MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

O. M. BEKETOV NATIONAL UNIVERSITY
OF URBAN ECONOMY IN KHARKIV

Methodological recommendations
for practical classes and independent work organizing
on the academic discipline

"METHODOLOGY OF SCIENTIFIC RESEARCH IN ARCHITECTURAL AND URBAN PLANNING OBJECTS"

(for first-year full-time foreigner students second (master's) level of higher education specialty 191 – Architecture and urban planning)

Kharkiv
O. M. Beketov NUUE
2025

Methodological recommendations for practical classes and independent work organizing on the academic discipline «Methodology of scientific research in architectural and urban planning objects» (for first-year full-time foreigner students second (master's) level of higher education specialty 191 – Architecture and urban planning) / O. M. Beketov National University of Urban Economy in Kharkiv ; comp. L. Martyshova. – Kharkiv : O. M. Beketov NUUE, 2025. – 23 p.

Compiler L. Martyshova

Reviewer Doctor of Architecture, professor I. V. Dreval

Recommended by the department of Urbanism and urban Planning, record № 1 on 19.08.2024

CONTENT

INTRODUCTION

The methodological instructions set out the main provisions for the organization and conduct of practical classes in the course "Methodology of Scientific Research in Architectural and Urban planning Objects ", which belongs to the normative part of the master's training of architects. These discipline is taught in close interaction with the practical course "Complex Architectural Design", "Student's Research Work", "Theory of Urban Planning", starting with the choice of a general object for design and ending with the mutual consideration of the results of scientific research, pre-design analysis and design developments in these disciplines.

The methodology of *scientific research* is considered in this course as a set of methods, techniques, research techniques used in modern science, their structural structure and sequence of implementation. The course is maximally adapted for its assimilation and use by architects.

The materials are presented taking into account interdisciplinary connections, as well as time allocation standards for theoretical and scientific research work of students in accordance with the regulations of the work program of the academic discipline.

The purpose of studying the discipline:

– mastering by masters of knowledge, skills and abilities in the field of organizing scientific research in the architectural field of knowledge.

The task of studying the discipline:

– providing the content and scope of knowledge and skills that will allow the master to independently identify problem situations in the field of architectural and urban planning activities, formulate and solve problems of scientific research;

– implement the results of scientific research into the practice of designing architectural and urban planning objects;

– write an abstract of the master's thesis.

The evaluation of students' work is a component of the differentiated overall evaluations for the semester according to the rating system. The maximum total score is 100 points.

1 GENERAL PROVISIONS

A characteristic feature of modern architectural and urban planning activity in Ukraine is the need to increase the scientific and research component in its structure. The rapid increase in the role of science in the modern world requires the future master of architecture to significantly increase the theoretical component of his training, that is, the ability to effectively organize and conduct scientific research, which is an important component of architectural and urban planning activity. Scientific research is the basis of pre-project analysis in architecture and urban planning, the foundation for building concepts of design solutions, forecasting the development of objects and the basis for determining criteria for evaluating the obtained design results. Today, in developed countries, the stage of pre-project analysis, development of a scientifically sound concept for the formation of architectural and urban planning objects and criteria for evaluating the decisions taken accounts for up to 70 % of time and money.

Before starting to perform a master's thesis, which is a scientific research, seekers of the title of "master" must familiarize themselves with the methodology and methods of scientific work. By definition, the methodology of science (rp. methodos – way, method and logos – science, knowledge) is a system of methodological and methodological principles and techniques, operations and forms of constructing scientific knowledge, which are ultimately aimed at solving certain research problems, including architectural and urban planning.

Each research work is built around a certain problem, born from the practice of observing the surrounding world and the needs of life.

Problems in the architectural and urban planning sphere of activity are generated by the *inconsistency* of the functional and spatial organization of the living *environment* with the current needs of society in the absence (or insufficiency) of scientific recommendations (algorithms) for positive changes in the situation.

To solve any problem, certain, special measures are required, namely *scientific activity*. The complexity of the tasks that a Master of Architecture solves is

determined by the insufficiency of using standard, algorithmic methods to solve a certain project task and the need to use scientific research tools to solve the problem.

Theme of practical work: development of the introductory part of the master's thesis abstract based on:

– identification of a problem situation in the architectural and urban planning environment;

– formulation of the topic of a possible scientific research;

– study of the construction of modern scientific research in the field of architecture and urban planning using an example.

The purpose of the work is to deepen and apply the knowledge gained in the lecture course, to help students master the basics of scientific research methodology and their application in developing the introductory part of the master's thesis abstract.

The work is carried out in accordance with the individual theme of the master's thesis, based on the selected problem situation in the architectural and urban planning environment.

Tasks of the work:

– identify and formulate the essence of the current problem situation in the modern architectural and urban planning space;

– formulate the topic of scientific research;

– formulate the relevance of the research topic in social, design-practical and scientific-theoretical aspects;

– describe the object of research and formulate the subject of research;

– formulate the goal and boundaries of the research;

– formulate the research tasks in a logical sequence;

– formulate the research hypothesis;

– build a research methodology based on the justified and expedient involvement of certain methods;

– determine the scientific novelty and practical usefulness of the research results.

2 STRUCTURE OF ORGANISATION OF PRACTICAL CLASSES AND INDEPENDENT WORK

When organizing and conducting practical classes on the course "Methodology of Scientific Research in Architectural and Urban planning Objects", the task is set for students to gradually acquire the knowledge and skills of conducting scientific research. To do this, before each practical class, the student must complete a certain amount of work on the topic indicated in the table below. During the practical class, the work is checked and the topic of the class is discussed.

Content and time allocation for practical classes and independent work in the course

Table 1

Theme	Contents (plan)	Number of aud. hours.
1	2	3
Content module 1 The role of scientific research in the field of architectural and urban planning activities		
Theme 1 Components of applied scientific research in the field of architecture and urban planning	– formulation of the problem of master's research and justification of its relevance; – identification and discussion of objects and subjects of master's research; – definition and discussion of the tasks and structure of the master's work; – definition and discussion of the requirements for the applied research results: scientific novelty, practical value, reliability of results	10
Content module 2 Methods of pre-design analysis of architectural and urban planning objects		
Theme 2 Methodology of scientific research as a basis for pre-project analysis of architectural and urban planning objects Application of general scientific methods in work.	– definition and application of empirical research methods: observation, measurement, comparison; – application of methods of generalization and abstraction; – definition and application of classification methods, typological analysis; – application of the method of terminological analysis; – application of the method of historical and genetic analysis; – preparation of the report on abstracts	12

Continuation of the table 1

1	2	3
Content module 3 Methods of modeling and quality evaluation of design solutions of architectural and urban planning objects.		
Theme 3 Methods of modeling and quality evaluation of design solutions of architectural and urban planning objects	– consideration of the studied architectural and urban planning object as a complex system in the structure of hierarchical space; – modeling of the studied architectural and urban planning system. Definition of its main elements; – consideration of the method of conceptual modeling; – consideration of the example of SWOT-analysis in architectural and urban planning research for cooperation with customers and the public; – reports on abstracts and presentations	10

Structure of the discipline and distribution of points

Content modules	Maximum number of points				
	total	practice	lab.	independent work	
				tasks	modular control
MODULE 1 (1 semester)	**100**	**30**	**–**	**25**	**15**
Content module 1	**20**	10	–	5	5
Content module 2	**25**	10	–	10	5
Content module 3	**25**	10	–	10	5
Final semester control	**30**	–	–	–	30

Types of the tasks, means of control and maximum number of points

Types of the tasks and means of control	Distribution of points
Content module 1	**20**
Practical task № 1 Elaboration to discuss the problem, its relevance to the object and subject of the master's work. **Task for independent work № 1** Writing abstracts up to 250 signs **Forms of control:** written control of the completed task	10
Practical task № 2 Definition and discussion of the master's work tasks and structure. **Task for independent work № 2** Writing abstracts up to 100 signs. **Forms of control:** written control of the completed task	5
Practical task № 3 Report at the lesson with the presentation of the material on CM 1. **Task for independent work № 3** Preparation of the report. **Forms of control:** written control of the completed task	5
Content module 2	**25**
Practical task № 4 Discussion and application of empirical research methods in architectural and urban planning: observation, measurement, comparison. **Task for independent work № 4** Writing abstracts up to 200 signs. **Forms of control:** evaluation of the report and defense of the task	5
Practical task № 5 Definition and application of classification methods, typological analysis. **Task for independent work № 5** Writing abstracts up to 250 signs. **Forms of control:** written and graphic control of the completed task	10
Practical task № 6 Definition and application of the method of terminological analysis. **Task for independent work № 6** Writing abstracts up to 100 signs. **Forms of control:** written and graphic control of the completed task	5
Practical task № 6 Report at the lesson with the presentation of the material on CM 2. **Task for independent work № 6** Preparation of the report. **Forms of control:** evaluation of the report and defense of the task	5
Content module 3	**25**
Practical task № 7 Analysis of modeling an architectural and urban planning system on an example. Determination of its main elements. **Task for independent work № 7** Writing abstracts up to 200 signs. **Forms of control:** written and graphic control of the completed task	5
Practical task № 8 Analysis of the architectural and urban planning concept of the formation of an urban space object on an example. **Task for independent work № 8** Writing abstracts up to 200 signs. **Forms of control:** written and graphic control of the completed task	5
Practical task № 9 Consideration of the example of SWOT analysis in architectural and urban planning research for cooperation with customers and the public. **Task for independent work № 9** Writing abstracts up to 100 signs. **Forms of control:** written and graphic control of the completed task	10
Practical task № 10 Report at the lesson with the presentation of the material on CM 3. **Task for independent work № 10** Preparation of the report. **Forms of control:** evaluation of the report and defense of the task	5
Final semester control – exam	**30**
Theoretical question 1	10
Theoretical question 2	10
Theoretical question 3	10
TOTAL FOR THE MODULE 1	**100**

3 WORK ON THE STRUCTURE AND CONTENT OF THE MASTER'S THESIS ABSTRACT

3.1 Formulation of the title of the master's thesis

During the practical work of this course, applied architectural and urban planning problems are considered. The solutions to the tasks of such works are aimed at improving a specific element of the architectural and urban planning environment, that is, the object of research.

The title of the dissertation should be as short as possible, correspond to the chosen specialty and the essence of the solved scientific problem, indicate the purpose of the dissertation research, its object and subject, as well as (possibly) the boundaries of the research. The problem always arises when old knowledge has already shown its incapacity, and the new one has not yet acquired a developed form.

Example.

Research topic: "Urban planning principles of planning improvement of green areas of public use of the historical city center". Here, the correspondence to the chosen specialty is reflected in the use of such terms as "urban planning principles", "functional planning" improvement.

The purpose of the research is to formulate the principles of planning improvement of recreational spaces of the historical city center in the conditions of reconstruction.

The object of the study is the green areas of public use of the historical city center.

The subject of the study is the planning improvement of recreational spaces of the historical city center.

The boundaries of the study are the objects considered in the conditions of reconstruction.

3.2 Content and structure of the introduction of the master's thesis abstract

The introduction reveals the following components of the study: a brief

description of the problem under study and its relevance; formulation of the relevance of the research topic in social and design-practical aspects.

To prove the relevance of the selected research topic in the social aspect, evidence of the needs of society in solving this problem is provided, which are often recorded in state or world-class documents adopted in the last 1–5 years.

The relevance of the selected research topic in the design-practical aspect is proven by citing negative examples from the practice of organizing architectural and urban space and comparing them with positive design-practical experience that requires scientific understanding for further application.

After proving the relevance of the selected topic, it is logical to proceed to the formulation of the research goal, as well as to indicate specific tasks that must be solved in accordance with this goal. This is usually done in the form of a list (study..., describe..., establish..., clarify..., derive a formula... etc.). The purpose of the study is the planned result. The result should be constructive, that is, aimed at producing a socially useful product with better quality indicators or the process of achieving it than before.

The object and subject of research are mandatory elements of the introduction. The object is a process or phenomenon that generates a problem situation and is selected for study. The subject is contained within the object. The object and subject of research as categories of the scientific process are related to each other as general and particular. The part of the object that is the subject of research is highlighted. It is to this that the master’s main attention is directed, since the subject of research determines the topic of the master's thesis, which is indicated on the title page as its name.

A brief assessment of the current state of theory and practice on the problem under study is a necessary part of the introductory part of the abstract. To formulate the relevance of the selected topic in the scientific and theoretical aspect, a brief review of the literature is compiled, from which it can be concluded that this topic has not yet been revealed (only partially revealed, or in the wrong aspect) and therefore requires further development. A specific feature of the problem is that to solve it, it is necessary to go beyond the framework of old, already achieved knowledge.

An important stage of scientific work is the choice of research methods – a tool

for obtaining factual material and a necessary condition for achieving the goal set in the work. The abstract should name these methods and why they were used. For example: methods of empirical analysis of observation, measurement were used to formulate the main characteristics of the object under study; the use of comparison and abstraction methods allowed us to develop a classification of the objects under study; the method of graphic modeling was used in the development of analytical schemes.

When substantiating novelty, comparison with similar results of other researchers is mandatory. When describing practical significance, it is necessary to indicate the form and scale of implementation of the scientific result. When formulating scientific novelty, the following expressions can be used, in particular: "formalized for the first time...", "a method... was developed that differs from...," "the dependence between... was proven," "the behavior... was studied and shown...", "the (known) method... was refined in part... and extended to a new class of systems...", "a concept was created that generalizes... and develops...", "a new effect was studied...", "a new system... was developed using a known principle...".

The practical significance of the results obtained in a dissertation with applied significance is highlighted by the results of the practical application of the results obtained or recommendations for their use.

The item "approbation of the results of the dissertation" indicates at which scientific conferences and symposia the results of the research included in the master's thesis were highlighted.

Publications. Indicate how many monographs, articles in scientific journals, collections of scientific works, conference materials and abstracts, and author certificates the results of the dissertation have been published in. The recommended volume of the introduction is no more than 8–10 % of the volume of the main part of the work.

3.3 Content and structure of the main part of the study

The content of the main part of the work must correspond to the task and requirements set out in the methodological guidelines of the relevant (profiling) department. The basis of the content of the dissertation should be new material: a generalization of already known data from other scientific positions or aspects, as

well as a description of discovered facts, phenomena and patterns. The characteristic features of the form of presentation of the content of the dissertation are a high degree of abstraction, active use of logical thinking tools, as well as the argumentation of judgments and the accuracy of the data provided. The names of the sections reflect the sequential implementation of the task. The content and volume of the main part are formed jointly by the student and the supervisor. The approximate total volume of the main part of the study (without illustrations) for the master's thesis of an architect is 60 pages (font «Times New Roman», pin 14; spacing 1,5).

The content of the main part of the work usually includes three sections (approximately 20 pages of text), each of which has 3–4 subsections, respectively 5–7 pages of text.

The following structure can be proposed for an architect's master's thesis. The first section analyzes and systematizes scientific and practical experience on the topic of research. In a literature review, the applicant outlines the main stages of the development of scientific thought on his problem. Having briefly and critically highlighted the works of his predecessors, the applicant should name those issues that remain unresolved and, therefore, determine his place in solving the problem. It is advisable to end this section with a brief summary regarding the need for research in this field.

The second section, as a rule, justifies the choice of the direction of research, provides methods for solving problems. Based on the proposed research methods, the main tasks of the work are solved (for example, formulating the principles of forming the objects under study, or methods of their architectural and urban planning organization). The third section is devoted to a description of the testing of the obtained results of the work during experimental design.

At the end of each section, conclusions are provided that briefly summarize its main achievements. Total volume of conclusions: three to five paragraphs, total 1–1,5 pages.

3.4 Content and structure of the general conclusions

The general conclusions of the dissertation serve as the conclusion, determined by the logic of conducting the research in the form of a synthesis of the scientific information accumulated in the main part. This synthesis is a consistent, logically

coherent presentation of the obtained final results and their correlation with the general goal and specific tasks set and formulated in the introduction. The general conclusions should contain brief conclusions based on the results of the work performed, an assessment of the completeness of the solution of the research tasks, recommendations for the use of the results of the work, its significance and scientific novelty. The total volume of the conclusions: five to seven positions, up to 2 pages in total.

3.5 Characteristics of the list of sources used (literature)

According to the standard requirements of TPU, all sources referenced in the text of the work are included. The sources in the list are arranged and numbered in the order of their mention in the text of the work in Arabic numerals without a period [24, p. 13]. The list of used sources is an element of the bibliographic apparatus, which contains bibliographic descriptions of the sources used and is placed after the conclusions. Such a list is one of the essential parts of the dissertation, reflecting the independent creative work of its author and demonstrating the degree of fundamentality of the research conducted. The number of processed sources for the master's thesis should exceed 50 items.

When referring in the text to the sources used, their numbers should be given (in the list of used literature), placed in square brackets, for example: "as indicated in the works [7, 11], solving environmental issues is a very relevant task in the formation of urban planning space."

3.6 Requirements for illustration design

Schemes, graphs, diagrams, etc. are referred to in the text as figures and are numbered consecutively with Arabic numerals throughout the text of the work, with the exception of illustrations placed in the Appendices.

Figures may be numbered within a section. Then the illustration number consists of the section number and the serial number of the figure, separated by a period. *Examples:*

1. Figure 5.1, Figure 5.7 (numbering in the text of section 5).
2. Figure A.7 (numbering in the Appendix A).

The illustration is placed after the text of the document immediately after the

first reference to it, if it is placed on an A4 sheet. If the illustration format is larger than A4, it should be placed in the appendix.

Illustrations should be placed so that they can be viewed without rotating the document or with a clockwise rotation.

4 CONTROL MEANS AND CREDIT STRUCTURE

Current control:

– review of presentations, essays and views (images, analytical materials on lecture themes).

– practical testing of skills and knowledge.

Module control:

– checking of tasks (drawings, analytical diagrams on lecture themes), presentations, essays, essays.

Final control in the form of an exam according to the exam tickets.

Grading scale

100-point scale	**Competence level**	**Four-point / two-point scale**	
		exam	**credit**
90–100	high	excellent	credited
82–89	sufficient	good	
74–81			
64–73	medium	satisfactory	
60–63			
35–59	low	unsatisfactory	not credited
0–34			

5 PRACTICAL WORK EVALUATION CRITERIA

The results of the work in the form of the introductory part of the explanatory note, which includes text material, are fully completed, the task of the work is completely solved.

«excellent»

The results of the work in the form of an introductory part of an explanatory note, which includes text material, are not fully completed.

«good»

The results of the work in the form of the introductory part of the explanatory note, which includes text material, are partially completed.

«satisfactory»

The results of the work in the form of the introductory part of the explanatory note, which includes text material, have not been completed.

«unsatisfactory»

RECOMMENDED SOURCES

Methodical support

1. Distance course «Methodology of scientific research in architectural and urban planning objects» at Moodle. Access mode [Electronic resource]. – Electronic text data. – Regime of access: https://dl.kname.edu.ua/course/view.php?id=4562 (date of the application: 20.03.2025). – Header from the screen.

Recommended literature and information resources

2. Aksamija A. Research Methods for the Architectural Profession. / A. Aksamija. – Routledge, 2021. – 164 p.

3. Research in Landscape Architecture: Methods and Methodology / A. V. D. Brink, D. Bruns, H. Tobi, S. Bell. – New York : NY 10017 Published by Routlege Taylor &Francis Group, 2017. – 330 p.

4. Formal Methods in Architecture: Proceedings of the 5th International Symposium on Formal Methods in Architecture (5FMA), Lisbon 2020 ; [S. Eloy, D. L. Viana, F. Morais, J. V. Vaz]. – Portugal : Published by Springer Cham, 2023. – 313 p.

5. Frontiers of Architectural Research [Electronic resource] : Periodic international journal. – Electronic text data. – Regime of access : https://www.sciencedirect.com/journal/frontiers-of-architectural-research/issues (date of the application: 20.03.2025). – Header from the screen.

6. Groat L. N. Architectural Research Methods / L. N. Groat, D. Wang. – 2nd Edition. – Published by John Wiley & Sons, Inc., Hoboken, New Jersey, 2013. – 480 p. ISBN: 978-1-118-41547-4.

7. Kudumovic L. Theory and Research in Architecture Planning and Design / L. Kudumovic, R. Kasmo. – Publisher ISBN-13. Gece Kitaplığı Yayınları, 2021. – 399 p.

9. Lucas R. Research Methods for Architecture / R. Lucas. – Published by Laurence King Publishing, 2016. – 208 p.

8. Martindale K. A. Research for Architectural Practice / K. A. Martindale. – Routledge, 2021. – 264 p.

10. Formal Methods in Architecture [Electronic resource] / Proceedings of the 6th International Symposium on Formal Methods in Architecture (6FMA), A Coruña 2022 ; [P. L. Mora, D. L.Viana, F. Morais, J. V. Vaz]. – Electronic text data. – Published by Springer, 2023. – 515 p. – Regime of access: https://www.google.com/url?sa=i&url=https%3A%2F%2Flink.springer.com%2Fbook%2F10.1007%2F978-981-99-2217-8&psig=AOvVaw24u2YVHJaQqq_hSx8_qU8i&ust=1742040669269000&source=images&cd=vfe&opi=89978449&ved=0CBQQjRxqFwoTCOi8r7bFiYwDFQAAAAAdAAAAABAT (date of the application: 20.03.2025). – Header from the screen.

11. Niezabitowska E. D. Research Methods and Techniques in Architecture. / E. D. Niezabitowska. – Published by Routledge, 2018. – 330 p.

12. Nurhayati A. M. Methodologies in Architectural Research / A. M. Nurhayati Abdul Malek. – Published by IIUM Press, 2015. – 167 p.

13. Troiani I. Visual Research Methods in Architecture / I. Troiani, S. Ewing. – Published by Dimentions, 2021. – 444 p.

APPENDIX A

Title page of the abstract

Ministry of Education and Science of Ukraine

O. M. Beкetov National University of Urban Economy in Kharkiv

LAST NAME
First name and Middle name
Group (for example: Мн АБіС-2024)

THEME of the research

ABSTRACT
Master of Architecture

KHARKIV – 202

APPENDIX B

EXAMPLE OF THE STRUCTURE OF THE MAIN PART OF A MASTER'S THESIS ABSTRACT

GENERAL CHARACTERISTICS OF THE WORK

Relevance of the research theme (1–1,5 p.) Connection of the work with important scientific programs, plans, topics. This research is carried out within the framework of scientific and research work on the state budget topic No. of the department.

Research goal: to determine the main principles and methods of architectural and urban planning organization.

Research tasks:

1. Analyze and summarize scientific and practical experience on the issue.

2. Identify the main patterns of functional, planning and compositional organization.

3. Identify the main factors influencing the structural-functional and compositional organization.

4. Identify the main principles and methods of organization

5. Verification of the research results during experimental design.

Object of the research

Subject of the research

Research boundaries: historical; geographical; etc.

Research methods. The work uses a comprehensive research methodology based on empirical apparatus.

The scientific novelty of the obtained results lies in the fact that:

– the definition of the term has been clarified_____.

The practical significance of the obtained results lies in _____.

Approbation of the results of the dissertation. The main provisions of the dissertation were disclosed and received a favorable assessment at the International Scientific and Practical Conference.

Publications. The main scientific results of the dissertation are set out in articles in scientific collections, abstracts of reports at Scientific and Practical Conferences.

Structure and scope of work. The dissertation consists of an introduction, three sections, conclusions, a list of sources used (64 names). The total volume of the work

is 80 pages, including 50 pages of the main text, 20 pages of graphic-analytical material (drawings), 10 pages of the list of sources used.

MAIN CONTENT OF THE THESIS

The introduction substantiates the relevance of the topic of the work, defines the object and subject, goal and objectives, boundaries and methods of research. The scientific novelty of the obtained results is clarified and their practical significance is substantiated. The connection with scientific topics is revealed. A list of scientific publications, approbation of the results of the dissertation, structure and scope of work are given.

In the first section «*name of the section*» the principles are identified, systematized, studied, analyzed

In the second section «*name of the section*» the principles are analyzed, established, formulated, and methods of formation are developed

In the third section «*name of the section*», on the basis of the formulated principles, a concept of formation (improvement) is developed, which is tested on the example of a design solution

The main components of a design solution are proposals:

– in the functional aspect;

– in the structural and planning aspect;

– in the compositional aspect;

– in terms of solving the tasks of ecologization and humanization of the architectural and urban environment

GENERAL CONCLUSIONS

(correspond to the formulated research tasks)

1.
2.

LIST OF PUBLISHED WORKS ON THE THESIS TOPIC

1.
2.
3.

ANNOTATION

APPENDIX C

Rules for compiling a bibliographic list of literature when performing educational and scientific work

A bibliography is a necessary element of the reference system of any printed work (published or unpublished): monograph, thesis, diploma or course work, article.

The rules for compiling a bibliographic description are regulated by the state standard "DSTU GOST 7.1:2006 "System of standards for information, library and publishing. Bibliographic record. Bibliographic description. General requirements and rules for compiling (GOST 7.1-2003, IDT)»:

1. The list includes literature cited, mentioned and studied by the author.

2. The content of the list is determined by the author of the work. Special attention is paid to the reflection of literature of the last 3–5 years, as an indicator of the author's awareness of the current state of the research topic.

3. When drawing up a bibliographic list, it is advisable to call it "List of used literature".

4. The list reflects all types of documents regardless of the form (method) of their presentation and medium (printed materials, geographical maps, electronic media, remote access information, etc.).

When compiling a list of literature, various ways of arranging bibliographic descriptions of sources are possible:

– alphabetical;

– chronological;

– systematic;

– numerical (in the order of appearance of references in the text of the work).

The most common arrangement is alphabetical, that is, in alphabetical order of the authors' surnames or the name of the source if there are no authors or more than three.

The publications specified in the list are submitted in the following order:

– works by domestic and foreign authors, printed in Russian and Ukrainian in the common alphabet, taking into account the transcription of the spelling;

– works by domestic and foreign authors in foreign languages, first the Latin alphabet, then oriental languages, if any;

– on-line information;

– statistical materials.

It is recommended to put official and guiding documents at the beginning of the list.

As a rule, the volume of the list should not exceed 5% of the volume of the manuscript.

The optimal volume of studied literature when writing a master's thesis is 40-50 sources.

Електронне навчальне видання

Методичні рекомендації
до проведення практичних занять та організації самостійної роботи
з навчальної дисципліни

«МЕТОДОЛОГІЯ НАУКОВИХ ДОСЛІДЖЕНЬ АРХІТЕКТУРНО-МІСТОБУДІВНИХ ОБ'ЄКТІВ»

(для здобувачів 1 курсу другого (магістерського) рівня вищої освіти денної форми навчання зі спеціальності 191 – Архітектура та містобудування)

(Англ. мовою)

Укладач **МАРТИШОВА** Лариса Сергіївна

Відповідальний за випуск *Г. Л. Коптєва*
За авторською редакцією
Комп'ютерне верстання *Л. С. Мартишова*

План 2024, поз. 166М

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Ум. друк. арк. 1,2.

Видавець і виготовлювач:
Харківський національний університет
міського господарства імені О. М. Бекетова
вул. Чорноглазівська (Маршала Бажанова), 17, Харків, 61002.
Електронна адреса: office@kname.edu
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