



MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION  
Federal state autonomous educational institution  
of higher education  
«Far Eastern Federal University»  
(FEFU)

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**SCHOOL OF BIOMEDICINE**

«AGREED»

Head of education program  
«General medicine»

Khotimchenko Yu.S.

(signature)

(Full name)

«09» of July 2019

«APPROVED»

Director of the Department of Clinical  
Medicine

Geltser B.I.

(signature)

(Full name)

«09» of July 2019



**WORKING PROGRAM OF PRACTICAL TRAINING (WPPT)**  
**Научно-исследовательская работа (Research)**  
Education program  
Specialty 31.05.01 «General medicine»  
**Form of study: full time**

Vladivostok

2019

## ABSTRACT

Производственная практика «**Научно-исследовательская работа (Research)**» is intended for students enrolled in the educational program 31.05.01 "General Medicine". Discipline is implemented in 6<sup>th</sup> course in the A and B semesters, as a basic discipline. The total complexity of the discipline is 216 hours, 3 credits.

In developing the work program of the practical training there were used: the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" (level of specialization) from 09.02.2016 №95, student training curriculum, regulations on the procedure for the practice of students studying at the Federal State Autonomous Educational Institution of Higher Professional Education "Far Eastern Federal University" in higher education programs (for undergraduate programs, specialties, graduate programs), approved by order of October 23, 2015, regulations on the funds of evaluation tools of educational programs of higher education - undergraduate programs, specialties, magistracies of FEFU, approved by the order of the rector of 12.05.2015 No. 12-13-850.

**Purpose of the Professional Research Practice:** mastering special knowledge for the development of scientific outlook among students simultaneously with the development of the clinical logic thinking necessary for implementation in primary health care, including early diagnosis of the most common chronic non-infectious diseases, primary and secondary prevention of major chronic non-infectious diseases, and disability expertise , and other practical skills necessary for the subsequent practical activities of the doctor.

**Objectives of the Professional Research Practice:**

- consolidation and development of professional theoretical knowledge obtained in the study of disciplines provided by the curriculum in the direction of study 31.05.01. – General medicine;

- mastering the necessary professional research competences in the field of training;
  - the formation of the skills of studying and analyzing scientific literature, statistical collections and regulations;
  - the mastery of individual methods of research relevant to the topic of the research work being carried out;
  - obtaining skills of independent recruitment of factual material on the subject of scientific research;
  - improvement of existing skills and skills of independent research activities;
  - the use of the research results in working practice;
  - the formation of student skills in the team;
  - improvement of the personality of the future graduate in the field of study
- 31.05.01. – General medicine.

Because of studying the discipline, the students form following special professional competences:

Code and formulation of competence.	Stages of formation of competence	
PC-20 - the readiness to analysis and public presentation of medical information based on evidence-based medicine	Knows	basic and special basics of natural science and professional knowledge for solving applied problems; principles of evidence-based medicine.
	Able to	conduct a search of theoretical, scientific information; present materials of their own research; study independently and continuously improve their qualifications throughout the entire period of professional activity.
	Possesses	ways of obtaining professional knowledge from original sources, incl. electronic; skills of writing a scientific text, skills of scientific public speaking and conducting scientific discussions.
PC-21 - the ability to participate in researches	Knows	Methods of studying scientific, medical and paramedical information.
	Able to	work effectively individually and in a group, be responsible for the results of the work; analyze domestic and foreign experience on research topics.
	Possesses	opportunity to plan a scientific work, to organize the search of the necessary

		information to choose the best methods of investigation, to conduct a study on research and development.
PC-22 - the willingness to participate in implementation of new methods and techniques aimed at protection of public health	Knows	basic principles of organization and management in the field of public health, in medical organizations and their structural divisions.
	Able to	apply the basic principles of organization and management in the field of public health, in medical organizations and their structural divisions;
	Possesses	<b>Skills</b> of organization and management in the field of public health, in medical organizations and their structural divisions.

Jobs for people with disabilities are equipped with:

- Braille displays and printers;
- portable devices for reading flat-print texts, scanning and reading machines with a video enlarger with the ability to adjust color spectra;
- magnifying electronic loops and ultrasonic markers.

## STRUCTURE AND CONTENT OF PRACTICAL PART OF THE PRACTICE

Sections (stages) of practice	Types of practical work in practice, including independent work of students	Workload (hours)	Forms of current control
Preparatory	Safety instructions. Distribution to working places.	2	Teacher control
Main	- Conducting literary information search, compiling a list of references on the problem of research, designed in accordance with STST;	26	Teacher control
	- Work with literature, regulations, other sources of information on the topic of research work (including the selection of sources, their study and critical analysis);	22	
	-Participation in preparation of the plan, organization and conduct of scientific research on the topic;	12	
	- Participation in selection of current methods and research approaches that meet the goals and objectives of the study;	18	
	- Independent collection of	40	

	<p>research material using general clinical and special research methods in accordance with the theme of the student's research work;</p> <ul style="list-style-type: none"> <li>- Definition of methods for mathematical processing of the results: criteria for the selection of non-parametric and parametric methods of statistical processing;</li> <li>- Systematization and analysis of primary data obtained in the course of the study using statistical methods</li> <li>- Analysis and description of the results obtained in the course of the study based on statistics, literature data, legal aspects of regulation;</li> <li>- Preparation and execution of research materials for publication (presentation)</li> </ul>	14	
		18	
		30	
		18	
Final stage	- Preparation and execution of a report on practical training "Scientific research studies" in the approved form. Interview.	16	Teacher control and grade
Total		216	

## **LIST OF EDUCATIONAL LITERATURE AND INFORMATIONAL-METHODICAL REQUIREMENTS FOR THE DISCIPLINE**

### **a) Main literature**

1. 1. What Every Medical Writer Needs to Know [Electronic resource] / Robert B. Taylor // [Springer International Publishing](http://link.springer.com/openurl?genre=book&isbn=978-3-319-20264-8), 2015.- 237p.// <http://link.springer.com/openurl?genre=book&isbn=978-3-319-20264-8>
2. Mindful Medical Practice [Electronic resource] / Patricia Lynn Dobkin // [Springer International Publishing](https://link.springer.com/book/10.1007%2F978-3-319-15777-1), 2015. – 169p. <https://link.springer.com/book/10.1007%2F978-3-319-15777-1>
3. Handbook of Clinical Psychology in Medical Settings [Electronic resource] / Christine M. Hunter, Christopher L. Hunter, Rodger Kessler / [Springer New York](https://link.springer.com/book/10.1007%2F978-0-387-09817-3), 2014.- 772p. / <https://link.springer.com/book/10.1007%2F978-0-387-09817-3>

4. Strategic Scientific and Medical Writing [Electronic resource] / Pieter H. Joubert, Silvia M. Rogers // [Springer Berlin Heidelberg](https://link.springer.com/book/10.1007%2F978-3-662-48316-9), 2015/- 147 p. / <https://link.springer.com/book/10.1007%2F978-3-662-48316-9>

## LIST OF INFORMATION TECHNOLOGIES AND SOFTWARE

<b>The location of the computer equipment on which the software is installed, the number of jobs</b>	<b>List of licensed software</b>
Multimedia auditorium Vladivostok Russian island, Ayaks 10, building 25.1, RM. M723 Area of 80.3 m2 (Room for independent work)	Windows Seven enterprise SP3x64 Operating System Microsoft Office Professional Plus 2010 office suite that includes software for working with various types of documents (texts, spreadsheets, databases, etc.); 7Zip 9.20 - free file archiver with a high degree of data compression; ABBYY FineReader 11 - a program for optical character recognition; Adobe Acrobat XI Pro 11.0.00 - software package for creating and viewing electronic publications in PDF; WinDjView 2.0.2 - a program for recognizing and viewing files with the same format DJV and DjVu.

For persons with disabilities and people with disabilities, the choice of places of practice is consistent with the requirement of their accessibility for these students and the practice is carried out taking into account the characteristics of their psychophysical development, individual abilities and health status.

## LOGISTICS OF PRACTICAL TRAINING

1. For practical work, as well as for the organization of independent work, students have access to the following laboratory equipment and specialized classrooms that meet the current sanitary and fire regulations, as well as safety requirements during training and scientific and industrial works:

<b>Name of the equipped rooms and rooms for independent work</b>	<b>List of main equipment</b>
Computer class of the School of Biomedicine aud. M723, 15 jobs	Screen with an electric drive 236 * 147 cm Trim Screen Line; DLP Projector, 3000 ANSI Lm, WXGA 1280x800, 2000: 1 EW330U Mitsubishi; The subsystem of specialized fixing equipment CORSA-2007 Tuarex; Video switching subsystem: DVI DXP 44 DVI Pro Extron matrix switcher; DVI extension cable for twisted pair DVI 201 Tx / Rx Extron; Audio switching

	<p>and sound reinforcement subsystem; ceiling speaker system SI 3CT LP Extron; DMP 44 LC Extron digital audio processor; extension for the control controller IPL T CR48; Wireless LANs for students are provided with a system based on 802.11a / b / g / n access points 2x2 MIMO (2SS).</p> <p>Monoblock HP RgoOpe 400 All-in-One 19.5 (1600x900), Core i3-4150T, 4GB DDR3-1600 (1x4GB), 1TB HDD 7200 SATA, DVD +/- RW, GigEth, Wi-Fi, BT, usb kbd / mse, Win7Pro (64-bit) + Win8.1Pro (64-bit), 1-1-1 Wty</p>
<p>690922, Primorsky Krai, Vladivostok, Russky Island, Saperny Peninsula, Ajax Village, 10, aud. M 422</p> <p>Multimedia audience</p>	<p>Multimedia audience:</p> <p>Monoblock HP ProOne 400 G1 AiO 19.5 "Intel Core i3-4130T 4GB DDR3-1600 SODIMM (1x4GB) 500GB; Projection Screen Projecta Elpro Electrol, 300x173 cm; Multimedia Projector, 4000 Mitsubishi FD630U, 4000 ANSI Lumen, 1920x1080; Embedding, 4000 Embedded Mitsubishi FD630U, 4000 ANSI Lumen, 1920x1080; Embedded, Embedded, Mitsubishi FD630U, 4000 ANSI Lumen, 1920x1080; Embedded, Embedded, Mitsubishi FD630U, 4000 ANSI Lumen, 1920x1080; Embedded; TLS TAM 201 Stan cables; Avervision CP355AF Document Camera; Sennheiser EW 122 G3 Microphone UHF-band microphone system as part of a wireless microphone and receiver; LifeSizeExpress 220-Codeconly-Non-AES video conferencing codec; Multipix MP-HD718 Network Video Camera; Dual LCD Panels 47 ", Full HD, LG M4716CCBA; Audio switching and sound reinforcement subsystem; central uninterrupted power supply</p>
<p>Reading rooms of the FEFU Scientific Library with open access to the Foundation (Building A - Level 10)</p>	<p>Monoblock HP RgoOpe 400 All-in-One 19.5 (1600x900), Core i3-4150T, 4GB DDR3-1600 (1x4GB), 1TB HDD 7200 SATA, DVD +/- RW, GigEth, Wi-Fi, BT, usb kbd / mse, Win7Pro (64-bit) + Win8.1Pro (64-bit), 1-1-1 Wty Internet access speed 500 Mbit / s. Jobs for people with disabilities are equipped with braille displays and printers; equipped with: portable devices for reading flat-print texts, scanning and reading machines with a video optimizer with adjustable color spectra; magnifying electronic loops and ultrasonic markers</p>
<p>Accreditation and Simulation Center of the School of Biomedicine</p> <p>690922, Primorsky Krai, Vladivostok, Russky Island, Saperny Peninsula, Ajax Village, 10, aud. M 508a, 510</p>	<p>Medical couch (1 pc.)</p> <p>Simulator for auscultation with an interactive board (1 pc.)</p> <p>Dummy for testing SLS and auscultation (1 pc.)</p> <p>Sam II (1 pc.)</p> <p>Tonometer (2 pcs.)</p> <p>Simulator for auscultation (1 pc.)</p> <p>Spirometer portable (1 pc.)</p> <p>Electrocardiograph (1 pc.)</p> <p>Spirograph (1 pc.)</p> <p>Tonometer (2 pcs.)</p> <p>Set with dotted electrodes for recording EEG in the system 10-20 "MCScap-26" (1 pc.)</p> <p>Medical couch (2 pcs.)</p>

## Guidelines on preparation and holding of practice

1. Practical training is carried out on the main clinical bases.
2. Department staff supervises and work experience.
3. The practical training begins with conducting of seminars in the direction of the practice, ending exam.
4. Diary is the main obligatory document of practical training.
5. During the practical training the students of 3 course in the direction of training "General Medicine" 31.05.01 learn universal and professional competence.
6. The head of the practice is the assistant of the department responsible for carrying out work experience, the responsible worker for carrying out practical training on the clinical base is appointed by head of the medical organization (a nurse, a senior nurse, chief nurse).





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**SCHOOL OF BIOMEDICINE**

**WORKING PROGRAM OF ON-THE-JOB PRACTICE**  
**Independent work**  
**Научно-исследовательская работа (Research)**  
Education program  
Specialty 31.05.01 «General medicine»  
**Form of study: full time**

**Vladivostok**  
**2017**

## **Methodological recommendations for preparation and performance of a practical training**

### **Guidelines for the studying of the module:**

#### **List of references**

STST R 7.0.5-2008. System of standards for information, librarianship and publishing. Bibliography link. General requirements and drafting rules

Methods of the material location in the list of references: alphabetic, systematic and in order of mention in the text.

#### **Rules of the scientific publication writing**

Scientific publication is one of the main results of researcher. The main goal of publication is to make the work of the author available to other researchers and to designate his priority in the chosen field of research. In order to clearly navigate the variety of types of publications and choose the right one, you need to know the typology of scientific publications. According to STST 7.60–2003 “SIBID. Editions. The main types. Terms and definitions” there are several options for the textual presentation of scientific results:

A monograph is a scientific or popular science publication containing a complete and comprehensive study of one problem or topic and belonging to one or several authors.

Collection of scientific papers - a set containing research materials of scientific institutions, educational institutions or societies.

Conference materials (congress, symposium) - a non-periodical collection containing the results of the conference (reports, recommendations, decisions).

A preprint is a scientific publication containing materials of a preliminary nature, published prior to the publication of a publication in which they can be placed.

Abstracts of reports / messages of a scientific conference (congress, symposium) are a scientific non-periodical collection containing preliminary materials published before the conference (abstracts, abstracts of reports and (or)

messages). Often, abstracts with a volume of 1–2 pages of text are not counted as publications at all. Of greatest interest to researchers are scientific articles in scientific peer-reviewed journals and proceedings (or materials) of conferences.

A scientific article is a complete and logically complete work covering a topic that is part of the problems associated with the topic of the thesis.

A scientific journal is a journal containing articles and materials on theoretical studies, as well as articles and materials of an applied nature intended for researchers.

As a rule, scientific articles are presented in several varieties: a brief report on the research work results; actual scientific article, in which the results of the work are presented in sufficient details; historical and scientific review article; discussion article; advertising article.

### **Scientific style of presentation**

The scientific style is characterized by the use of special scientific terms and definitions, and recently international terminology has been increasingly used. Also in scientific works it is customary to use abstract vocabulary as compared with concrete (for example, abstract vocabulary is when no concrete image is associated with a given word in consciousness: genius, substance, phenomenon, matter, feeling, movement, substance, etc., and specific vocabulary - these are words that are associated with figurative ideas about real-life material objects, for example, a cat, a glass, a bird or about the properties and manifestations of material objects perceived by the senses, for example, green, hot, etc.). The lexical composition of the scientific style is characterized by relative homogeneity and isolation, and this is expressed, in particular, in less use of synonyms. The volume of text in the scientific style increases not so much due to the use of different words, but rather due to the repeated repetition of the same. In the scientific style there should not be present vocabulary with colloquial coloration, which is not peculiar evaluative. Evaluation in scientific papers is used to clarify the author's thoughts of attracting attention and is rational in nature. Scientific speech is distinguished by the accuracy and logic of thought, its consistent presentation and

objectivity of presentation. In order to make the logical structure of the article more visual, you can use various introductory words and phrases: first, second, third, besides, finally, at the same time, therefore, thus summing up, in conclusion, so, therefore, etc. However, it is not necessary to begin each sentence with introductory words. Also, in order to make a logical presentation of the material in scientific speech, it is recommended to use complex union sentences, introductory words and phrases, implications and additional participles, common definitions, etc. The scientific style is characterized by informational saturation of the sentence, for example: "Individualization is a dynamic process that consistently includes a conscious refusal to follow the norm - isolation, or deobjectification, comprehension - appeal to individually or deobjectivation, reflection - appeal to individual unassigned knowledge, or intuition and, finally, the designation of the image with the purpose of its transmission, inclusion in social knowledge - exteriorization, that is, if in the preschool age an individual first experience signifying a social value, then a teenager, on the contrary, social experience is related to the individual sense. Thus, in adolescence, the personifying activity associated with modeling, playing back many scenarios of future adult life against the background of individualization becomes the dominant form of activity." Texts using the scientific style are characterized by the author's detachment, the objectivity of the information presented. This is expressed in the use of generalized-personal and impersonal constructions instead of the first person: there is reason to believe, it is believed, it is known, presumably, it can be said, it should be emphasized, one should pay attention, etc. Also, scientific texts may contain various formulas, diagrams, symbols, tables, etc. Almost any scientific text may contain graphic information - this is one of the features of the scientific style of speech.

### **Use of terms**

The author should strive to be clearly understood. To do this, it needs to follow certain rules:

- use only the most clear and unambiguous terms;

- not to use a word that has two meanings, without defining in which of them it will be applied;

- Do not use one word in two meanings and different words in one meaning.

Foreign language terms should not be abused. As a rule, they are not synonymous with native words, there are usually semantic shades between them. Foreign language terms should not be abused. As a rule, they are not synonymous with native words, there are usually semantic shades between them.

### **Rules for abbreviations of words and phrases**

The use of abbreviated phrases is governed by STST 7.12-93 "Bibliographic record. Abbreviation of words in Russian."

The basic principle used in the abbreviation of words - abbreviations should not contradict the purpose (reading and social-functional) of the work. Thus, in the scientific and reference literature, with repeated use of the source word or phrases, abbreviations of words are even advisable, since they are intended for a specialist reader

When shortening words, it is necessary to observe 1) uniformity of abbreviation forms and 2) rules for writing abbreviated words and phrases.

Thus, when shortening words by truncating the end part of a word, the rest of the word should:

1) allow to correctly restore the complete word; eg: filos., filol., but not: fil.;

2) end with a consonant (excluding single letter abbreviations); eg: arch.; not: archite .;

3) with concatenation at the end of two identical consonants to end at one of them; eg: il.; rather than: ill .; but as an exception: Ott .;

4) with concatenation at the end of several different consonants, end at the last one; eg: geogr.; rather than: geog.

When the plural number of abbreviated words change form in the pl. should include:

1) single letter abbreviations are doubled, for example: in 1976-1980, XIX - XX centuries; pp 1, 5 and 6. But for the bibliographic description, where volumes

and sheets were once written in the form of vol. regardless of the number;

2) abbreviations with a hyphen, replacing the middle part of the word; eg: p-t, p-ts; n-ty, n-ties;

But there is a need to pay attention to the fact that they do not change the form in the plural:

1) abbreviations of the words volume, sheets, pages, columns, adopted in the bibliographic description: p. 1-10, 10 fig., 250 p., 1040 clm.;

2) all non-single-letter graphic abbreviations with a dot at the end: in the t. 10 and 11; on fig. 85, 91 and 101; in the Kaluga, Oryol and Tula reg.

It is not recommended in non-reference editions to use abbreviations, etc., etc., etc., in the middle of a phrase, if the word followed by the abbreviation follows.

All abbreviations, except see and comp., are used only in combination with numbers or letters; ex.: in ch. 22, in sub. 5a; according to clause 10; in section one; according to Sec. A; on fig. 8, in t. 2, p. 8–9. Instead of abbreviation p. (page), it is recommended to use abbreviation p., since it is fixed by STST 7.12-93, and two forms of abbreviation of one word violate the principle of uniformity. Million, billion, thousand is recommended to be used instead of zeros in round numbers; eg: 45 million copies; 10 billion p.; 10 thousand copies The abbreviation of phrases is not allowed: “so-called” (s.-c.), “at though” (a.t.), “for example” (eg.), “about” (approx.), “formula” (f-la ).

### **Requirements for the author text originals**

In the process of preparing a manuscript for publication, the author must adhere to the rules for manuscript design adopted in the same edition of the journal (or publishing house) in which its publication is intended. According to STST 7-89-2005 "Original test copyright and publishing," the text should be executed in compliance with the following rules:

- paragraphs are separated from each other by a single paragraph end marker (it is not allowed to separate paragraphs by points);
- all words within a paragraph are separated by only one space;

- there are no spaces before the punctuation mark, one space after the punctuation mark;

- a space should be left between the last digit of the number and the unit designation (352 MPa, 30 °C, 10 %)

- when typing, the dash (–) (Alt + 0150 or Ctrl + Num-) and hyphens (-) must be different;

- italics, bold, upper case are provided with Word.

Not allowed:

- underline text fragments as selections;

- autonumbering (numbered and bulleted) in chapters and paragraphs.

Everything is typed by hand.

- manual hyphenation.

When typing, you need to set automatic word wrap (Service → Language → Hyphenation → Automatic) and text alignment in width and prohibit hanging lines (Format → Paragraph → Indents and spacing and further, respectively, Position on page).

According to STST 7-89-2005, the tables should be placed in the text after the paragraph, in which the reference to them was first given. It is allowed to place the tables on the next page after the link. Notes and footnotes to the tables should be placed directly under the table. At first references must be given, and then notes. Footnotes to the numbers in the table are denoted as asterisks (\*).

The link should organically enter the text, and not stand out in an independent phrase that repeats the thematic title of the table. The link is given in abbreviated form: (Table 1) or according to the text “In Table. 1.3 are presented ...”

The word "table" and its ordering number (in arabic numerals) are placed above the heading in the upper right corner, making it in italic, bold or discharged. The name is placed on the next line in the center. If there is only one table in the text, then a number is not assigned to it, the word “table” is not written. All columns in the table should be entitled. The lines of each header are centered,

avoiding hyphenation and abbreviations.

When moving the table to the next page, the header is not repeated. In this case, the columns are numbered and their numbering is repeated on the next page, and instead of the subject heading they write "Continued table. 1.3 ". If the table continues on three or more pages, on the last page write "The end of the table. 1.3". Illustrations are closely related to the text, so they are placed immediately after the link. In special cases, we allow the transfer of the illustration to the next turn. Placement of illustrations in each edition should be uniform. It is not allowed to place the heading directly in front of the illustration and the illustration immediately in front of the heading (must not complete the text). All illustrations must be numbered. Usually, pass-through or index (subprime) numbering is used. If the drawing is one - it is not numbered, the reference to it is made by the word "drawing" without abbreviations, and nothing is written under the drawing itself.

The footnote for the figure consists of:

- 1) from the conditional name and serial number with the necessary context, speech circulation, for example: "As can be seen from fig. 1.3 ... ";
- 2) the conditional name of the illustration, the serial number and the letter or word designation of its part, for example: fig. 1, a; rice 2, top, etc.

The abbreviation see is used when re-referring to the figure, for example: (see Figure 1.4); Also in the text you can make a link to the picture in parentheses: (Fig. 1.5). It is desirable to submit figures in the format \* .jpg or \* .bmp.

Duplication of the same results in the text, in tables and graphs should be avoided.

### **Preparation of abstract of research work**

Writing abstracts is an integral part of research practice. Theses are the statement of your vision of the problem in the form of a small analytical work. To successfully complete the work, the following rules must be observed: Times New Roman, 12-14, one and a half spacers, justified alignment.

The amount of work should not exceed the recommended publisher.

Abstracts should consist of three parts: the introduction, the main part and



conclusion.

All ideas must be reasoned and supported by examples.

This abstract is written to test your knowledge of the problem posed. Now for the content recommendations:

Avoid listing facts.

Give specific suggestions for solving the problem.

In the main part, state and argue your point of view on the problem. Do not be afraid to express your own opinion. You can imagine other points of view, but show why you disagree with them. The introduction and conclusion should be approximately equal in volume, the main part should consist of at least two paragraphs. Be sure to pay attention to the logical connection of the text.

### **Brief recommendations on the design of the content of the student's research report**

A report on research and development is made on one side of a sheet of white single-grade standard A4 paper (210x297 mm) at 1.5 line spacing. Allowable font height: size 12-14, recommended size - size 14. The number of characters per line is 60-65. Report pages should have margins: top - 20 mm, bottom - 20 mm, right - 10 mm, left - 25-30 mm. Paragraph indent size - 5 characters; Header should be done after 1-3 intervals.

Page numbering should be transparent and include a title page and appendices. Pages are numbered in Arabic numerals; page number is not indicated on the title page.

Report sections:

Title page,

Introduction (relevance, goals and objectives),

The main part (description of the research base, research methods, the volume of completed studies, tables with analysis of research results, possibly graphs and illustrations),

Conclusion (a brief summary of the research, conclusions)

List of sources and literature (literature, regulations, other sources of information on the subject of research, decorated in accordance with the current GOST).

Applications (completed study maps).

The report on the production practice "Research work" is submitted to the head of the research and is evaluated by a mark.

The substantive part of the Reports on industrial practice "Research work" is stored in the department.

### **Forms of certification (according to the practical training)**

At the end of the practical training, student submits to the head of practice a completed journal and completed research, abstract, theses, article for publication. The head of internship from department at the FEFU School of Biomedicine conducts an interview on work experience documents. According to the results of a successful interview and the implementation of all tasks on internship, the student receives a credit that can be scored.

### **The main criteria for evaluating research practice**

- all the necessary documents are correctly and clearly filled up;
- positive characteristic of the direct manager of the practice from the medical organization;
- clear and competent answers to questions, the head of practice from the department at the stage of an interview on the results of production practices.

Education and Science of the Ministry of Education and Science of Russia on the practical training of students.



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**SCHOOL OF BIOMEDICINE**

**WORKING PROGRAM OF ON-THE-JOB PRACTICE**

**Fund of assessment tools**

**Научно-исследовательская работа (Research)**

Education program

Specialty 31.05.01 «General medicine»

**Form of study: full time**

**Vladivostok**

**2017**

**Passport of the Fund Assessment Tools** is filled in accordance with the Regulations on the Funds of Evaluation Tools of Educational Programs of Higher Education - Bachelor's Programs, Specialties, FEFU Magistrates, approved by order of the Rector on 12/05/2015 No. 12-13-850.

<b>Code and formulation of competence.</b>	<b>Stages of formation of competence</b>	
PC-20 - the readiness to analysis and public presentation of medical information based on evidence-based medicine	Knows	basic and special basics of natural science and professional knowledge for solving applied problems; principles of evidence-based medicine.
	Able to	study independently and continuously improve their qualifications throughout the entire period of professional activity.
	Possesses	skills of writing a scientific text, skills of scientific public speaking and conducting scientific discussions.
PC-21 - the ability to participate in researches	Knows	Methods of studying scientific, medical and paramedical information.
	Able to	work effectively individually and in a group, be responsible for the results of the work; analyze domestic and foreign experience on research topics.
	Possesses	opportunity to plan a scientific work, to organize the search of the necessary information to choose the best methods of investigation, to conduct a study on research and development.
PC-22 - the willingness to participate in implementation of new methods and techniques aimed at protection of public health	Knows	basic principles of organization and management in the field of public health, in medical organizations and their structural divisions.
	Able to	apply the basic principles of organization and management in the field of public health, in medical organizations and their structural divisions;
	Possesses	Skills of organization and management in the field of public health, in medical organizations and their structural divisions.

## The scale of assessment of the competency formation

Code and formulation of competence	Stages of the formation of competencies		Criteria	Indicators	Points
PC-20 - the readiness to analysis and public presentation of medical information based on evidence-based medicine	Knows (threshold level)	basic and special basics of natural science and professional knowledge for solving applied problems; principles of evidence-based medicine.	Knowledge of basic and special basics of natural science and professional knowledge for solving applied problems; principles of evidence-based medicine.	Formed and structured systematic knowledge of basic and special basics of natural science and professional knowledge for solving applied problems; principles of evidence-based medicine.	65-71
	Is able to (advanced)	study independently and continuously improve their qualifications throughout the entire period of professional activity.	Ability to study independently and continuously improve their qualifications throughout the entire period of professional activity.	Ready and can to study independently and continuously improve their qualifications throughout the entire period of professional activity.	71-84
	Possesses (high)	skills of writing a scientific text, skills of scientific public speaking and conducting scientific discussions.	Formed skills of writing a scientific text, skills of scientific public speaking and conducting scientific discussions.	Skills surely to write a scientific text, skills of scientific public speaking and conducting scientific discussions.	85-100
PC-21 - the ability to participate in researches	Knows (threshold level)	Methods of studying scientific, medical and paramedical information.	Knowledge of methods of studying scientific, medical and paramedical information	Formed and structured systematic knowledge of methods of studying scientific, medical and paramedical information	65-71
	Is able to (advanced)	work effectively individually and in a group, be responsible for the results of the work; analyze domestic and foreign experience on research topics.	Ability to work effectively individually and in a group, be responsible for the results of the work; analyze domestic and foreign experience on research topics	Ready and can to work effectively individually and in a group, be responsible for the results of the work; analyze domestic and foreign experience on research topics	71-84
	Possesses (high)	opportunity to plan a scientific work, to organize the search of the necessary information to choose the best methods of investigation, to conduct a study on research and development.	Formed skills of planning a scientific work, to organize the search of the necessary information to choose the best methods of investigation, to conduct a study on research and development	Skills surely to plan a scientific work, to organize the search of the necessary information to choose the best methods of investigation, to conduct a study on research and development	85-100
PC-22 - the	Knows	basic principles of	Knowledge of	Formed and structured	

willingness to participate in implementation of new methods and techniques aimed at protection of public health	(threshold level)	organization and management in the field of public health, in medical organizations and their structural divisions.	basic principles of organization and management in the field of public health, in medical organizations and their structural divisions.	systematic knowledge of basic principles of organization and management in the field of public health, in medical organizations and their structural divisions.	
	Is able to (advanced)	apply the basic principles of organization and management in the field of public health, in medical organizations and their structural divisions;	Ability to apply the basic principles of organization and management in the field of public health, in medical organizations and their structural divisions;	Ready and can to apply the basic principles of organization and management in the field of public health, in medical organizations and their structural divisions;	
	Possesses (high)	Skills of organization and management in the field of public health, in medical organizations and their structural divisions.	Formed skills of organization and management in the field of public health, in medical organizations and their structural divisions.	Skills surely to organize and manage in the field of public health, in medical organizations and their structural divisions.	

### **Evaluation tools to monitor the results of the development of Professional Research Practice:**

The main result and form of reporting on the results of the student's mastery of the research practice module "Scientific research work" is the Practical training journal and "Research report".

In those cases if a student participated in student scientific societies with performing individual research work during the school year, a copy of the student's publication from the collection, a copy of the conference program with the student's performance, the winner's certificate are attached to the research paper research practice or participant of a scientific competition.

### **Typical tasks of Approximate topics of Professional Research Practice:**

1. Analysis of the prevalence of individual risk factors among the attached population of an ambulatory according to clinical examination.
2. Arterial hypertension as a risk factor: detection efficiency during medical examination, routing of patients with identified arterial hypertension.

3. Early diagnostics of risk factors "dyslipidemia" and "hyperglycemia" in the process of clinical examination. Diagnostics frequency, patient routing tactics.
4. The prevalence of smoking as a risk factor among the attached population according to the medical organization, coverage of measures to quit smoking, effectiveness.
5. Characteristics of hypodynamic and poor nutrition as risk factors according to the survey in the course of clinical examination, methods of correction.
6. Analysis of the effectiveness of clinical examination of population according to the clinic, on the basis of which the study is conducted.
7. Comprehensiveness of clinical examination of the adult population according to the medical organization on the basis of which the study is conducted. Problems of attracting people to undergo medical examination.
8. Rehabilitation of patients after myocardial infarction in the clinics, analysis of coverage, effectiveness methodologies.
9. Analysis of the health status of the attached population according to the results of clinical examination (group of health).
10. Individual in-depth preventive counseling for citizens with health groups II and IIIa, coverage according to polyclinics, methodology.
11. Group preventive counseling (patient's school) for people with chronic diseases, people with a high total cardiovascular risk, analysis of coverage according to polyclinic, methodology
12. Characteristics of the work on the implementation of palliative care to the population of Vladivostok, attached to the therapeutic site.
13. Analysis of the effectiveness of the correction of modifiable risk factors in persons under dispensary observation.
14. Evaluation of the effectiveness of follow-up observation of persons at therapeutic sites according to individual criteria.
15. Analysis of the achievement of target values of blood pressure in persons under medical observation.
16. Analysis of the causes of temporary disability in an outpatient clinic (for

therapeutic pathology).

17. Analysis of the causes of permanent disability in the outpatient clinic (for therapeutic pathology).

And other topics whose content is aimed at analyzing the actual problems of temporary health care.

The implementation of one research topic can be carried out both individually and in group format (as a rule).

The subject of R&D studies is chosen individually together with the supervisor immediately before the start of the production practice "Scientific research studies".





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«Far Eastern Federal University»  
(FEFU)

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SCHOOL OF BIOMEDICINE

**A JOURNAL OF  
Professional Research Practice:**

Student \_\_\_\_\_  
Full name

6 year \_\_\_\_\_ group specialty – General medicine

Place of practical training execution \_\_\_\_\_  
Name of medical institution

Period of practical training

since \_\_\_\_\_ 201\_\_ till \_\_\_\_\_ 201\_\_.

Grade for training \_\_\_\_\_

Head of practical training  
in FEFU of Russian ministry of education \_\_\_\_\_  
Full name Signature

Head of practical training  
in institution \_\_\_\_\_  
Full name Signature

Vladivostok 20\_\_/20\_\_ year

Theme of the scientific research studies:

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The list of practical skills mastered by the student during Professional Research

Practice:

№	Practical skills, proficiencies	Necessary quantity	Actually done
1	Skills of carrying out literary information search, compiling a list of references on the problem of research, design in accordance with STST	1	
2	Skills of work with literature, regulations, other sources of information on the subject of research (study and critical analysis)	1	
3	Skills of participating in developing a plan and organizing and conducting research on the subject	1	
4	Skills of participation in the selection of relevant methods and research techniques that meet the goals and objectives of the study	1	
5	Skills of research materials using general clinical and special research methods in accordance with the theme of the student's research	1	
6	Skills of a choice of methods of processing of the received results, skills of mathematical and statistical data processing	1	
7	Skills of systematization and analysis of primary data obtained in the course of research using statistical methods	1	
8	Skills of analyzing and describing the results obtained in the course of the study based on statistics, literature data, legal documents	1	
9	Skills of preparation and execution of research materials for publication (presentation)	1	

**Review  
of the head of practical training from a medical organization**

Signature of the head of practical training from a medical organization

Stamp



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**«Far Eastern Federal University»**  
(FEFU)

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SCHOOL OF BIOMEDICINE

**REPORT  
ON SCIENTIFIC RESEARCH STUDY**

Student \_\_\_\_\_

6 year \_\_\_\_\_ group

specialty –

Full name

General medicine

**Research theme:** \_\_\_\_\_

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Vladivostok, 2016

### Summary of the report on student research:

The list of practical skills mastered by the student in the framework of the industrial practice B2.P.6 " Scientific research studies "

№	Practical skills, proficiencies	Necessary quantity	Actually done
1	Skills of carrying out literary information search, compiling a list of references on the problem of research, design in accordance with STST	1	
2	Skills of work with literature, regulations, other sources of information on the subject of research (study and critical analysis)	1	
3	Skills of participating in developing a plan and organizing and conducting research on the subject	1	
4	Skills of participation in the selection of relevant methods and research techniques that meet the goals and objectives of the study	1	
5	Skills of research materials using general clinical and special research methods in accordance with the theme of the student's research	1	
6	Skills of a choice of methods of processing of the received results, skills of mathematical and statistical data processing	1	
7	Skills of systematization and analysis of primary data obtained in the course of research using statistical methods	1	
8	Skills of analyzing and describing the results obtained in the course of the study based on statistics, literature data, legal documents	1	
9	Skills of preparation and execution of research materials for publication (presentation)	1	

The main part of the report on the **Professional Research Practice** is stored at the department.

If available, a copy of the student's publication from the collection, a copy of the conference program with the student's performance, certificate of the winner or participant of the scientific competition are attached to the summary report.