



Syllabus of the educational component

Program of educational discipline



Basics of scientific research organization

Code and name of specialty

054 Sociology

Institute

Educational and Scientific Institute of Social and Humanitarian Technologies

Educational program

Sociology of ensuring economic activity

Chair

Sociology and public administration (305)

Level of education

Master's degree

Type of discipline

Special (professional), Mandatory

Semester

1

Language of teaching

Ukrainian, English

Teachers, developers



Moroz Volodymyr Mykhailovych

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Doctor of Sciences in Public Administration, Professor, Head of the Department of Sociology and Public Administration

Professional experience - 33 years.

The author of 246 scientific and scientific-methodological publications, 7 of which were published in publications included in the Scopus and WoS scientometric databases. He completed an internship at the Regional Institute of Administration (Lille, France), the University of Tampere (Tampere, Finland) and the Baltic International Academy (Riga, Latvia). The author and organizer of several large-scale sociological studies (representatives of the scientific community of Latvia, Finland and China acted as co-organizers of the studies) on the issues of labor potential and the quality of higher education. Member of the specialized scientific council for the defense of dissertations at the level of Doctor of Sciences. Member of the expert group of the Ministry of Education and Culture of Ukraine on professional pedagogy, psychology and content of professional (vocational and technical) education. Member of editorial boards of three scientific publications, two of which have professional status. .

[Learn more about the teacher on the department's website](https://web.kpi.kharkov.ua/sp/professors-ko-vikladats-kij-sklad/)

<https://web.kpi.kharkov.ua/sp/professors-ko-vikladats-kij-sklad/>

General information

Annotation

The educational discipline "Fundamentals of scientific research organization" ensures the formation of integral (systemic) knowledge of methodology, theory of method and process, methodical support of scientific research activity, formation, development and justification of ways and methods of effective problem solving, acquisition of theoretical knowledge and practical skills by graduate students carrying out research work.

Purpose and goals disciplines

The aim of the course is to form a coherent and logically consistent system of knowledge about the organization and conduct of scientific research in students; to prepare students for independent work on the text of course and master's theses, as well as manuscripts of scientific publications.

Format of classes

Lectures, laboratory work, independent work, consultations. The final control is an exam.

Competences

ЗК01. Ability to abstract thinking, analysis and synthesis.

ЗК02. Ability to work autonomously .

ЗК05. The ability to evaluate and ensure the quality of the work performed.

СК01. Ability to analyze social phenomena and processes.

СК02. The ability to identify, diagnose and interpret social problems of Ukrainian society and the world community

СК03. The ability to design and carry out sociological research, to develop and justify their methodology.

СК04. Ability to collect and analyze empirical data using modern methods of sociological research.

Learning outcomes

PR-01. Analyze social phenomena and processes using empirical data and modern concepts and theories of sociology.

PR-02. Diagnose and interpret social problems of Ukrainian society and the world community, their causes and consequences.

PR-05. Search, analyze and evaluate the necessary information in scientific literature, data banks and other sources.

PR-09. Plan and carry out scientific research in the field of sociology, analyze the results, justify the conclusions.

Scope of the discipline

The total volume of the discipline is 150 hours. (5 ECTS credits): lectures – 32 hours, practical work – 32 hours, independent work – 86 hours.

Prerequisites for studying the discipline (prerequisites)

"Methodology and methods of sociological research", "Philosophy".

Features of the discipline, methods and technologies of education

During the lecture classes on the academic discipline, it is provided application of the following teaching methods: explanatory -illustrative method (demonstration of presentation slides, visualization of educational material on the screen); problem presentation method; partial search, or heuristic method (lectures on individual topics are taught in a problem-based format) During seminar classes, the following is used: reproductive method (learning the basic concepts of the course); partially search or heuristic method (during the preparation of individual projects); research method (students independently study literature, sources, conduct research, measurements and perform other search actions to create a presentation on a given topic). Seminar classes can be structured in the form of a discussion.

Program of educational discipline

Topics of lectures

Topic 1. Introduction to the discipline "Methodology of organization of scientific research and method of writing scientific texts".

The place and role of science in ensuring the socio-political and socio-economic development of mankind. Scientific inventions that changed the world. Approaches to the interpretation of the categorical meaning of the definition "science".

Topic 2. Basic categories of the methodology of scientific research organization: general characteristics of the content and features of its manifestation.

Approaches to determining the categorical content "methodology". The subject of studying methodology. Methodology system, levels and classification groups. Functions of methodology in science. Approaches to the interpretation of the category "scientific research".

Topic 3. Classification (typologization) of scientific research.

Classification of sciences. Classification of scientific research and description of the content of the main classification groups.

Topic 4. Dialectic of the unity of scientific approaches, principles and methods within the scope of scientific research.

Approaches to scientific knowledge. Principles of scientific knowledge.

Topic 5. Methods of scientific research.

Methods of scientific research: the categorical content of the interpretation of the definition. General classification of scientific research methods. General characteristics of the main methods of scientific research.

Topic 6. Information provision of scientific research.

Documentary sources of information. Types of scientific documents. Reference documents and standards. Organization of examination of scientific texts. Informational and bibliographic sources of information. Techniques of working with special literature. Electronic search of scientific information.

Topic 7. Academic integrity and ethics of scientific research.

The problem of ethical and legal regulation of research activity. Academic integrity: concepts and legal principles; the content of academic integrity and its social purpose; the subject of academic integrity; criteria for determining the subject of academic integrity; structure of academic integrity; the main factors of the structural elements of academic integrity.

Topic 8. Scientific publication: concepts, functions and main types.

Definition of a scientific publication as a result of the researcher's intellectual and creative activity. Functions of scientific publication. Types of scientific publications and their general characteristics.

Topic 9. Algorithm for preparing a scientific publication and its structure.

Algorithm for preparing a scientific publication. Structure of a scientific article.

Topic 10. Basic requirements for design and submission of scientific publications.

Typical content of the requirements for design and submission of scientific publications (on the example of the international electronic scientific publication "Information technologies and teaching aids"). List of specialized publications in psychological and pedagogical sciences.

Topic 11. List of references: design requirements and features of submission in the References format .

Procedure for creating a bibliographic description in the list of sources. Rules for creating a list of references (References) transliterated in the Roman alphabet (Latin).

Topic 12. Popularization of scientific publication on the Internet.

Directions of popularization of the scientist's scientific publications. Possibilities of the electronic repository of the National Technical University "Kharkiv Polytechnic Institute" in popularizing scientific publications of a scientist (researcher).

Topics of practical classes

Topic 1. Introduction to the discipline "Methodology of organization of scientific research and method of writing scientific texts".

The place and role of science in ensuring the socio-political and socio-economic development of mankind. Scientific inventions that changed the world. Approaches to the interpretation of the categorical meaning of the definition of "science".

Topic 2. Basic categories of the methodology of scientific research organization: general characteristics of the content and features of its manifestation.

Approaches to determining the categorical content "methodology". The subject of studying methodology. Methodology system, levels and classification groups. Functions of methodology in science. Approaches to the interpretation of the category "scientific research".

Topic 3. Classification (typologization) of scientific research.

Classification of sciences. Classification of scientific research and description of the content of the main classification groups.

Topic 4. Dialectic of the unity of scientific approaches, principles and methods within the scope of scientific research.

Approaches to scientific knowledge. Principles of scientific knowledge.

Topic 5. Methods of scientific research.

Methods of scientific research: the categorical content of the interpretation of the definition. General classification of scientific research methods. General characteristics of the main methods of scientific research.

Topic 6. Information provision of scientific research.

Documentary sources of information. Types of scientific documents. Reference documents and standards. Organization of examination of scientific texts. Informational and bibliographic sources of information. Techniques of working with special literature. Electronic search of scientific information.

Topic 7. Academic integrity and ethics of scientific research.

The problem of ethical and legal regulation of research activity. Academic integrity: concepts and legal principles; the content of academic integrity and its social purpose; the subject of academic integrity; criteria for determining the subject of academic integrity; structure of academic integrity; the main factors of the structural elements of academic integrity.

Topic 8. Scientific publication: concepts, functions and main types.

Definition of a scientific publication as a result of the researcher's intellectual and creative activity. Functions of scientific publication. Types of scientific publications and their general characteristics.

Topic 9. Algorithm for preparing a scientific publication and its structure.

Algorithm for preparing a scientific publication. Structure of a scientific article.

Topic 10. Basic requirements for design and submission of scientific publications.

Typical content of the requirements for design and submission of scientific publications (on the example of the international electronic scientific publication "Information technologies and teaching aids"). List of professional publications.

Topic 11. Reference list: design requirements and features of submission in the References format.

Procedure for creating a bibliographic description in the list of sources. Rules for creating a list of references (References) transliterated in the Roman alphabet (Latin).

Topic 12. Popularization of scientific publication on the Internet.

Directions of popularization of the scientist's scientific publications. Possibilities of the electronic repository of the National Technical University "Kharkiv Polytechnic Institute" in popularizing scientific publications of a scientist (researcher).

Topics of laboratory work

Laboratory work within the discipline is not provided.

Independent work

Within the thematic direction of the content of the academic discipline, each student is invited to complete individual task. The topic of individual tasks is consistent with teacher, taking into account the educational (scientific) interests of everyone specific listener. In addition, each student must prepare theses reports for participation in the work of a scientific and communicative event or a manuscript scientific article or complete the task formulated below. The thematic orientation of the manuscript of a scientific work should correspond to the content one of the educational disciplines provided for in the educational and professional program.

Literature and educational materials

Basic literature

1. Birta G.O., Burgu Y.G. *Methodology and organization of scientific research: teaching . help K.: "Center for Educational Literature"*, 2014. 142 p.

2. Vazhinsky S.E., Shcherbak T.I. *Methodology and organization of scientific research: teaching . help Sumy: Sumy DPU named after A.S. Makarenko*, 2016. 260 p. URL:

<https://pedagogy.lnu.edu.ua/wp-content/uploads/2017/03/vajinskii-posibnyk.pdf>

3. Moroz V.M., Moroz S.A., Tereshchenko D.A. *Methodology of writing scientific texts and requirements for their preparation for printing*. Kh.: NTU "KhPI", 2022. 90 p. URL: http://web.kpi.kharkov.ua/sp/wp-content/uploads/sites/95/2022/09/Navchalnij_kontent_OND.docx
4. Medvid V., Danko Yu., Koblyanska I. *Methodology and organization of scientific research (in structural and logical diagrams and tables)*. Kyiv: University Book, 2020. 219 p. URL: http://library.megu.edu.ua:8180/jspui/bitstream/123456789/2508/1/20201113_100711.pdf
5. *Methodology and organization of scientific research: teaching . help / (I.S. Dobronravova, O.V. Rudenko, L.I. Sydorenko, etc.); under the editorship I. S. Dobronravova (part 1), O. V. Rudenko (part 2)*. - K.: VOC "Kyiv University", 2018. - 607 p. URL: <http://www.philsci.univ.kiev.ua/biblio/Methodol.pdf>
6. *Methodology and organization of scientific research (fields of knowledge: 05 – social and behavioral sciences, 07 – management and administration) [Text]: education . help / L. G. Lypych , S. M. Bortnik , I. G. Volynets, and others. ; in general ed. L. G. Lypych . - Lutsk: Vezha-Druk, 2018. - 220 p. URL: https://evnuir.vnu.edu.ua/bitstream/123456789/16477/1/MOND_2018_posibnyk.pdf*
7. Bailey S. *Academic Writing : a Handbook for International Students*. London : Routledge , 2014. 304. URL: https://edisciplinas.usp.br/pluginfile.php/5761016/mod_resource/content/1/Academic%20Writing%20Bailey%203rd%20Edition.pdf
8. Betz F. *Managing science : Methodology and organization of research* . New York : Spranger , 2010. 420 p. URL: https://fmipa.umri.ac.id/wp-content/uploads/2016/03/Frederick_Betz_Managing_Science_Methodology_andBookFi.org_2.pdf
9. Robinson P. *Academic Writing : Process and Product* . Hong Kong : British Council , 2010. 176 p. URL: https://www.teachingenglish.org.uk/sites/teaching/files/ELT-14-screen_0.pdf

Additional literature

1. *Academic integrity: modern challenges: a collection of scientific essays by participants of the remote stage of scientific training for educators (Republic of Poland, Warsaw, 02.12 - 13.12.2019)*. Polish-Ukrainian Foundation "Institute of International Academic and Scientific Cooperation", Theological Academy of Cardinal Stefan Wyszyński University, ADD Foundation. Warsaw, 2019. 148 p. URL: <https://www.iiasc.org/academichna-dobrochestnist/>
2. Bhattacherdzhi A., Sytnyk N. *Methodology and organization of scientific research: research in socio-economic sciences. Study help 2nd ed., revision. and additional K.: NTUU "KPI named after Igor Sikorsky". 2022. 173 p. URL: https://ela.kpi.ua/bitstream/123456789/49231/1/Metodolohiia_orhanizatsiia_naukovykh_doslidzhen_2022.pdf*
3. Gutorov O.I. *Methodology and organization of scientific research: teaching . Manual*. Kharkiv: KHNAU, 2017. 272 p.
4. Yevtushenko M., Khizhnyak M. *Methodology and organization of scientific research: teaching . Manual*. Kyiv: Center for Educational Literature, 2019. 350 p.
5. Kalambet S.V., Ivanov S.I., Pivnyak Yu.V. *Methodology of scientific research: teaching . help*. Dnipropetrovsk: Makovetsky Publishing House, 2015. 191 p.
6. Krushelnyska O.V. *Methodology and organization of scientific research: study guide*. K.: Condor, 2006. 206 p.
7. *Methodology and organization of scientific research: outline of lectures for masters of all specialties / compiled by O.M. Small box*. Dniprodzerzhynsk: DDTU, 2015. URL: <http://www.dstu.dp.ua/Portal/Data/1/4/1 -4-kl42.pdf>
8. Mokin, B.I., Mokin , O.B. *Methodology and organization of scientific research: study guide*. Vinnytsia: VNTU, 2014. 180 p.
9. Strokhan O.V., Miroshnychenko M.Yu. *Methodology and organization of scientific research with the basics of intellectual property: lecture notes*. Melitopol: Publishing and printing center "Lux", 2021. 152 p.
10. Khrushch N., Hryhoruk P. *Methodology and organization of scientific research*. Kyiv: Condor, 2017. 206 p.
12. Tsekhmistrova G.S. *Basics of scientific research: teaching . manual*. K.: "Slovo" Publishing House, 2004. - 240 p.
13. Chmylenko F.O., Zhuk L.P. *Guide to studying the discipline "Methodology and organization of scientific research"*. Dnipropetrovsk: RVV DNU, 2014. 48 p.
14. Shvets F.D. *Methodology and organization of scientific research: teaching . manual*. Rivne: NUVHP, 2016. 151 p.

Evaluation system

Criteria for evaluating student performance and distribution of points

Criteria for evaluating student performance and distribution of points

100% of the final grade consists of the results of the assessment in the form of an exam (40%) and the current assessment (60%).

Exam: oral task (2 theory questions) and oral presentation

Current rating:

current testing: 35% of the semester grade;

independent work in the form of essay writing

(performance of individual work) 25% of the semester grade

Rating scale

Total points	National rating	ECTS
90–100	Perfectly	A
82–89	Good	B
75–81	Good	C
64–74	Satisfactorily	D
60–63	Satisfactorily	E
35–59	Unsatisfactory (requires further study)	FX
1–34	Unsatisfactorily (re-study required)	F

Norms of academic ethics and policy of the course

The student must adhere to the Code of Ethics of Academic Relations and Integrity of NTU "Khpi": show discipline, education, benevolence, honesty, responsibility. Conflict situations should be openly discussed in study groups with the teacher, and if it is impossible to resolve the conflict, it should be brought to the attention of the employees of the institute's directorate.

Regulatory and legal support for the implementation of the principles of academic integrity of NTU "KhPI" is posted on the website: <http://blogs.kpi.kharkov.ua/v2/nv/akademichna-dobrochesnist/>

Coordination

Syllabus agreed

Date of approval, signature

Head of the department
Volodymyr MOROZ

28.06.24

Date of approval, signature

Guarantor OP
Nadiya Shanidze

27.06.24