional program "Management" in specialty 073 "Management"		
5.	Module can be suggested for (to be filled in for optional types)			
6.	Level of the National Qualifications Framework	the third (educational and scientific) level of higher education Doctor of philosophy		
7.	Semester and duration of module	1th semester, 18 weeks		
8.	ECTS credits number	3		
9.	Total workload and time allotment	Directed study		Self-directed study
		Lectures	Practicals	Labs
		14	16	60
10.	Language of instruction	English		
11.	Module leader	Stoyanets Nataliya – D.of E.S., Professor, Professor at the Management Department Hours of consultations - every Tuesday at 12.15, room 303 e		
12.	Module leader contact information	Natalystoyanez@gmail.com		
13.	Module description	<p>The course is designed to provide students with the knowledge, necessary for conducting scientific research within the framework of the dissertation work.</p> <p>The course covers the main issues of methodology and organization of research activities, concepts, principles, features of planning, methods, structure and technologies of theoretical and experimental research.</p> <p>The course improves students' ability to think critically and constructively evaluate the coherence and adequacy of various options and parts research process. It should affect their own research methodology of projects and develops their abilities discuss and assist other research projects, increases their competence in the research community and ability to perform other tasks related to research, such as: reviewer and opponent / panelist.</p>		
14.	Module aim	<p>The main tasks of teaching the academic discipline "methodology of conducting scientific research" are:</p> <ul style="list-style-type: none"> - obtaining knowledge in the field of scientific knowledge methodology necessary for writing a scientific qualification work (PhD); - acquiring knowledge about the organization of scientific research, writing and design of scientific articles, about the procedure for defending a PhD; - acquiring knowledge in the field of organization of scientific and research activities in a higher education institution; - the development of the future scientist's personality, the 		

		formation of competencies that contribute to self-realization in research activities
15.	Module Dependencies (prerequisites, co-requisites, incompatible modules)	is the formation and development of a scientific outlook and the scientific creativity of the researcher - graduate student and students' acquisition of skills and competencies to set scientific tasks, plan their implementation, organize the collection and processing of information, create conditions for the generation of new ideas and their practical implementation.
16.	The policy of academic integrity	<p>According to the Code of Academic Integrity of Sumy NAU, academic integrity is a set of principles, rules of conduct of participants in the educational process, aimed at forming an independent and responsible personality, able to solve problems in accordance with the educational level in accordance with law and public morality. Academic integrity of applicants for higher education involves independent performance of educational tasks, tasks of current and final control, learning outcomes. It is expected that higher education students will adhere to the principles of academic integrity, aware of the consequences of its violation, which is determined by the regulations of Sumy National Agrarian University, including the Code of Academic Integrity, Regulations on Prevention and Detection of Academic Plagiarism in Sumy NAU. https://snau.edu.ua/viddil-zabezpechennya-yakosti-osviti/zabezpechennya-yakosti-osviti/akademichna-dobrochesnist/).</p> <p>For violation of academic integrity, applicants for higher education may be held subject to such academic liability, namely:</p> <ul style="list-style-type: none"> - academic fraud (use of the telephone when writing written works) will lead to re-submission of work; - write-off - from the first warning to cancel the job; - plagiarism will cancel the job
17	Link in Moodle	https://cdn.snau.edu.ua/moodle/course/view.php?id=1575

2. CORRELATION BETWEEN MODULE LEARNING OUTCOMES (MLOs) AND PROGRAM LEARNING OUTCOMES (PLOs)

MLOs: On successful completion of the module the learner will be able to:	PLOs			How assessed
	PLO1	PLO 3	PLO 5	
MLOs 1. To know the concept, content, purpose and functions of science, the main features of scientific research, its systematicity, evidentiality and theoreticality through empirical, logical and theoretical cognitive tasks of scientific research.	x		x	Multiple-choice tests, writing essays in oral format
MLOs 2. Carry out a sequence of logic and methodology of scientific research. The main components of scientific research methodology.		x		Presentation preparation,
MLOs 3. Use basic empirical and theoretical methods of scientific research. General characteristics of empirical methods. Observation and experiment, comparison and measurement.		x		Multiple-choice tests, writing essays in oral format
MLOs 4. Determine the object, subject, and topic of research. Preliminary familiarization with the literature and definition of the main directions. Collection and selection of information for research. Formulation of general and intermediate research goals. Be able to build a research hypothesis, choose research methods.				Writing theses for participation in the conference
MLOs 5. Know the requirements for the level of scientific qualification of persons who obtain the degree of Doctor of Philosophy, and registration of the results. The project of the procedure for awarding the degree of Doctor of Philosophy		x	x	Writing a professional article

PLO 1 Apply modern tools and technologies for searching, processing and analyzing information, in particular, statistical methods for analyzing data of a large volume and/or complex structure, specialized databases and information systems.

PLO 3 Develop and research conceptual, mathematical and computer models of processes and systems, effectively use them to obtain new knowledge and/or create innovative products in the field of management and related interdisciplinary areas.

PLO 5 Deeply understand the general principles and methods of management sciences, as well as the methodology of scientific research, apply them in one's own research in the field of management and in teaching practice.

3. MODULE INDICATIVE CONTENT

Autumn semester

Topic. List of issues to be considered within the topic	Distribution of hours			Learning resources
	Directed study		Directed study	
	Lectures	Practicals	Lectures	
<p><i>Topic 1. "The concept of scientific research"</i></p> <p>1.Science as a system of knowledge. The concept, content, purpose and functions of science</p> <p>2.The main features of scientific research. Systematicity, evidentiality and theoreticity of scientific research.</p> <p>3. Empirical, logical and theoretical cognitive tasks of scientific research.</p> <p>4.Forms of organization and management of science in Ukraine. Classification of scientific research.</p>	2	4	12	1, 2, 3, 4, 5,
<p><i>Topic 2. "The concept of methodology, method, reception in scientific research Typology of research methods"</i></p> <p>1.Logic and methodology of scientific research.</p> <p>2.The concept of a systematic, complex and holistic approach in scientific research. 3.General scientific, partial and special research methods.</p> <p>4.The main components of scientific research methodology.</p>	2	4	12	1, 2, 3, 4, 5
<p><i>Topic 3. "Empirical and theoretical methods of scientific research research methods"</i></p> <p>1.Principles of a scientist. General characteristics of empirical methods.</p> <p>2.Observation and experiment, comparison and measurement.</p> <p>3.Formalization and axiomatization as methods of scientific research. General scientific theoretical methods, analysis and synthesis, their types: empirical, elementary-theoretical, structural-genetic. Deduction and induction.</p> <p>4.The concept of general and partial. Modeling and its principles.</p>	2	2	12	1, 2, 3, 4, 5,
<p><i>Topic 4. "Structure of the research: substantiation of the relevance and definition of the topic of the research, its goal, task"</i></p> <p>1.Concept of relevance of research and determination of its degree scientific development.</p>	2	2	12	3, 4, 5,

2. Definition of the object, subject, topic of research. Preliminary familiarization with the literature and definition of the main directions. 3. Collection and selection of information for research. Formulation of general and intermediate research goals.				
<i>Topic 5. "Development of conceptual provisions and apparatus research (hypotheses, methods, stages, objects, means). Study of the theoretical and practical state of the problem »</i> 1. The choice of methodology, basic theoretical provisions of the study. 2. Determination of course and prediction of research results. Building a research hypothesis, choosing research methods. 3. Types of hypotheses: null, descriptive, explanatory, basic, working, prognostic.	2	2	12	1, 2, 3, 4
<i>Topic 6. "Requirements for the level of scientific qualification of persons who obtain the degree of doctor of philosophy, registration of results"</i> 1. Processing of research data and forms of display of scientific research results 2. Analysis and generalization of research data. 3. Determining the representativeness of conclusions. 4. The project of the procedure for awarding the degree of Doctor of Philosophy	4	2	12	1, 2, 3, 4, 5
In total	14	16	60	

4. TEACHING AND LEARNING METHODS

MLOs	Teaching methods (directed study)	Hours	Learning methods (self-directed study)	Hours
MLOs 1. To know the concept, content, purpose and functions of science, the main features of scientific research, its systematicity, evidentiality and theoreticality through empirical, logical and theoretical cognitive tasks of scientific research.	Lecture, practical occupation, discussion relevant issues	6	Independent work with the textbook, performance of individual tasks	12

MLOs 2. Carry out a sequence of logic and methodology of scientific research. The main components of scientific research methodology.	Problem lecture, thematic discussion, analysis of specific situations (Case-study)	6	Independent work with the textbook, performance of individual tasks	12
MLOs 3. Use basic empirical and theoretical methods of scientific research. General characteristics of empirical methods. Observation and experiment, comparison and measurement.	Problem lecture, thematic discussion, analysis of specific situations (Case-study)	6	Independent work with the textbook, performance of individual tasks	12
MLOs 4. Determine the object, subject, and topic of research. Preliminary familiarization with the literature and definition of the main directions. Collection and selection of information for research. Formulation of general and intermediate research goals. Be able to build a research hypothesis, choose research methods.	Problem lecture, thematic discussion, "round table", "Brainstorming".	6	Independent work with the textbook, performance of individual tasks	12
MLOs 5. Know the requirements for the level of scientific qualification of persons who obtain the degree of Doctor of Philosophy, and registration of the results. The project of the procedure for awarding the degree of Doctor of Philosophy	Analysis of specific production situations, solution of situational problems.	6	Independent work with the textbook, performance of individual tasks	12

5. ASSESSMENT

5.1. Diagnostic assessment

5.2. Summative assessment

5.2.1. Intended learning outcomes methods:

No	Summative assessment methods	Grades	Deadline
	Testing	20/20%	During the semester
	Multiple choice test (intermediate certification)	15/15%	On the 7th week
	IT (individual tasks for classroom work; individual tasks for independent performance)	35/35%	At the end of each practical session; on the 14th week
	Exam (by tickets)	30/30%	According to the schedule of the session

5.1.1. Grading criteria

Summative assessment method	Unsatisfactory	Satisfactory	Good	Excellent
Testing	<i>< 12 points</i>	<i>12-14 points</i>	<i>15-17 points</i>	<i>18-20 points</i>

	<i>the correct answer was provided for less than 60% of the tasks</i>	<i>the correct answer was provided for 60%-74% of the tasks</i>	<i>75% - 89% of tasks were answered correctly</i>	<i>90% or more tasks were answered correctly</i>
Multiple choice test (intermediate certification)	<i>< 8 points</i>	<i>8-10 points</i>	<i>11-13 points</i>	<i>14-15 points</i>
	<i>< 5 correct answer</i>	<i>5-6 correct answer</i>	<i>7-8 correct answer</i>	<i>9-10 correct answer</i>
Individual tasks	<i>< 20 points</i>	<i>20-26 points</i>	<i>27-30 points</i>	<i>31-35 points</i>
	<i>Task requirements not met</i>	<i>Most of the requirements are met, but some components are missing or insufficiently disclosed.</i>	<i>All requirements of the task have been fulfilled.</i>	<i>All the requirements of the task were fulfilled, the results were presented as part of a general discussion.</i>
Exam (by tickets)	<i>< 20 points</i>	<i>20-24 points</i>	<i>25-27 points</i>	<i>28-30 points</i>
	<i>Task requirements not met</i>	<i>Most of the requirements are met, but some components are missing or insufficiently disclosed.</i>	<i>All requirements of the task have been fulfilled.</i>	<i>All the requirements of the task were fulfilled, the results were presented as part of a general discussion.</i>

Formative assessment

Formative exercises are designed to enable students to develop particular aspects of their learning, prior to summative assessments. Formative exercises are designed to help students use feedback and self-reflection to manage and develop their learning so that they can see how to improve their work.

No	Formative Assessment elements	Date
1	Testing in Google Forms, Kahoot, Quizizz	At each practical lesson (introductory control)
2	Oral feedback from the teacher and students on the implementation of individual calculation and analytical tasks	For 5 weeks
3	Oral feedback from the teacher and students on the performance of an individual task on the main types of empirical social research	For 10 weeks
4	Oral feedback from the teacher and students on the implementation of the individual task of choosing sociometric criteria	For 15 weeks
5	Oral feedback from the teacher and students on the project implementation (preparation, presentation, defense)	For 18 weeks

Self-assessment can be used as an element of summative assessment and formative assessment.

6. LEARNING RESOURCES

6.1.Key resources

6.1.1. Textbooks, manuals

1. C. George Thomas (2021) Research Methodology and Scientific Writing Kerala Agricultural University, Thrissur, India 620p.
2. B. Dharmapalan (2012) Scientific Research Methodology. Brand Narosa Publication Reference BKHPN_9788184871807 356p.
3. K. Prathapan (2014) Research Methodology For Scientific Research Paperback – Publisher: I K International Publishing House (June 23 2014) 280 pages
4. Dr R B Gupta.(2019) Social Science Research Methodology: Concepts and Processes binding : Hardbound 215 p.

5. Ranjit Kumar Research Methodology (2 ED) (2015) SAGE Publications, Limited, 352 p. ISBN-13 9781412911948

6.3 Software

- 1 Use of standard Microsoft packages: Word, Excel, PowerPoint.
- 2 Multimedia, video and sound reproduction, projection equipment (video cameras, projectors, screens).
- 3 Service for organising online classes and webinars "Zoom"

Information resources

1. Elsevier [Electronic resource]. – Access mode: <http://www.elsevier.com>.
2. Science Direct [Electronic resource]. – Access mode: <https://www.sciencedirect.com/>.
3. ORCID [Electronic resource]. – Access mode: <http://www.orcid.org>.
4. Scopus for authors [Electronic resource]. – Access mode: <https://www.scopus.com/home.uri?zone=header&origin=>.
5. Legislation of Ukraine [Electronic resource]. – Access mode: <https://rada.gov.ua/>.
6. Funding of scientific research in Ukraine and the world [Electronic resource]. - Access mode: <http://edclub.com.ua/analityka/finansuvannya-naukovyhdoslidzhenv-ukrayini-ta-sviti>.
6. Science in universities [Electronic resource]. – Access mode: <https://mon.gov.ua/ua/nauka/nauka/nauka-v-universitetah>.
7. Academic mobility [Electronic resource]. – Access mode: <https://mon.gov.ua/ua/osvita/visha-osvita/osvita-za-kordonom/akademichnamobilnist>

International specialized search engines

<http://info.studyweb.com> – a specialized search system for educational resources
<http://infomine.ucr.edu> – a virtual library of electronic publications
http://searchenginewatch.com/links/Specialty_Search_Engines – a catalog of specialized search engines

<http://www.sciseek.com> – search for scientific information Ukrainian specialized search systems

<http://meta-ukraine.com/> Meta is a Ukrainian search engine with a wide search system for various topics, including a selection of electronic dictionaries.

English-language search engines

<http://www.yahoo.com/> - an English-language search engine with the most developed structure of catalogs and various services. Hundreds of thousands of different Internet resources are manually sorted by 14 main headings, each of which has several subheadings with narrower topics.

<http://www.lycos.com/> - Lycos includes a huge database with more than 66 million URLs. This search engine (in English) contains a variety of interesting information, including news, node reviews, links to popular nodes, city maps, as well as tools for finding addresses of different people and searching for web images and sound clips.