

REQUIREMENTS FOR A MASTER'S THESIS

Requirements for the research work of a master's student in the scientific and pedagogical magistracy:

- 1) corresponds to the profile of the master's degree program, according to which the master's thesis is being performed and defended;
- 2) relevant and contains scientific novelty and practical significance;
- 3) based on modern theoretical, methodological and technological achievements of science and practice;
- 4) performed using modern methods of scientific research;
- 5) contains research (methodological, practical) sections on the main protected provisions;
- 6) is based on the best international experience in the relevant field of knowledge.

Requirements for the experimental research work of a master's student in a specialized master's degree:

- 1) corresponds to the profile of the master's degree program, according to which the master's project is being implemented and defended;
- 2) it is based on modern achievements of science, technology and production and contains specific practical recommendations, independent solutions to management tasks;
- 3) performed using advanced information technology;
- 4) contains experimental research (methodological, practical) sections on the main protected provisions.

THE CONTENT OF THE MASTER'S THESIS/ MASTER'S PROJECT

The following provisions should be included in the content: substantiation of the relevance, theoretical and practical significance of the research topic; analysis of the state of the issue in the direction of research; setting the goal and specific objectives of the research; definition of the object and subject of research; selection of methodology and research methodology; description of the stages and process of research; formulation of conclusions and evaluation of the results; determination of validity, reliability and scientific novelty of the results obtained.

The content must meet the requirements that will be reflected in the design of the dissertation work in the sections

- 1) Introduction. Relevance of the research topic
- 2) Theoretical and practical significance of the topic of the dissertation
- 3) Literary review
- 4) The object of research and research methods
- 5) The results of our own research
- 6) Discussion and main conclusions of the study
- 7) References
- 8) Applications (if available)

A master's student who has submitted a master's thesis/project for defense is the author and bears full responsibility for its content.

The Master's thesis/project should contain the following structural elements:

- 1) The title page is the first page of the dissertation. (Appendix B). The page number is not placed on the title page.
- 2) An abstract is information about the volume of work, the number of tables, illustrations, appendices, the number of sections, the number of sources used, a list of keywords representing essential terms. The list of keywords should include from 15 to 20 words or phrases. Keywords

are given in the nominative case and are printed in lowercase letters in a line separated by commas. The text of the abstract reflects the object of research, the purpose of the work, the method or methodology of the work, the results obtained and the scope of application. The volume of the abstract should not exceed 1500 characters (about 1 typewritten page).

3) A list of abbreviations and designations. Designations and abbreviations are written in the order in which they are given in the text of the dissertation with the necessary transcription and explanations.

4) The content includes an introduction, the name of all sections, subsections, paragraphs (if they have a name), a conclusion, a list of sources used and the name of appendices indicating the page numbers from which these elements of the dissertation begin.

5) The introduction should contain an assessment of the current state of the scientific and technical problem being solved, the basis and initial data for the development of the topic, information about patent research and conclusions from them. The introduction should show the relevance and novelty of the topic of the dissertation.

6) The main part should contain:

a) the choice of the direction of research, including the justification of the direction of research, methods of solving problems and their comparative assessment, a description of the chosen general methodology of research;

b) the process of theoretical and (or) experimental research, including the definition of the nature and content of theoretical research, research methods, calculation methods, justification of the need for experimental work, principles of operation of the developed objects, their characteristics;

c) generalization and evaluation of research results, including an assessment of the completeness of the solution of the task and proposals for further areas of work, an assessment of the reliability of the results obtained.

7) The conclusion must contain:

- brief conclusions based on the results of the research of the dissertation work;

- assessment of the completeness of solutions to the tasks set;

8) List of sources used

9) The list should contain information about the sources used in the performance of the dissertation. Information about sources is provided in accordance with the requirements of GOST 7.1-2003 and GOST 7.0.100-2018.

RULES FOR THE DESIGN OF A DISSERTATION/PROJECT

The master's thesis / project must be completed on a computer on white A4 paper, size 14 in one and a half intervals with a letter height of at least 1.8 mm with margins: left - 30 mm, right - 10 mm, upper - 20 mm.

The volume of the master's thesis should be at least 60 pages. For a master's project, at least 40 pages. Hardcover of the dissertation.

Dissertation construction and page numbering

The names of the structural elements of the dissertation "Content", "Normative references", "Definitions", "Designations and abbreviations", "Introduction", "Conclusion", "List of sources used" serve as the headings of the structural elements of the dissertation.

The main part of the dissertation should be divided into sections, subsections and paragraphs. Items, if necessary, can be divided into sub-items.

When dividing the text of the dissertation into paragraphs and sub-paragraphs, it is necessary that each paragraph contains complete information.

Sections, subsections should have headings.

Items, as a rule, do not have headings.

Headings should clearly and briefly reflect the content of sections, subsections.

Headings of sections, subsections and paragraphs should be printed with paragraph indentation with a capital letter without a dot at the end, without underlining.

If the title consists of two sentences, they are separated by a dot.

The pages of the dissertation should be numbered in Arabic numerals, observing the end-to-end numbering throughout the text of the dissertation.

The page number is placed in the center of the lower part of the sheet without a dot.

The title page is included in the general page numbering.

The page number is not put down on the title page.

Illustrations and tables located on separate sheets are included in the general numbering of the dissertation pages.

Illustrations, tables on a sheet of A4 format are taken into account as one page.

Sections of the dissertation should have ordinal numbers within the entire work, indicated by Arabic numerals without a dot and written with paragraph indentation.

Subsections should be numbered within each section.

The subsection number consists of the section and subsection numbers separated by a dot.

There is no dot at the end of the subsection number.

Sections, as well as subsections, can consist of one or more items.

If the dissertation has no subsections, then the numbering of the paragraphs in it should be within each section, and the paragraph number should consist of the section and paragraph numbers separated by a dot. There is no dot at the end of the item number.

Example – Numbering of paragraphs of the first and second sections of the dissertation

1. Types and basic sizes

1.1

1.2

1.3

2. Technical requirements

2.1

2.2

2.3

If the dissertation has subsections, then the numbering of paragraphs should be within the subsection and the paragraph number should consist of the section, subsection and paragraph numbers separated by dots.

Example – Numbering of paragraphs of the first subsection of the third section of the dissertation

1. Test methods

3.1 Devices, materials and reagents

3.1.1

3.1.2

If a section consists of one subsection, then the subsection is not numbered. If a subsection consists of one item, then the item is not numbered. If the text is divided only into paragraphs, then they are numbered by ordinal numbers within the entire dissertation work. Paragraphs, if necessary, can be divided into sub-paragraphs, which should be numbered sequentially within each paragraph, for example: 4.2.1.1, 4.2.1.2, etc. Enumerations can be given inside paragraphs or sub-paragraphs. Before each enumeration, a hyphen should be placed or, if necessary, references in the text of the document to one of the enumerations, a

lowercase letter (with the exception of e, z, y, o, h, b, y, b), followed by a parenthesis. To further detail the enumerations, it is necessary to use Arabic numerals, after which a parenthesis is placed, and the entry is made with paragraph indentation, as shown in the example.

Пример

a) _____
б) _____
1) _____
2) _____
в) _____

If the dissertation work consists of two or more parts, each part must have its own serial number. The number of each part should be put down in Arabic numerals on the title page under the indication of the type of dissertation work, for example, "Part 2".

Each structural element of the dissertation should be started from a new sheet (page). The numbering of the pages of the dissertation and the appendices included in the dissertation should be end-to-end.

Design of illustrations

Illustrations (drawings, maps, graphs, diagrams, computer printouts, diagrams, photographs) should be placed in the dissertation immediately after the text in which they are mentioned for the first time or on the next page.

Illustrations can be computer-generated, including color. All illustrations should be referenced in the dissertation.

Drawings, graphs, diagrams, diagrams, illustrations placed in the dissertation must comply with the requirements of the state standards of the Unified System of Design Documentation (ESKD). It is allowed to execute drawings, graphs, diagrams, diagrams through the use of computer printing.

Photographs smaller than A4 size should be pasted on standard sheets of white paper. Illustrations, with the exception of illustrations of appendices, should be numbered with Arabic numerals through numbering.

If there is one drawing, then it is designated "Figure 1", the word "Drawing" and its name are placed in the middle of the line.

It is allowed to number illustrations within the section. In this case, the illustration number consists of the section number and the serial number of the illustration, separated by a dot. For example, "Figure 1.1" Illustrations, if necessary, may have a name and explanatory data (caption text). The word "Figure" and its name are placed after the explanatory data and arranged as follows: Figure 1 – Details of the device.

Illustrations of each application are designated by separate numbering in Arabic numerals with the addition of the application designation before the digit.

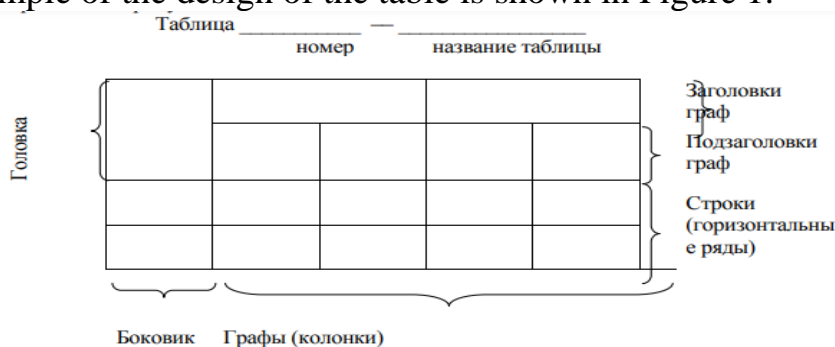
For example, Figure A.3 Illustrations are drawn up in accordance with Appendix G. When referring to illustrations, write "... in accordance with Figure 2" with through numbering and "... in accordance with Figure 1.2" when numbering within the section.

Design of tables

Tables are used for better visibility and convenience of comparing indicators. The name of the table should reflect its content, be precise, concise. The name of the table should be placed above the table on the left, without paragraph indentation in one line with its number separated by a dash. When transferring a part of the table, the name is placed only above the first part of the table, the lower horizontal line bounding the table is not drawn. The table should be placed in the dissertation immediately after the text in which it is mentioned for

the first time, or on the next page. All tables should be referenced in the dissertation. When linking, you should write the word "table" with its number. A table with a large number of rows can be moved to another sheet (page). When transferring a part of the table to another sheet (page), the word "Table" and its number are indicated once to the left above the first part of the table, the word "Continuation" is written above the other parts and the table number is indicated, for example: "Continuation of table 1". When transferring a table to another sheet (page), the title is placed only above its first part. A table with a large number of graphs can be divided into parts and put one part under another within one page. If the rows and columns of the table go beyond the page format, then in the first case, the head is repeated in each part of the table, in the second case — the sidewall. If the text repeated in different rows of the table column consists of one word, then it can be replaced with quotation marks after the first writing; if it consists of two or more words, then at the first repetition it is replaced with the words "The same", and then with quotation marks. It is not allowed to put quotation marks instead of repeating numbers, stamps, signs, mathematical and chemical symbols. If digital or other data is not given in any row of the table, then a dash is put in it. Digital material, as a rule, is made out in the form of tables.

An example of the design of the table is shown in Figure 1.



Tables, with the exception of annex tables, should be numbered with Arabic numerals through numbering. It is allowed to number tables within a section. In this case, the table number consists of the section number and the ordinal number of the table, separated by a dot.

The tables of each application are designated by a separate numbering in Arabic numerals with the addition of the application designation before the digit. If there is one table in the document, then it should be designated "Table 1" or "Table B.1" if it is given in the appendix.

The headings of the graph and table rows should be written with a capital letter in the singular, and the subheadings of the graph should be written with a lowercase letter if they make up one sentence with the title, or with a capital letter if they have an independent meaning.

There are no dots at the end of the headings and subheadings of the tables.

Tables on the left, right and bottom are usually bounded by lines. It is allowed to use a font size smaller in the table than in the text.

It is not allowed to separate the titles and subheadings of the sidewall and the graph with diagonal lines. Horizontal and vertical lines delimiting the rows of the table are not allowed to be drawn if their absence does not complicate the use of the table.

Graph headers, as a rule, are written in parallel to the rows of the table. If necessary, the perpendicular arrangement of the graph headers is allowed.

The head of the table should be separated by a line from the rest of the table.

Design of notes, formulas, equations, references, a list of definitions, designations and

abbreviations, a list of used sources and appendices

The word "Note" should be capitalized from the paragraph and not underlined. Notes are given in the dissertation if explanations or reference data are needed to the content of the text, tables or graphic material.

The notes should not contain requirements.

The notes should be placed directly after the text, graphic material or in the table to which these notes relate. If there is only one note, then a dash is placed after the word "Note" and the note is printed with a capital letter.

One note is not numbered.

Several notes are numbered in order in Arabic numerals without putting a dot. A note to the table is placed at the end of the table above the line indicating the end of the table.

Several notes are numbered in Arabic numerals in order.

Example

Notes

1. Subscript labels are not printed;
2. Documents are notarized;
3. Approves the head of the organization

Formulas and equations should be separated from the text in a separate line. At least one free line must be left above and below each formula or equation. If the equation does not fit in one line, then it must be moved after the equal sign (=) or after the plus (+), minus (-), multiplication (*), division (\square), or other mathematical signs, and the sign at the beginning of the next line is repeated. When transferring the formula on the sign symbolizing the multiplication operation, the sign "x" is used. The explanation of the values of symbols and numerical coefficients should be given directly under the formula in the same sequence in which they are given in the formula. Formulas in the dissertation work should be numbered by ordinal numbering within the entire dissertation in Arabic numerals in parentheses in the rightmost position on the line. If the design of the explanatory note is carried out in the MS Word text editor, then for a set of formulas it is necessary to use the Microsoft Equation or Math Type formula editors.

Пример

$$\frac{d^2y}{dt^2} + a_1(t)\frac{dy}{dt} + a_2(t)y = \sqrt{2} \sin \pi t + \sqrt{\frac{5}{2}} \cos 3\pi t, \quad (1)$$

$$E = \frac{mv^2}{2} + mgh. \quad (2)$$

One formula is denoted – (1) Formulas placed in appendices should be numbered separately in Arabic numerals within each appendix with the addition of an appendix designation before each digit, for example, formula (B.1). References in the text to the ordinal numbers of formulas are given in parentheses.

Example - ... in formula (1). Numbering of formulas within the section is allowed. In this case, the formula number consists of the section number and the ordinal number of the formula separated by a dot, for example (3.1). The order of presentation of mathematical equations in the dissertation is the same as the formulas.

In the dissertation, it is allowed to perform formulas and equations in a handwritten way in black ink. References to the Instructions for the preparation of the dissertation and the abstract, standards, technical specifications and other documents are allowed in the

dissertation, provided that they fully and unambiguously define the relevant requirements and do not cause difficulties in using the document.

Reference should be made to the document as a whole or its sections and appendices. References to subsections, paragraphs, tables and illustrations are not allowed, with the exception of subsections, paragraphs, tables and illustrations of this Manual.

When referring to standards and technical specifications, only their designation is indicated, while it is allowed not to indicate the year of their approval, provided that the standard is fully described in the list of sources used.

References to the sources used should be given in square brackets. In case of repeated reference to the same source, the corresponding page is placed in square brackets in addition to the ordinal number of the source.

The list of definitions, designations and abbreviations, symbols, symbols, units of physical quantities and terms should be arranged in a column.

Abbreviations, symbols, symbols, units of physical quantities and terms are given on the left in the order of mention or in alphabetical order, on the right – their detailed interpretation.

Information about sources should be arranged in the order in which references to sources appear in the text of the dissertation and numbered in Arabic numerals without a dot and printed with paragraph indentation.

Appendices are issued as a continuation of this dissertation on its subsequent pages or are issued as an independent document.

In the text of the dissertation, all applications should be referenced. Appendices are arranged in the order of references to them in the text of the dissertation.

Each application should start from a new page with the word "Application", its designation and degree indicated at the top in the middle of the page. The application must have a title that is written symmetrically relative to the text with a capital letter in a separate line. Applications are designated by capital letters of the Russian alphabet, starting with A, with the exception of the letters E, З, И, О, H, Б, Y, В. After the word "Application" follows a letter denoting its sequence. It is allowed to designate applications with letters of the Latin alphabet, with the exception of the letters I, O.

In case of full use of the letters of the Russian and Latin alphabets, it is allowed to designate applications with Arabic numerals. If there is one appendix in the document, it is designated "Appendix A". The text of each appendix, if necessary, can be divided into sections, subsections, paragraphs, sub-paragraphs, which are numbered within each appendix. The number is preceded by the designation of this application.

Appendices should have a cross-cutting page numbering in common with the rest of the dissertation.

An example of the design of the title page of the abstract of a master's thesis and the structure of the annotation

MEDICAL UNIVERSITY"

ANNOTATION MASTER'S THESIS

Topic name:

Educational program "code and name of the educational program"

Group of educational programs:

Full name of the undergraduate

Supervisor: (academic degree)

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Annotation structure

1. Relevance of the study:

Substantiate the relevance of the research topic. References to sources in square brackets [1].

The volume is not more than 1 printed sheet.

2. The hypothesis of the study.

3. The purpose of the study:

Formulate the purpose of the study.

4. Research objectives:

List the research tasks.

5. Materials and methods of research:

The section "Materials and methods" should clearly and clearly describe the organization of this research (design).

A research question on the PICOT structure.

(PICOT for case-control, cohort, experimental designs).

The variant of the study is indicated: cross-sectional (one-stage), cohort study, case-control study, prospective, retrospective, ecological (correlation), experimental, etc.

The principles of group formation, inclusion and exclusion criteria, planned/applied sample sizes should be described.

It is mandatory to mention the presence or absence of randomization (indicating the methodology) when distributing the subjects into groups.

It is necessary to specify the laboratory and instrumental methods that will be used / used when performing the study.

It is necessary to specify the main technical characteristics and the manufacturer of the equipment, diagnostic equipment.

It is necessary to indicate the names of the laboratories in which the research will be conducted/conducted.

It is necessary to indicate the names of medical and preventive and other institutions on the basis of which research will be conducted/ conducted.

It is necessary to specify the statistical methods that are planned to be used / used in the processing of the material.

6. Main results of the study (for the conducted study)

what results were obtained based on the results of the dissertation research

7. Scientific novelty of the research:

Briefly describe the scientific novelty of the results obtained.

8. Theoretical and practical significance:

Possible areas of application: List where, in which areas of theoretical, clinical medicine, healthcare, the results of your research can be applied.

9. Forms of implementation:

- publications, presentations at international conferences, author's certificates, patents, methodological recommendations, educational and teaching aids, introduction into the educational process, introduction of new methods of medical and diagnostic care, etc.

10. Links to information sources

The ratio of foreign and domestic is 50-50%. Links to primary original publications from international peer-reviewed publications. From secondary, preferably for systematic reviews and meta-analyses on the research topic.

There should be no links to textbooks, manuals, conference abstracts!.

example:

1. Verdonschot A, de Vet E, van Seeters N, Warmer J, Collins CE, Bucher T, Haveman-Nies A. Caregivers' Role in the Effectiveness of Two Dutch School-Based Nutrition Education Programmes for Children Aged 7-12 Years Old. *Nutrients*. 2021 Jan 1;13(1):140. doi: 10.3390/nu13010140. PMID: 33401470; PMCID: PMC7824262.

2. Morgan EH, Schoonees A, Sriram U, Faure M, Seguin-Fowler RA. Caregiver involvement in interventions for improving children's dietary intake and physical activity behaviors. *Cochrane Database Syst Rev*. 2020 Jan 5;1(1):CD012547. doi: 10.1002/14651858.CD012547.pub2. PMID: 31902132; PMCID: PMC6956675.

Requirements for the design of the annotation

A4 Size, Font 12 Times New Roman. The interval is single.

Text alignment by field.

The margins are normal: upper and lower 2 cm, left 3 cm, right 1.5 cm.

Example of the title page of a master's thesis

MINISTRY OF EDUCATION AND SCIENCE
OF THE REPUBLIC OF KAZAKHSTAN
MINISTRY OF HEALTH OF THE REPUBLIC OF KAZAKHSTAN
NJSC "WEST KAZAKHSTAN MARAT OSPANOV
MEDICAL UNIVERSITY"

UDC
MRNTI

On the rights of the manuscript

FULL NAME OF THE MASTER'S STUDENT

Master's thesis
TOPIC NAME

according to the educational program "code and name of the educational program"

Scientific supervisor (academic degree, title)

Aktobe 20_

Rules for the design of the list of used sources

View

Description form

**Journal
articles**

Author. Article / Authors // Journal. – Year. – Number. – Article placement pages. If more than 4 people worked on the article, then one

of them is not mentioned in the title.

Author. Title. / Authors – Number. – City and publishing house, year of issue. – The pages where the work is posted.

Monographs

It is allowed not to use dashes in the design of this description, but to use only dots to separate individual parts.

If the works of other authors were used when writing, then they can be mentioned in the general enumeration, or added in square brackets as a separate part.

Abstracts

Author. Title of the work: (author's regalia). – City, year of publication. – Number of pages.

Dissertations

Author. Title: (after the colon, you can specify the status of the work and the regalia of the author). – City, year of publishing. – The pages on which the work is posted or the total number of pages.

**Reviews
(analytics)**

Title / Author. – City: Publishing house, year of issue. – Number of pages.

RF patent Number, date of issue

Patents

Authors. Title // Russian Patent Number, year. The number of the bulletin.

**Conference
materials**

Title. Conference topic, City, year of graduation. Number of pages.

Author. Title // Topic of the conference (Venue and date) – City, year of issue. – The pages on which the work is printed, or their number.

**Online
documents**

URL, date of access to the resource.

Title of the work / Author. URL (date of reference).

Textbooks

Author. Title / Authors. – City: Publishing house, year of issue. – Number of pages.

With the authorship of 4 or more people, the design is made similarly to magazine articles.

**Training
manuals**

Title / (Authors of works) // Editor. – City: Publishing house, year of issue. – Number of pages.

Dictionaries

Author. Title / Authors. – City: Publishing house, year of issue. – Number of pages.

Example : List of used sources

1. Tulegenova G.S. Biology of transplanted tumors. – Almaty: Nauka, 2003. – 216 p.
2. Efimov M.L., Askarova G.S. Daily biological rhythms and malignant growth //Usp. Sovr. Biology. - 2003. – Vol. 103, No. 2- - p. 255- 270.
3. Pat. 72931 USSR. Method of processing raw materials /Ivanov M.I., Maldybaev N.K.; publ. 30.03.83, Bul. No. 12. – 2 s: ill.
4. A.S. 386018. USSR. Method of extraction of metals. / A.G. Akataev, B.I. Petrov; ogtubl 17.05.81, Bul. No. 15. -2c: il.

5. Georgieva R.S. Changes in the blood coagulation system in patients with malignant tumors //Questions of the expert. And Klin, oncol.: collection of scientific Tr. of the Institute of Oncology and Radiology.- Almaty, 2004. – pp.214-217.
6. Bazhenov L.G., Kulinskaya L.L., Sorochinskaya I.N. Seasonal changes in the content of immunoglobulins in the blood of clinically healthy individuals. //Theses of doct. III Vses. Conf. According to chronobiol. And a chronomedist. – Tashkent, 1990.-320 p.
7. Sadykov L.P., Berezovskaya I.V. Seasonal changes in blood clotting indices in rats and rabbits. /Institute of Veterinary Medicine. – M., 1989. – 230s. – Dep. In VINITI 13.09.89, No. 5853 – In 89.
8. Study of kinetics and chemistry of processes: research report /ImiO AN Kaz SSR. – Almaty, 1985. – 240 p. – Inv. No. 81047478.
9. Omarova G.P. Experimental therapy of T-1 sarcoma depending on its mitotic activity: abstract. ... cand. Biol. Sciences:.04.03.04. –Moscow: MSU, 2004. - 16 p.
10. Vachaspati T., Videnkin A. Evolution of cosmic nets //Psych. Rev. -2003. – Vo1. 46, No. 2. – p. 1133-1140.
11. Paustovsky K.G. Golden rose //Soc.: In 7 vols. – M., 1984. – Vol. 3. – pp.287- 528.
12. GOST R 51771 – 2001. Electronic household equipment. Input and output parameters and connection types. Technical requirements. – Introduction. 2002-01- 01. – M: Gosstandart of Russia: Publishing House of Standards, 2001. – IV, 27 s: ill.