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School of Biomedicine

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## **Abstracts of working programs of the academic disciplines**

**Specialty**  
**31.05.01 General Medicine**

Form of study: *full time*

Standard term of study

(full time study) *6 years*

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Annotations RPD General Medicine 2021 recruitment year

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## ANNOTATION

The discipline "Philosophy" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the basic part of the curriculum, is implemented in the 1st year in the 2nd semester. The total labor intensity of the discipline is 72 hours, 2 credit units

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" (specialist level of training), the curriculum for preparing students were used.

Philosophy is designed to help students create a holistic systemic understanding of the world and the place of a person in it; stimulate the need for philosophical assessments of historical events and facts of reality; to expand the erudition of future specialists and enrich their spiritual world; to help develop personal responsibility and independence; develop interest in fundamental knowledge.

Philosophy is a special culture of creative and critical thinking. The uniqueness of its position among other academic disciplines lies in the fact that it is the only one that asks the question of the place of man in the world, methodically teaches the student to pay attention to the very process of thinking and cognition. In the modern sense, philosophy is the theory and practice of reflective thinking. The course is aimed at realizing the modern status of philosophy in culture and in the field of scientific knowledge as a "science of reflective thinking". Philosophy is designed to promote the formation of a student's critical self-assessment of his own and someone else's worldview, the ability to enter into a dialogue and argue, to understand the laws of creative thinking. In addition, philosophy develops communicative competencies and skills of interdisciplinary vision of the problem,

During the course, the student will have the opportunity to enter into a competent dialogue with great thinkers about basic philosophical problems: what does it mean to be free; what is beauty; what is called "true knowledge" in science; how man is fundamentally different from animals.

The discipline "Philosophy" is logically and meaningfully connected with such courses as "History" and "Logic".

**Goals and objectives of the discipline:**

**Target-** to teach to think independently, to critically evaluate information flows, to creatively solve professional problems, to master modern methods of analyzing scientific facts and phenomena of social life, to be able to draw conclusions and generalizations; master the experience of critical thinking in the history of philosophy.

**Tasks:**

1. to master the culture of thinking, the ability in written and oral speech to correctly and convincingly draw up the results of mental activity;
2. strive for self-development, improvement of their qualifications and skills;
3. to form the ability to scientifically analyze socially significant problems and processes, the ability to use the basic provisions and methods of the humanities, social and economic sciences in various types of professional and social activities;
4. acquire new knowledge using modern educational and information technologies;
5. to develop the ability to use knowledge and understanding of human problems in the modern world, the values of world and Russian culture, the development of intercultural dialogue skills;
6. to cultivate a tolerant attitude to racial, national, religious differences of people.

For the successful study of the discipline "Philosophy", students should have the following preliminary competencies:

- the ability to express thoughts orally and in writing in accordance with the grammatical, semantic and cultural norms of the Russian language;
- possession of the main thesaurus of social science disciplines.

As a result of studying this discipline, students form the following universal competencies:

Name of the category (group) of universal competencies	Code and name of the universal competence (the result of mastering)	Code and name of the indicator of achievement of competence
Intercultural interaction	UK-5 Able to analyze and take into account the diversity of cultures in the process of intercultural interaction	UK-5.4 Perceives the intercultural diversity of society and the peculiarities of interaction in it in the socio-historical, ethical and philosophical contexts
		UK-5.5 Carries out intercultural interaction with the help of general and special philosophical methods of building intercultural communication, taking into account the goals of the activity
		UK-5.6 Forms and maintains ways of integrating participants in intercultural interaction, taking into account the grounds for their differences and commonality, ethical and philosophical contexts

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
UK-5.4 Perceives the intercultural diversity of society and the peculiarities of interaction in it in the socio-historical, ethical and philosophical contexts	<b>Knows</b> the content of the process of intercultural interaction in the context of cultural diversity
	<b>Can</b> take into account the diversity of cultures in the process of intercultural interaction
	<b>owns</b> skills of empirical analysis of manifestations of cultural diversity in the process of intercultural interaction
UK-5.5 Carries out intercultural interaction with the help of general and special philosophical methods of building intercultural communication, taking into account the goals of the activity	Knows the presence of intercultural differences among representatives of various groups of society.
	<b>Can</b> interact with representatives of various groups of society to achieve social and professional goals.
	<b>owns</b> the skill of overcoming intercultural differences among representatives of various groups of society in order to achieve the set social and professional goals.
UK-5.6 Forms and maintains ways of integrating participants in intercultural interaction, taking into account the grounds for their differences and commonality, ethical and philosophical contexts	<b>Knows</b> ways to determine the conditions for the integration of participants in intercultural interaction to achieve the goal, taking into account the grounds for their differences and commonality, ethical and philosophical contexts
	<b>Can</b> determine the conditions for the integration of participants in intercultural interaction to achieve the

	goal, taking into account the grounds for their differences and commonality, ethical and philosophical contexts
	<b>owns</b> the skills of determining the conditions for the integration of participants in intercultural interaction to achieve the goal, taking into account the grounds for their differences and commonality, ethical and philosophical contexts

For the formation of the above competencies within the discipline "Philosophy" the following methods of active / interactive learning are used:

Lectures:

1. Lecture-conference.
2. Lecture-discussion.

Practical lessons:

1. The method of scientific discussion.
2. Conference, or round table.

## ANNOTATION

The discipline "History" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the basic part of the curriculum, is implemented in the 1st year in the 2nd semester. The total labor intensity of the discipline is 72 hours, 2 credits. The curriculum provides for 18 hours of lectures, practical classes (18 hours), independent work of the student (36 hours).

The content of the discipline covers the problems of Russian history. Includes the ancient history of the country, the Middle Ages, Modern and Modern times. The history of Russia, European, Asian and American countries is considered taking into account the synchronism and non-synchronism of the process of historical development and its unevenness. The main tendencies of the historical process in the specified periods are analyzed. During the study of the course, the features of the development of the Russian state, the role of Russia in world history are considered.

The content of the course includes sections on the methodology of history and the place of history in the system of social sciences and humanities.

Knowledge of the most important concepts and facts of the history of Russia, as well as the global processes of human development, will enable students to more confidently navigate the complex and diverse phenomena of the world around us.

"History" has a close relationship with the following disciplines: "History of medicine, bioethics, deontology"

### **Goals and objectives of the discipline:**

**The aim of the course** is to form in students a comprehensive understanding of the cultural and historical originality of Russia, its place in the world and European civilization. To form systematized knowledge about the main patterns and features of the world-historical process, with an emphasis on the study of the history of Russia. Contribute to the development of skills for obtaining, analyzing and summarizing historical information. To the extent possible, introduce into the range of problems related to the field of future professional activity.

### **Course objectives**

1. Mastering the key problems of the historical development of Russia on the basis of modern approaches and assessments.



2. Formation of systematized knowledge about the features of the political, economic, socio-cultural development of our country on the basis of a comparative historical analysis of the historical processes of world civilization.

3. Formation of a sense of citizenship, patriotism and internationalism, moral and ethical qualities.

4. Understanding the continuity of the historical process, preserving and enriching the historical memory of the great events of the distant and recent past, of the glorious names and deeds of the ancestors.

As a result of studying this discipline, students form the following universal competencies:

Name of the category (group) of universal competencies	Code and name of the universal competence (the result of mastering)	Code and name of the indicator of achievement of competence
Intercultural interaction	UK-5 Able to analyze and take into account the diversity of cultures in the process of intercultural interaction	UK-5.1 Analyzes the current state of society based on scientific historical knowledge
		UK-5.2 Explains the features of the cultural diversity of society in accordance with scientific historical knowledge
		UK-5.3 Notes and analyzes the features of intercultural interaction in a historical context

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
UK-5.1 Analyzes the current state of society based on scientific historical knowledge	<b>Knows</b> philosophical foundations and the history of the formation of systemic reflective thinking, which allows one to perceive the intercultural diversity of society
	<b>Can</b> use the techniques of systemic reflective thinking to perceive and describe the intercultural diversity of society
	<b>owns</b> skills for the perception of the socio-historical, ethical and philosophical context of the situation of intercultural interaction

<p>UK-5.2</p> <p>Explains the features of the cultural diversity of society in accordance with scientific historical knowledge</p>	<p><b>Knows</b> the influence of the historical process on the development of the diversity of cultures and ethnic groups.</p>
	<p><b>Can</b> use the scientific conceptual apparatus to explain the emergence of the diversity of ethnic groups and cultures in accordance with scientific historical knowledge</p>
	<p><b>owns</b> the ability to explain the features of the cultural diversity of ethnic groups and cultures using a scientific conceptual apparatus and in accordance with scientific historical knowledge</p>
<p>UK-5.3</p> <p>Notes and analyzes the features of intercultural interaction in a historical context</p>	<p><b>Knows</b> the latest achievements of domestic and foreign historical science, discussion history problems.</p>
	<p><b>Can</b> work with historical sources; critically reflect on historical facts and events, overcome subjectivity and tendentiousness in their presentation, draw a conclusion and argue their own position on the basis of analysis of available information treat with respect and care historical heritage and cultural traditions.</p>
	<p><b>owns</b> culture of thinking, ability to generalization, analysis, perception of information, <b>tricks</b> conducting discussions and debates.</p>

## ANNOTATION

Discipline "History of Medicine, Bioethics, Deontology»is intended for students enrolled in the educational program of higher education 31.05.01 "General Medicine", is included in the basic part of the curriculum, is implemented in the 2nd year in semesters 3 and 4. The total labor intensity of the discipline is 180 hours, 5 credits.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education was used in the specialty 31.05.01 "General Medicine" (specialist training level).

The course program is based on the basic medical knowledge gained by students:

ability for abstract thinking, analysis, synthesis (OK-1);

the ability to use the foundations of philosophical knowledge to form a worldview position (OK-2);

the ability to analyze the main stages and patterns of the historical development of society in order to form a civic position (OK-3);

### **Goals and objectives of the discipline:**

**Target-**training of a medical specialist who has deeply mastered the humanitarian foundations of his profession, who has knowledge of the sociocultural context of both Russian and international significance of medical activity, in which the regulation of human relations is subordinated to the task of preserving human health, as well as the formation of the moral consciousness of future doctors, familiarization with the moral tradition of the national medicine through the direct transmission of moral experience from teachers to students.

### **Tasks:**

- to teach students a historical and analytical approach in an objective assessment of medical, hygienic knowledge about human health and disease at various stages of human development;
- to study the patterns and key issues of medicine in general, its characteristic features and distinctive features at various stages of development;

- to study the emergence and development of individual special biomedical, hygienic and clinical areas;
- to study the moral foundations (professional and personal) of medical practice;
- to teach how to regulate and resolve bioethical conflicts;
- to study the principles of behavior of medical personnel aimed at maximizing the usefulness of treatment and eliminating unfavorable omissions in medical activities;
- to master the cultural experience of mankind, to determine the significance of the place of morality in social relations.

As a result of studying this discipline, students form the following universal competencies (elements of competencies).

Name of the category (group) of universal competencies	Code and name of the universal competence (the result of mastering)	Code and name of the indicator of achievement of competence
Systemic and critical thinking	UK-1 Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	UK-1.1 Able to identify problem situations and search for the necessary information to solve problems in the professional field
		UK-1.3 Able to conduct a critical analysis of information using the historical method
Intercultural interaction	UK-5 Able to analyze and take into account the diversity of cultures in the process of intercultural interaction	UK-5.7 Able to comply with ethical and legal standards in the process of intercultural interaction
		UK-5.8 Able to analyze the features of social interaction, taking into account historical, national, cultural and religious characteristics
		UK-5.9 Able to competently and clearly present professional information in the process of intercultural interaction

Self-organization and self-development (including health savings)	UK-6 Able to identify and implement the priorities of their own activities and ways to improve them based on self-assessment and lifelong learning	UK-6.1 Able to prioritize and plan their own professional activities, monitor and analyze its results
		UK-6.2 Knows how to choose the most effective ways and means to improve their own professional activities based on self-assessment

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
UK-1.1 Able to identify problem situations and search for the necessary information to solve problems in the professional field	Knows the moral and legal norms accepted in society, identifying problem situations to solve problems in the professional field
	Knows how to use laws and regulations when searching for the necessary information to solve problems in the professional field
	Proficient in working with confidential information
UK-1.3 Able to conduct a critical analysis of information using the historical method	Knows how to edit texts of professional content, principles of cooperation
	Able to logically and reasonably analyze, carry out educational and pedagogical activities for the formation of tolerance
	Proficient in public speaking, discussion and debate, conflict resolution skills
UK-5.7 Able to comply with ethical and legal standards in the process of intercultural interaction	Knows the ethical and deontological aspects of medical practice
	Knows how to use the ethical and deontological aspects of medical practice
	Possesses communication skills with colleagues, middle and junior medical personnel, adults and adolescents, their parents and relatives
UK-5.8 Able to analyze the features of social interaction, taking into account historical, national, cultural and religious characteristics	Knows the rationale for the relevance of using the features of social interaction in social and professional interaction.
	Knows how to build interaction taking into account the characteristics of the main forms of scientific and religious consciousness, business and general culture of representatives of other ethnic groups and confessions, various social groups
	Owens methods of creating a non-discriminatory environment for interaction when performing professional tasks

UK-5.9 Able to competently and clearly present professional information in the process of intercultural interaction	Knows his resources and their limits (personal, situational, temporary), uses them optimally for the successful completion of the assigned task
	Is able to determine priorities for professional growth and ways to improve their own activities based on self-assessment according to selected criteria;
	Owens the principles of non-discriminatory interaction in personal and mass communication in order to fulfill professional tasks and strengthen social integration
UK-6.1 Able to prioritize and plan their own professional activities, monitor and analyze its results	Knows the methods of planning their own professional activities
	Able to prioritize and plan their own professional activities
	Owens the methodology of control and analysis when planning their own professional activities
UK-6.2 Knows how to choose the most effective ways and means of improvement own professional activity based on self-assessment	Knows the most effective ways and means to improve their own professional activities
	Knows how to choose the most effective ways and means to improve their own professional activities
	Owens the methods and means of improving their own professional activities based on self-assessment

As a result of studying this discipline, students

the following general professional competencies are formed:

Name of the category (group) of general professional competencies	Code and name of general professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Ethical and legal foundations of professional activity	GPC-1 Able to implement moral and legal norms, ethical and deontological principles in professional activities	GPC - 1.1 Able to observe the moral and legal foundations in professional activities
		GPC - 1.2 Knows the legislation of the Russian Federation in the field of health care, regulations and other documents that determine the activities of medical organizations and medical workers, general issues of organizing medical care for the population

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
GPC - 1.1 Able to observe the moral and	Knows moral and legal standards in professional activities

legal foundations in professional activities	Able to present professional information in the process of intercultural interaction, observing the principles of ethics and deontology
	Knows how to use moral and legal norms in professional activities
GPC - 1.2 Knows the legislation of the Russian Federation in the field of health care, regulations and other documents that determine the activities of medical organizations and medical workers, general issues of organizing medical care for the population	Knows the legislation of the Russian Federation in the field of health protection and regulations that determine the activities of medical organizations
	Knows how to use the materials of the legislation of the Russian Federation and regulatory legal acts that determine the activities of medical organizations in the provision of medical care
	Has the skills to use the materials of the legislation of the Russian Federation and regulatory legal acts that determine activities of medical organizations and issues of organizing medical care

As a result of studying this discipline, students  
the following general professional competencies are formed:

Name of the category (group) of general professional competencies	Code and name of general professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Ethical and legal foundations of professional activity	GPC-1 Able to implement moral and legal norms, ethical and deontological principles in professional activities	GPC - 1.1 Able to observe the moral and legal foundations in professional activities
		GPC - 1.2 Knows the legislation of the Russian Federation in the field of health care, regulations and other documents that determine the activities of medical organizations and medical workers, general issues of organizing medical care for the population

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
GPC - 1.1 Able to observe the moral and legal foundations in professional activities	Knows moral and legal standards in professional activities
	Able to present professional information in the process of intercultural interaction, observing the principles of ethics and deontology
	Knows how to use moral and legal norms in professional activities

GPC - 1.2 Knows the legislation of the Russian Federation in the field of health care, regulations and other documents that determine the activities of medical organizations and medical workers, general issues of organizing medical care for the population	Knows the legislation of the Russian Federation in the field of health protection and regulations that determine the activities of medical organizations
	Knows how to use the materials of the legislation of the Russian Federation and regulatory legal acts that determine the activities of medical organizations in the provision of medical care
	Has the skills to use the materials of the legislation of the Russian Federation and regulatory legal acts that determine activities of medical organizations and issues of organizing medical care

For the formation of the above competencies within the discipline "History of Medicine, Bioethics, Deontology" the following methods of active / interactive learning are used: lectures - conferences, problematic lectures, visualization lectures; seminars - debate, round table (preparation and discussion of abstracts).



## ANNOTATION

The discipline "Russian Language in Professional Communication" is intended for students enrolled in the educational program 31.05.01 General Medicine. The discipline is implemented on the 1st year, 1st semester, is the basic discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 General Medicine, the curriculum for training specialists in the specialty 31.05.01 General Medicine were used.

The total complexity of mastering the discipline is 2 credits, 72 hours. The curriculum provides for practical classes (18 hours) and independent work of the student (54 hours).

"Russian language in professional communication» has a close relationship with the following disciplines: "Latin language", "Foreign language"

### **Goals and objectives of the discipline:**

**Target**-the formation and development of students' ability to logically correctly, reasonably and clearly build oral and written speech; skills in writing a reasoned presentation of one's own point of view; skills of public speech, argumentation, discussion and controversy, practical analysis of the logic of various kinds of reasoning.

### **Tasks:**

1. Improving the quality of student training through systematic and methodological support of the educational process indirection of preparation 31.05.01 General medicine
2. Reflection in the content of the discipline of modern achievements of culture, science and other areas of social practice directly related to the academic discipline.
3. Rational distribution of study time by sections and types of training sessions.
4. Planning and organization of independent work of students, taking into account the rational use and distribution of study time between classroom activities and independent work of students.

5. Determination of the educational and methodological support of the discipline necessary for its development.

6. Development of an optimal system of current and final control of students' knowledge

As a result of studying this discipline, students form the following universal competencies:

Name of the category (group) of universal competencies	Code and name of the universal competence (the result of mastering)	Code and name of the indicator of achievement of competence
Communication	UK-4 Able to apply modern communication technologies, including in a foreign language(s), for academic and professional interaction	UK-4.4 Ability to compose and present in writing in accordance with the requirements for formalization of official business and academic texts in Russian: abstract, annotation, essay, resume, application, business letter
		UK-4.5 The ability, based on the acquired knowledge and skills, to participate in discussions, create and present public oral presentations of various genres to the audience

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
UK-4.4 Ability to compose and present in writing in accordance with the requirements for formalization of official business and academic texts in Russian: abstract, annotation, essay, resume, application, business letter	<b>Knows</b> philosophical foundations and the history of the formation of systemic reflective thinking, which allows one to perceive the intercultural diversity of society
	<b>Can</b> use the techniques of systemic reflective thinking to perceive and describe the intercultural diversity of society
	<b>owns</b> skills for the perception of the socio-historical, ethical and philosophical context of the situation of intercultural interaction
UK-4.5 The ability, based on the acquired knowledge and skills, to participate in discussions, create and present public	<b>Knows</b> the influence of the historical process on the development of the diversity of cultures and ethnic groups.
	<b>Can</b> use the scientific conceptual apparatus to explain the emergence of the diversity of ethnic

oral presentations of various genres to the audience	groups and cultures in accordance with scientific historical knowledge
	<b>owns</b> the ability to explain the features of the cultural diversity of ethnic groups and cultures using a scientific conceptual apparatus and in accordance with scientific historical knowledge

## ANNOTATION

Discipline "Latin language" is intended for students studying under the educational program 31.05.01 "Medicine", is included in the basic part of the curriculum, is implemented in the 1st year in the 1st and 2nd semesters. The total labor intensity of the discipline is 144 hours, 4 credits. The curriculum provides for practical classes (72 hours) and independent work of the student (72 hours).

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" (specialist level of training), the curriculum for preparing students were used.

"Latin language" has a close connection with the following disciplines: "Russian language and culture of speech", "Foreign language"

### **Goals and objectives of the discipline:**

**Target** -formation of a system of competencies that contribute to the development of analytical and linguistic thinking based on familiarity with the peculiarities of pronunciation, grammatical structure and vocabulary of the Latin language.

### **Tasks:**

- the formation of the student's ability to read and write in Latin, as well as the basic volume of grammar, vocabulary and terminology;
- formation and expansion of the terminological competence of the future specialist;
- formation of knowledge and ability to translate with a dictionary from Latin into Russian and from Russian into Latin texts of varying degrees of complexity;
- the formation of an active vocabulary from the golden fund of Latin ethical winged expressions and aphorisms that help to increase and strengthen the authority of both professional and general cultural competencies.

As a result of studying this discipline, students form the following general cultural and professional competencies (elements of competencies)

As a result of studying this discipline, students form the following universal competencies:

Name of the category (group) of universal competencies	Code and name of the universal competence (the result of mastering)	Code and name of the indicator of achievement of competence
Communication	UK-4 Able to apply modern communication technologies, including in a foreign language, for academic and professional interaction	UK-4.1 The ability to use the studied lexical units in situations of everyday, social, cultural and business communication in a foreign language
		UK-4.2 The ability to recognize and use the studied grammatical categories and constructions for the implementation of intercultural communication in a foreign language
		UK-4.3 The ability to build statements using the studied lexical and grammatical units in accordance with the rules of a foreign language

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
UK-4.1 The ability to use the studied lexical units in situations of everyday, social, cultural and business communication in a foreign language	Knows the grammatical system and the lexical minimum of one of the foreign languages
	Knows how to use the state and foreign languages in professional activities
	Has the skills to extract the necessary information from the original text in a foreign language on professional issues.
UK-4.2 The ability to recognize and use the studied grammatical categories and constructions for the implementation of intercultural communication in a foreign language	Knows the behavior of selected groups of people in the process of communication in professional activities
	<b>Can</b> use techniques for building integration links of communication interaction in professional activities
	<b>owns</b> skills to maintain the integration interaction of selected groups of people in the process of communication in professional activities
UK-4.3 The ability to build statements using the studied lexical and grammatical	Knows the terminology and rules of a foreign language in professional communication
	Able to optimally apply knowledge of a foreign language in professional communication

units in accordance with the rules of a foreign language

Possesses the skill of oral and written communication to solve professional problems.

## ANNOTATION

The discipline "Foreign Language" is intended for students studying under the educational program 31.05.01 General Medicine

The discipline is implemented in 1-2 courses, in 1-4 semesters, it is a basic discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 General Medicine, the curriculum for training specialists in the specialty 31.05.01 General Medicine were used.

The total labor intensity of mastering the discipline is 12 credit units, 432 hours. The curriculum provides for practical classes (288 hours) and independent work of the student (144 hours).

The foreign language course is multi-level, developed in the context of continuing education and built on an interdisciplinary integrative basis. Teaching a foreign language is logically connected with other general educational and special disciplines, because. professionally-oriented texts on a wide profile of the direction of study are used as educational material.

"Foreign language" has a close connection with the following disciplines: "Latin language", "Russian language and culture of speech"

### **Goals and objectives of the discipline:**

**The purpose of learning** discipline "Foreign language" is the acquisition by students of communicative competence, allowing the use of a foreign language in professional, socio-cultural and self-educational activities.

### **Learning objectives:**

- improvement and systematization of the received in secondary school knowledge, skills and abilities in all types of speech activity (reading, listening, speaking, writing).

- expanding knowledge about the culture of the countries of the studied foreign language and their socio-cultural specifics;

- development of the ability to use a foreign language in future professional activities (work with traditional and electronic media, business correspondence, compilation and presentation of annotations, theses, scientific reports, articles);

- formation of educational and cognitive motivation in a foreign language in the process of practical application of acquired knowledge, skills and abilities (participation in olympiads, competitions, conferences)

- development of educational activity and independence of students as the basis for further self-educational activities in a foreign language.

As a result of studying this discipline, students form the following universal competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of the universal competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Communication	UK-4 Able to apply modern communication technologies, including in a foreign language, for academic and professional interaction	UK-4.1 The ability to use the studied lexical units in situations of everyday, social, cultural and business communication in a foreign language
		UK-4.2 The ability to recognize and use the studied grammatical categories and constructions for the implementation of intercultural communication in a foreign language
		UK-4.3 The ability to build statements using the studied lexical and grammatical units in accordance with the rules of a foreign language

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
UK-4.1 The ability to use the studied lexical units in situations of everyday, social, cultural and business communication in a foreign language	Knows the grammatical system and the lexical minimum of one of the foreign languages
	Knows how to use the state and foreign languages in professional activities
	Has the skills to extract the necessary information from the original text in a foreign language on professional issues.
UK-4.2 The ability to recognize and use the studied grammatical categories and constructions for the implementation	Knows the behavior of selected groups of people in the process of communication in professional activities
	<b>Can</b> use techniques for building integration links of communication interaction in professional activities



of intercultural communication in a foreign language	<b>own</b> skills to maintain the integration interaction of selected groups of people in the process of communication in professional activities
UK-4.3 The ability to build statements using the studied lexical and grammatical units in accordance with the rules of a foreign language	Knows the terminology and rules of a foreign language in professional communication
	Able to optimally apply knowledge of a foreign language in professional communication
	Possesses the skill of oral and written communication to solve professional problems.

## ANNOTATION

The discipline "Jurisprudence" is intended for students enrolled in the educational program of higher education 31.05.01 "General Medicine", is included in the basic part of the curriculum, is implemented in the 3rd year in the 5th semester. The total labor intensity of the discipline is 108 hours, 3 credits. Of these, lectures (18 hours), practical classes (18 hours), independent work (72 hours).

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education was used in the specialty 31.05.01 "General Medicine" (specialist training level).

The course program is based on the basic knowledge gained by students: ability for abstract thinking, analysis, synthesis (OK-1); readiness for communication in oral and written forms in Russian and foreign languages to solve the problems of professional activity (OPK-2);

The content of the discipline covers a range of issues that make it possible to form a comprehensive understanding of the main legal phenomena, civil rights and obligations, the legislation of the Russian Federation and its violation.

### **Goals and objectives of the discipline:**

**Target disciplines-** the formation of students studying in non-core areas of training, legal culture and legal awareness, the ability to navigate in life and professional situations from the standpoint of law and law.

### **Tasks course study:**

- 1) to form stable knowledge in the field of law;
- 2) to develop the level of legal awareness and legal culture of students;
- 3) develop the ability to perceive and analyze normatively-legal acts, including for the application of this knowledge in their professional activities;
- 4) to form and strengthen the skills of practical application of the law.

For the successful study of the discipline "Jurisprudence", students should have the following preliminary competencies acquired as a result of studying in a secondary school:

- the ability to self-improvement and self-development, to improve the general cultural level;
- possession of a culture of thinking, the ability to synthesize, analyze, process information.

As a result of studying this discipline, students form the following universal competencies:

Name of the category (group) of universal competencies	Code and name of the universal competence (the result of mastering)	Code and name of the indicator of achievement of competence
civil position	UK-11.1 Analyzes the current legal norms that ensure the fight against corruption in various areas of life, as well as ways to prevent corruption and form an intolerant attitude towards it	UK-11.1 Analyzes the current legal norms that ensure the fight against corruption in various areas of life, as well as ways to prevent corruption and form an intolerant attitude towards it
		UK-11.2. Plans, organizes and conducts events that ensure the formation of a civic position and the prevention of legal nihilism, including in terms of combating corruption, extremism, terrorism, etc.
		UK-11.3 Complies with the rules of social interaction based on an intolerant attitude towards corruption

UK-11.1 Analyzes the current legal norms that ensure the fight against corruption in various areas of life, as well as ways to prevent corruption and form an intolerant attitude towards it	Knows the essence of corrupt behavior and its relationship with social, economic, political and other conditions
	Knows how to analyze the current legal norms that ensure the fight against corruption in various areas of life, as well as ways to prevent corruption and form an intolerant attitude towards it
	He has the skills to work with legislative and other regulatory legal acts that regulate the fight against corruption in various areas of life.
UK-11.2. Plans, organizes and conducts events that ensure the formation of a civic position and the prevention of legal nihilism, including in terms of combating	Knows the methods, ways and means of influencing participants in public relations to form an intolerant attitude towards manifestations of legal nihilism, including manifestations of extremism, terrorism, corruption, etc.
	Able to implement measures that ensure the formation of a civic position and measures for legal education and

<p>corruption, extremism, terrorism, etc.</p>	<p>prevention of legal nihilism, including in terms of combating corruption, extremism, terrorism, etc.</p>
	<p>Possesses the skills of forming a civic position and legal awareness, ensuring the prevention of legal nihilism, countering corruption, extremism and terrorism, etc.</p>
<p>UK-11.3 Complies with the rules of social interaction based on an intolerant attitude towards corruption</p>	<p>Knows the current legislation and norms governing social interaction based on an intolerant attitude towards corruption</p>
	<p>Able to participate in public relations on the basis of an intolerant attitude towards corruption</p>
	<p>Possesses social interaction skills based on an intolerant attitude towards corruption</p>

## ANNOTATION

The discipline "Life Safety" is intended for students enrolled in the educational program 31.05.01 "Medicine".

The discipline is implemented in the 2nd year, is the basic discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students were used.

The total labor intensity of the discipline is 72 hours, 2 credits, 72 hours. The curriculum provides for 18 hours of lectures, 18 hours of practical training and independent work of the student (36 hours).

The development in students of a conscious understanding of the relationship between human health and the environment, factors and conditions of life, emergencies, work activities is a necessary prerequisite for their active participation in the implementation of evidence-based and effective therapeutic measures, disease prevention, promotion of a healthy lifestyle.

The study of life safety is of particular importance in the formation of medical practice, in solving the list of problems for the prevention of diseases given in the Federal State Educational Standard, in developing the clinical thinking of students.

A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline.

The discipline "Life Safety" is logically and meaningfully connected with such courses as "Philosophy", "Biology", "Human Anatomy", "Fundamentals of Nursing".

The course program is based on the basic knowledge gained by students:

- ability for abstract thinking, analysis, synthesis (OK 1);
- ability and willingness to implement ethical and deontological principles in professional activities (GPC 4);
- the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (OPK-9);

- readiness to ensure the organization of patient care and the provision of primary pre-hospital health care (GPC 10);
- readiness to provide medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases that are not accompanied by a threat to the patient's life and do not require emergency medical care (PC 10);
- readiness to participate in the provision of emergency medical care in conditions requiring urgent medical intervention (PC 11).
- readiness to participate in the provision of medical care in emergency situations, including participation in medical evacuation (PC-13);

### **Goals and objectives of the discipline:**

#### **Course objective:**

Formation in students knowledge aimed at the safe and comfortable interaction of a person with the natural, man-made and biological and social environment, reducing mortality and human health disorders from adverse factors of a natural, man-made and biological and social nature in military operations and emergency situations.

#### **Tasks:**

1. Acquisition of an understanding of the risks caused by the impact of damaging factors of various types of emergencies;
2. Acquisition of theoretical knowledge about the nature and development of emergency situations, catastrophes, accidents, as well as the structural components of the Russian system for the prevention and elimination of consequences of emergency situations (RSChS);
3. Acquisition of knowledge of the system of health care for the population in emergency situations and the ability to organize the provision of medical care to the population in emergency situations.
4. Formation of readiness to participate in the implementation of measures to protect the population and medical personnel in emergency situations; - ability and readiness to organize medical and sanitary support of the population during the

liquidation of the consequences of emergency situations; - abilities for reasoned substantiation of decisions taken from the point of view of safety;

5. Formation of motivation and ability of independent decision-making of a specialist in the organization of medical and sanitary provision of the population during the elimination of the consequences of an emergency.

As a result of studying this discipline, students form the following universal competencies:

Name of the category (group) of universal competencies	Code and name of universal competence	Competence achievement indicators
<b>Safety vital activity</b>	UK-8 Identifies dangerous and harmful factors, predicting the possible consequences of their impact in everyday life, in production activities, in emergency situations	UK-8.1 Identifies dangerous and harmful factors, predicting the possible consequences of their impact in everyday life, in production activities, in emergency situations
		UK-8.2 Offers means and methods for preventing hazards and maintaining safe living conditions to preserve the natural environment and ensure the sustainable development of society
		UK-8.3 Develops measures to protect the population and personnel in the conditions of realization of dangers, including in the event of emergencies and military conflicts

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
UK-8.1 Identifies dangerous and harmful factors, predicting the possible consequences of their impact in	Knows: the characteristics and signs of dangerous and harmful factors, the possible consequences of their impact
	Knows how to: establish cause-and-effect relationships between danger and the possible consequences of exposure, assess the potential risk

<b>Code and name of the indicator of achievement of competence</b>	<b>Name of the assessment indicator (the result of training in the discipline)</b>
everyday life, in production activities, in emergency situations	Owens: methods for identifying dangerous and harmful factors, predicting the possible consequences of their impact in various fields of activity, including in emergency situations
UK-8.2 Offers means and methods for preventing hazards and maintaining safe living conditions to preserve the natural environment and ensure the sustainable development of society	Knows: principles, methods and means for maintaining safe living conditions and preventing hazards
	Knows how to: select and apply specific means and methods of protection to ensure security in various given situations
	Owens: tools and methods for preventing exposure to hazards and maintaining safe living conditions
UK-8.3 Develops measures to protect the population and personnel in the conditions of realization of dangers, including in the event of emergencies and military conflicts	Knows: the main measures necessary to protect a person from dangerous and harmful production factors, as well as in the event of natural, man-made emergencies and military conflicts
	Able to: develop measures necessary to ensure the safety of the object of protection in the conditions of the implementation of hazards
	Owens: the ability to independently develop and justify measures to protect a person in specific conditions of the implementation of dangers, including in the event of emergencies and military conflicts

For the formation of the above competencies within the discipline "Life Safety" the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training programs.
2. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts, a lesson-conference.

The proportion of practical classes conducted in interactive forms is 10% of classroom time; independent extracurricular work - 42% of the time



## ANNOTATION

The discipline "Physical culture" is intended for students studying under the educational program of higher education 31.05.01 "General Medicine", is included in the basic part of the curriculum, is implemented in the 1st year in the 1st semester. The total labor intensity of the discipline is 72 hours, 2 credits. Of which lectures (2 hours), practical classes (68 hours), independent work (2 hours)

The course program is based on the basic knowledge acquired by students in the secondary school.

The academic discipline "Physical culture and sport" is consistently connected with the following disciplines "Life safety".

The main content of the discipline "Physical culture and sport" is the general theoretical aspects of physical culture, the practical development of means (exercises) from the basic types of motor activity (athletics, sports games (volleyball)) for the formation of personal physical culture.

### **Goals and objectives of the discipline:**

**aim**the study of the discipline is the formation of the physical culture of the individual and the ability to use a variety of means of physical culture and sports for the preservation and promotion of health, psychophysical training and self-training for future professional activities.

### **Tasks:**

1. Formation of knowledge, abilities and skills in the implementation of means of basic types of motor activity (athletics, sports games (volleyball)), aesthetic and spiritual development of students.

2. Development of physical abilities by means of basic types of motor activity to improve health and maintain physical and mental performance.

3. Education of socially significant qualities and the formation of needs for a healthy lifestyle for effective professional self-realization.

For the successful study of the discipline "Physical Culture and Sports", students must have the following preliminary competencies:

- the ability to use the main forms and types of physical activity to organize a healthy lifestyle, active recreation and leisure;
- possession of general methods of strengthening and maintaining health, maintaining efficiency, preventing disease prevention.

As a result of studying this discipline, students form the following universal competence:

Name of the category (group) of universal competencies	Code and name of universal competence	Competence achievement indicators
Self-organization and self-development (including health protection)	UK-7 Able to maintain the proper level of physical fitness to ensure a full social and professional activities	UK-7.1 Understands the role of physical culture and sports in modern society, in human life, preparing him for social and professional activities, the importance of physical culture and sports activity in the structure of a healthy lifestyle and the features of planning an optimal motor regimen, taking into account the conditions of future professional activity.
		UK-7.2 Uses self-control methodology to determine the level of health and physical fitness in accordance with the regulatory requirements and conditions of future professional activity.
		UK-7.3 Maintains the proper level of physical fitness to ensure full-fledged social and professional activities, regularly doing physical exercises.

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
UK-7.1 Understands the role of physical culture and sports in modern society, in human life, preparing him for social and professional activities, the importance of physical culture and sports activity in the structure of a healthy lifestyle and the features of planning an optimal motor regimen, taking into account the conditions of future professional activity.	Knows: the importance of the role of physical culture and sports in modern society, in human life, preparing him for social and professional activities, the importance of physical culture and sports activity in the structure of a healthy lifestyle and the features of planning an optimal motor regimen, taking into account the conditions of future professional activity.
	Able to: organize independent physical education classes.
	Possesses: skills of motor mode planning taking into account professional activity

<b>Code and name of the indicator of achievement of competence</b>	<b>Name of the assessment indicator (the result of training in the discipline)</b>
UK-7.2 Uses self-control methodology to determine the level of health and physical fitness in accordance with the regulatory requirements and conditions of future professional activity.	Knows: means and methods of self-control to determine the level of health and physical fitness
	Able to: apply the basic methods of self-control in the process of physical education and sports
	Owns: the ability to determine the state of health, the level of development of physical qualities and motor skills
UK-7.3 Maintains an adequate level of physical fitness to ensure full-fledged social and professional activities, regularly engaging in physical exercises	Knows: the main provisions of the theory and methodology of physical culture and sports
	Able to: ensure the preservation and strengthening of individual health with the help of basic motor actions and basic sports
	Owns: technologies of planning physical improvement and methods of practicing various types of motor activity

## ANNOTATION

The discipline "Medical Informatics, Medical Statistics" is intended for students enrolled in the educational program 31.05.01 "General Medicine". The discipline is implemented in the 2nd year, 4th semester, is the basic discipline. The total labor intensity of mastering the discipline is 3 credits, 108 hours. The curriculum provides for 18 hours of lectures, laboratory work (36 hours), practical classes (18 hours) and independent work of the student (36 hours).

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for the training of specialists in the specialty 31.05.01 "General Medicine" were used.

The content of the discipline covers a range of issues related to the probabilistic nature of medicine, which makes obvious the need for a good knowledge of the appropriate methods for solving problems associated with heterogeneity and uncertainty. In medicine and public health, various statistical concepts are often used, consciously or unconsciously, when making decisions on such issues as assessing the state of health, its prognosis, choosing a strategy and tactics for prevention and treatment, assessing long-term results and survival.

"Medical informatics, informatics" has a close relationship with the following disciplines: "History", "Physics and Mathematics", "Biology".

A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline.

The course program is based on the basic knowledge gained by students:

- the ability and willingness to analyze the results of their own activities to prevent professional errors (OPK-5);
- readiness to use the basic physical-chemical, mathematical and other natural science concepts and methods in solving professional problems (OPK-7);
- the ability to participate in scientific research (PC-18);

**Goals and objectives of the discipline:**

**Target:** formation of competencies in theoretical knowledge, skills and abilities of collecting, processing and analyzing statistical data obtained at different stages of scientific research, necessary for the subsequent professional activity of specialists.

**Tasks:**

- to form a system of knowledge on the statistical processing of data from biomedical research;
- show possibilities use of multivariate statistical methods for information processing and data analysis of experimental material;
- to acquaint with the methods of systematization of experimental material in the interpretation of scientific facts;
- use specialized software designed for statistical data analysis.

As a result of studying this discipline, students form the following universal competencies (elements of competencies).

Name of the category (group) of universal competencies	Code and name of universal competence (result of development)	Code and name of the indicator of achievement of competence
Systems and critical thinking	UK-1 Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	UK-1.2 Able to form value judgments in the professional field

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
UK-1 Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	Know: basic methods for structuring libraries of files containing various information
	Be able to: structure the received information, work with files, rationally adjust the file structure, apply the physical principles of information storage
	Own: the skills of structuring information using information models of various types, structuring

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
	file libraries to facilitate the perception and search for information, identifying patterns

As a result of studying this discipline, students form the following general professional competencies (elements of competencies).

Name of the category (group) of universal competencies	Code and name of general professional competence (result of development)	Code and name of the indicator of achievement of competence
information literacy	OPK-10 Able to understand the principles of operation of modern information technologies and use them to solve problems of professional activity	GPC-10.1 Able to use modern information and communication tools and technologies in professional activities
		GPC-10.2 Able to follow the rules of information security in professional activities

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
GPC-10.1 Able to use modern information and communication tools and technologies in professional activities	Know modern information and communication tools and technologies in professional activities
	Be able to use modern software, hardware and materials in professional activities_
	Have the skills to work with modern software, hardware and materials in professional activities
GPC-10.2 Able to follow the rules of information security in professional activities	Know information security rules in professional activities
	be able to implement information security rules in professional activities
	Possess the ability and readiness information security rules in professional activities

As a result of studying this discipline, students form the following professional competencies (elements of competencies).

Name of the category (group) of	Code and name of professional development)	Code and name of the indicator of achievement of competence
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<b>universal competencies</b>		
Type of tasks of professional activity: organizational and managerial	PC-17 Ready to participate in the assessment of the quality of medical care using the main medical and statistical indicators	PC-17.2 Able to analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population
	PC-19 Ready to maintain medical records, including in electronic form	PC-19.1 Knows the rules for issuing medical documentation in medical organizations that provide medical care on an outpatient basis, including at home when a medical worker is called
		PC-19.2 Knows the rules of work in information systems and information and telecommunications network "Internet"
		PC-19.3 Able to fill out medical documentation, including in electronic form
		PC-19.4 Able to use information systems and information and telecommunications network "Internet" in professional activities

<b>Code and name of the indicator of achievement of competence</b>	<b>Name of the assessment indicator (the result of training in the discipline)</b>
PC-17.2 Able to analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population	<b>Knows</b> principles for conducting analysis of medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population
	<b>Can</b> under control analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population
	<b>Capable on your own</b> analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population
PC-19.1 Knows the rules for issuing medical documentation in medical organizations that provide medical care on an outpatient basis,	<b>Knows</b> medical documentation in medical organizations providing medical care on an outpatient basis, including at home when a medical worker is called
	<b>Can</b> draw up medical documentation under control in medical organizations providing medical care on an

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
including at home when a medical worker is called	outpatient basis, including at home when a medical worker is called
	<b>Owens a skill</b> registration of medical documentation in medical organizations providing medical care on an outpatient basis, including at home when a medical worker is called
PC-19.2 Knows the rules of work in information systems and information and telecommunications network "Internet"	<b>Knows</b> information resources of the Internet.
	<b>Can</b> work in the information environment of the Internet in compliance with the rules of information and anti-virus security.
	<b>Owens a skill</b> systematic work of the information environment. Internet in compliance with the rules of information and anti-virus security
PC-19.3 Able to fill out medical documentation, including in electronic form	<b>Knows</b> modern medical information systems for electronic document management.
	<b>Can</b> use medical information systems of electronic document management to fill in medical records
	<b>Owens a skill</b> use of medical information systems of electronic document management for filling out medical records
PC-19.4 Able to use information systems and information and telecommunications network "Internet" in professional activities	<b>Knows</b> modern medical professional information resources on the Internet.
	<b>Can</b> receive reliable information in modern medical professional information resources on the Internet.
	<b>Owens a skill</b> use of modern medical professional information resources on the Internet to obtain reliable professional information.



## ANNOTATION

The discipline "General and Medical Chemistry" is intended for students studying under the educational program of higher education 31.05.01 "General Medicine", is included in the basic part of the curriculum, is implemented in the 1st year in the 1st and 2nd semester. The total labor intensity of the discipline is 216 hours, 6 credits.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education was used in the specialty 31.05.01 "General Medicine" (specialist training level).

The course program is based on the basic knowledge gained by students:  
ability for abstract thinking, analysis, synthesis (OK-1);

The content of the discipline covers a range of issues related to the study of the laws of thermodynamics and bioenergetics, colligative properties of solutions, ionic equilibria, electrochemistry, chemical kinetics and catalysis, organic chemistry, analytical chemistry and physicochemical methods of analysis. Mastering the discipline "Chemistry" is necessary for the subsequent study of such disciplines as "Pharmacology", "Medical Biotechnology" and "Biochemistry".

### **Goals and objectives of the discipline:**

**The purpose of studying the discipline-** is the mastery of the basics of chemical and physical-chemical knowledge by future specialists, which are necessary for the study of processes occurring in a living organism, during their transition into qualitatively new physiological phenomena.

### **Discipline tasks:**

- Master the skills of conducting scientific research to establish the relationship between the physicochemical properties of substances and their pharmacological activity. To study the basic laws of chemical kinetics and thermodynamics in order to determine the possibility of the flow and direction of bioenergetic processes;
- Be able to apply the laws of chemical kinetics to increase the speed of the main and block side processes;

- Be able to apply physical and chemical methods for analytical and environmental purposes.
- Learn to use the methods of inorganic, physical, analytical and organic chemistry to solve specific problems of biology and medicine.

As a result of studying this discipline, students form the following general professional competencies (elements of competencies).

Name of the category (group) of universal competencies	Code and name of general professional competence (result of development)	Code and name of the indicator of achievement of competence
Etiology and pathogenesis	GPC-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems	<b>Knows</b> Methods of physical, laboratory, instrumental examination of a patient to solve professional problems.
	<b>Can</b> analyze the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems.
	<b>Owens a skill</b> interpretation of data on the state of the human body obtained in the study of the function of human organs and systems in normal and pathological conditions

To form the above competencies within the framework of the discipline "Chemistry", the following methods of active / interactive learning are used: active reading, debriefing, problem lecture.

## ANNOTATION

Discipline "Biochemistry" is intended for students enrolled in the educational program of higher education 31.05.01 "General Medicine", is included in the basic part of the curriculum, is implemented in the 2nd year in semesters 3 and 4. The total labor intensity of the discipline is 252 hours, 7 credits.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education was used in the specialty 31.05.01 "General Medicine" (specialist training level).

Modern biochemistry is a branched field of knowledge, including a number of sections. The most important of them are bioorganic chemistry, dynamic biochemistry, molecular biology, and functional biochemistry. Formed as an independent branch and medical biochemistry, including all the above sections, and not only in that part that is related to human health and disease. Medical biochemistry studies the molecular basis of human physiological functions, the molecular mechanisms of the pathogenesis of diseases (molecular pathology), the biochemical basis for the prevention and treatment of diseases, biochemical methods for diagnosing diseases and monitoring the effectiveness of treatment. Biological chemistry, together with such medical and biological disciplines as biology and general genetics, normal human anatomy, histology, normal physiology, forms students' knowledge about the structure and functioning of a healthy body, and together with pathophysiology, pathological anatomy and pharmacology - knowledge about the essence of general pathological processes and the most common diseases, about the mechanisms of action of drugs.

Knowledge of biochemistry is fundamental in the education of a doctor; it serves as the basis for the study of subsequent theoretical disciplines and the formation of a doctor's clinical thinking in medical departments.

The discipline "Biochemistry" is logically and meaningfully connected with such courses as general and inorganic chemistry, physiology, histology, biology.

The course program is based on the basic medical knowledge gained by students:

the ability to abstract thinking, analysis, synthesis (OK-1);

willingness to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies and taking into account the basic requirements of information security (OPK-1);

readiness to use the basic physicochemical, mathematical and other natural science concepts and methods in solving professional problems (OPK-7);

### **Goals and objectives of studying the discipline:**

**Target** -to form students' knowledge about the chemical essence of life phenomena, to teach them to apply in the study of subsequent disciplines and in professional activities knowledge about the chemical composition and biochemical processes occurring in the human body, as about the characteristics of the norm and signs of disease.

#### **Tasks:**

- formation of knowledge about the molecular organization and molecular mechanisms of the functioning of living things.
- formation of the ability to apply knowledge about the chemical composition and biochemical processes as characteristics of the norm or signs of the disease in the study of subsequent disciplines and in practical work.
- the formation of initial practical skills in biochemical diagnostic informatics and analytics, knowledge of the principles of basic clinical and biochemical analyzes, mastery of express methods of biochemical analysis, the ability to choose adequate research methods and interpret the results.

For the successful study of the discipline "Biochemistry", students must have the following preliminary competencies:

- have the ability and willingness to analyze the patterns of functioning of individual organs and systems, use knowledge of the anatomical and physiological foundations, the main methods of clinical and immunological examination and assessment of the functional state of the body of an adult and adolescent for the timely diagnosis of diseases and pathological processes;

- have the ability and readiness to form a systematic approach to the analysis of medical information, based on the comprehensive principles of evidence-based medicine based on the search for solutions using theoretical knowledge and practical skills in order to improve professional activities.

As a result of studying this discipline, students form the following general professional competencies (elements of competencies).

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (result of development)</b>	<b>Code and name of the indicator of achievement of competence</b>
Diagnostic instrumental examination methods	GPC-4 Able to use medical devices prescribed by the order of medical care, as well as conduct examinations of the patient in order to establish a diagnosis	GPC-4.2 Is able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, assistance taking into account the standards of medical care in order to establish a diagnosis
Etiology and pathogenesis	GPC-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems

<b>Code and name of the indicator of achievement of competence</b>	<b>Name of the assessment indicator (the result of training in the discipline)</b>
GPC-4.2 Is able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, assistance taking into account the standards of medical care in order to establish a diagnosis	<b>Know</b> current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care that determine the use of medical devices, equipment, technologies in order to establish a diagnosis by examining the biochemical composition of blood and biological fluids
	<b>Can</b> use the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care

	that determine the use of medical devices, equipment, technologies in order to establish a diagnosis by examining the biochemical composition of blood and biological fluids
GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems	<b>Owns a skill</b> selection of used medical devices in order to establish a diagnosis in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, assistance taking into account the standards of medical care by examining the biochemical composition of blood and biological fluids
	<b>Knows m</b> Methods of physical, laboratory, instrumental examination of a patient to solve professional problems.
	<b>Can</b> analyze the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems.
	<b>Owns a skill</b> interpretation of data on the state of the human body obtained in the study of the function of human organs and systems in normal and pathological conditions

For the formation of the above competencies within the discipline "Biochemistry" the following active methods are used: practical exercises in the form of a "round table", brainstorming.

## ANNOTATION

The academic discipline "Biology" is intended for 1st year students of the specialty "Medicine" in accordance with the requirements of the Federal State Educational Standard of Higher Professional Education in this specialty.

The discipline "Biology" is included in the main part of the curriculum.

The total labor intensity of mastering the discipline is 6 credits, 216 hours. The curriculum includes lectures (36 hours), practical classes (36 hours), laboratory classes (18 hours), independent work (108 hours). The discipline is implemented in the 1st year in the 1st and 2nd semesters.

"Biology" is a fundamental natural science discipline for students of the specialty "Medicine". It serves as a connecting bridge between school biological training and the upcoming development of the entire complex of modern medical sciences.

The development of this discipline is necessary as a precursor for the disciplines of the natural science and professional cycles of the Federal State Educational Standard of the specialty "Medicine". Being the theoretical basis of medicine in general, biology is of particular importance for the assimilation of such disciplines as anatomy, histology and cytology, physiology, biological chemistry, biophysics, genetics, immunology, the basics of ecology and nature conservation. For students of this specialty, biology is especially important as the fundamental basis of medicine in general.

### **Goals and objectives of the discipline:**

**Target** mastering the discipline "Biology" is to acquaint the student with the basic provisions, laws, concepts of modern biology, to identify current tasks and prospects of biological science. Biology is designed to instill in students a natural-scientific view of medical problems and tasks, to teach them to understand the human body as a physical and chemical system, and the causes of diseases and pathologies as specific material factors, internal or caused by the external environment.

### **Discipline tasks:**

- gaining knowledge about the manifestations of the fundamental properties of living things at the main evolutionary conditioned levels of organization;
- study of the chemical composition of the cell, the structure and functions of proteins, carbohydrates, lipids, nucleic acids;
- understanding the basics of cell theory;
- to prove the physico-chemical essence of life, manifested in the process of metabolism;
- know the essence of genetic information and the mechanism of its implementation (protein biosynthesis) Central dogma of molecular biology; mechanisms of gene activity regulation;
- consider the laws and mechanisms of reproduction of cells (mitosis and meiosis) and organisms based on the replication of genetic information (DNA);
- to study the forms and mechanisms of reproduction of organisms, the periodization of ontogenesis, the features of human ontogenesis;
- consider the laws of genetics and their significance for medicine, the basic patterns of heredity and variability, human hereditary diseases;
- know modern actual hypotheses of the origin of life, basic laws and principles of biological evolution;
- understand the basics of anthropogenesis and anthropogenic evolution of the biosphere, strategic objectives for the conservation of biodiversity and nature protection
- consider the basic laws of the functioning of the biosphere and ecosystems;
- understanding of parasitism as a form of biotic connections; characteristics of the main parasitic representatives of unicellular, flat and round worms, arthropods; knowledge of measures to prevent parasitic diseases.

The content of the discipline covers the range of the most fundamental issues of general biology: manifestations of the fundamental properties of living things at the main evolutionary conditioned levels of organization; chemical composition,



structure and functioning of the cell as an elementary living system; structure and scheme of implementation of genetic information; forms and mechanisms of reproduction of organisms; periodization and mechanisms of ontogenesis; the laws of genetics and their significance for medicine; anthropogenesis and the theory of evolution; basic laws of the biosphere and ecology; parasitism as a form of biotic connections, the main human parasites.

For the successful study of the discipline "Biology", students should have the following preliminary competencies, laid down in the framework of general (school) education:

1. Know the material of the discipline "Biology" at the level of the school course.
3. Be able to logically and competently formulate your thoughts using special terms, the ability to build holistic, coherent and logical statements with the competent use of biological terms and argumentation of your judgments, be able to work with literature and take notes, highlighting the main idea from the information flow.
2. Possess general basic methods of studying the surrounding world, such as observation, experience, analysis; understand the essence of cause and effect relationships.

As a result of studying this discipline, students form the following universal competencies (elements of competencies):

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of universal competence (result of development)</b>	<b>Code and name of the indicator of achievement of competence</b>
Systems and critical thinking	UK-1 Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	UK-1.2 Able to form value judgments in the professional field

<b>Code and name of the indicator of achievement of competence</b>	<b>Name of the assessment indicator (the result of training in the discipline)</b>
UK-1.2 Able to form value judgments in the professional field	<b>Knows</b> fundamental principles of organization and functioning of living systems in general and the human body in particular

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
	<p><b>Can</b> effectively apply the natural science approach in modern medical and biological activities; is able to model biological processes in experimental activities at a basic level.</p>
	<p><b>Capable</b> understanding of the biological essence of medical problems and ideas about modern methods of biomedical research;</p> <p>- the general methodology of natural science and biomedical research: owns the basic principles of observational, experimental, comparative-analytical approaches</p>

As a result of studying this discipline, students form the following general professional competencies (elements of competencies):

Name of the category (group) of universal competencies	Code and name of general professional competence (result of development)	Code and name of the indicator of achievement of competence
Etiology and pathogenesis	GPC-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.1 Knows the patterns of functioning of a healthy human body and the mechanisms for ensuring health from the standpoint of the theory of functional systems; features of the regulation of the functional systems of the human body in pathological processes

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
GPC-5.1 Knows the patterns of functioning of a healthy human body and the mechanisms for ensuring health from the standpoint of the theory of functional	Knows the fundamental causes and patterns of development of diseases in the human body from the standpoint of basic physical, chemical and biological principles
	Able to use knowledge of the molecular and cellular organization of living systems to assess the functional state of the body, including in the diagnosis of pathological processes

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
systems; features of the regulation of the functional systems of the human body in pathological processes	Has the skills to analyze the functioning of living systems at the cellular-organismal and molecular-genetic levels of organization

For the formation of the above competencies within the discipline "Biology" the following methods of active/interactive learning are used:

Lectures:

1. Visualization Lecture
2. Lecture-conversation

Practical lessons:

1. Seminar-dispute
2. Extended conversation
3. Seminar-press conference

## ANNOTATION

The work program of the discipline "Human Anatomy" was developed for students of the 1st and 2nd courses in the 1st, 2nd and 3rd semesters in the direction of 31.05.01 - General Medicine, a form of preparation. The discipline is included in the Block of Basic Disciplines, the capacity is 504 hours (14 credits), lectures - 54 hours, practical classes - 198 hours, independent work of students 252 hours, including 135 hours for exam preparation).

The work program is compiled in accordance with the requirements of the federal state educational standard of higher education (specialist level), approved by order of the Ministry of Education and Science of the Russian Federation dated February 9, 2016 No. 95.

Discipline "Human Anatomy" is the basis for the study of subjects Pathological anatomy, all clinical disciplines related to the diagnosis and treatment of patients.

### **Goals and objectives of the discipline:**

**The goal is:** formation of students' knowledge about the structure of the human body, its individual organs and systems based on modern research methods; the ability to use the acquired knowledge in the subsequent study of other fundamental and clinical disciplines, as well as in the future professional activity of a doctor.

### **The tasks are:**

1. To form students' understanding of the purpose, tasks and methods of human anatomy, their importance in the practice of a doctor.
2. To study the relationship of organs, taking into account the age, gender and individual characteristics of the human body;
3. To study the interdependence of the structure and shape of organs with their functions;
4. Find out the laws of the constitution of the body as a whole and its constituent parts.

For the successful study of the discipline "Human Anatomy", students should have the following preliminary competencies:

- Be able to logically and competently formulate their thoughts using special terms, the ability to build coherent, coherent and logical statements with the competent use of anatomical terms; work on the creation of projects, portfolios, presentations, conduct scientific activities under the guidance of a teacher, work with additional literature.
- Own the simplest methods of studying the world around; the ability to see and understand the environment, navigate in it (ask yourself and others the questions “why?”, “Why?”, “What is the reason?”).

As a result of studying this discipline, students form the following general professional competencies (elements of competencies):

Name of the category (group) of universal competencies	Code and name of general professional competence (result of development)	Code and name of the indicator of achievement of competence
Etiology and pathogenesis	GPC-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.1 Knows the patterns of functioning of a healthy human body and the mechanisms for ensuring health from the standpoint of the theory of functional systems; features of the regulation of the functional systems of the human body in pathological processes

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
GPC-5.1 Knows the patterns of functioning of a healthy human body and the mechanisms for ensuring health from the standpoint of the theory of functional systems; features of the regulation of the functional systems of the human body in pathological processes	<ul style="list-style-type: none"> <li>- methods of anatomical research and anatomical terms (Russian and Latin);</li> <li>- general laws of the structure of the human body, structural and functional relationships of parts of the body;</li> <li>- traditional and modern methods of anatomical research;</li> <li>- anatomical and topographic relationships of organs and parts of the body in an adult, children and adolescents;</li> <li>- basic details of the structure and topography of organs, their systems, their main functions in different age periods;</li> <li>- possible variants of the structure, the main anomalies and malformations of organs and their systems.</li> </ul> <hr/> <ul style="list-style-type: none"> <li>- find and show on anatomical preparations organs, their parts, details of the structure;</li> </ul>

Code and name of the indicator of achievement of competence	Name of the assessment indicator (the result of training in the discipline)
	<ul style="list-style-type: none"> <li>- navigate in the topography and details of the structure of organs on anatomical preparations;</li> <li>-correctly name organs and their parts in Russian and Latin;</li> <li>- find and show organs and the main details of their structure on x-rays;</li> <li>- find and feel the main bone and muscle landmarks on the body of a living person, apply a projection of the main neurovascular bundles of areas of the human body</li> </ul>
	- medical and anatomical conceptual apparatus

To form the above competencies within the framework of the discipline "Human Anatomy", the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training programs, work with dummies and phantoms with the analysis of clinical cases
2. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for laboratory and practical classes, work with additional literature, preparation of abstracts, a lesson-conference.

The proportion of practical classes conducted in interactive forms is 10% of classroom time; independent extracurricular work - 42% of the time

## ANNOTATION

Academic discipline "Histology, Cytology, Embryologyhuman»implemented in the basic part of the curriculum for training a specialist for students in the direction (specialty) 31.05.01 General Medicine.

When developing the working program of the academic discipline usedFederal State Educational Standard of Higher Education, approved by the Ministry of Education and Science of the Russian Federation of February 9, 2016 No. 95 in the specialty 31.05.01 General Medicine (specialist level) and the curriculum in the specialty General Medicine, approved by the FEFU Academic Council.

The labor intensity of the discipline is 288 hours (8 credits), 180 hours - classroom work, of which 72 hours - lectures, 108 hours - practical classes, 54 hours - independent work of students and 54 hours control over independent work of students.

Discipline "Histology, Cytology, Embryologyhuman»is a discipline related to block B1 of the basic part of the educational program in the structure of the general educational program of higher education in the specialty 31.05.01 General Medicine; studied in the second and third semesters. This discipline is an obligatory and important link in the system of biomedical sciences, providing fundamental theoretical knowledge, on the basis of which the training of a future doctor is built. To master the discipline, students use the knowledge, skills and activities mastered in the study of previous disciplines: "Biology", "Latin". Knowledge in the discipline "Histology, Cytology, Embryologyhuman» serve as a theoretical and practical basis for mastering a number of disciplines of the basic part: normal physiology, pathological anatomy, pathological physiology, clinical and laboratory diagnostics, immunology, ophthalmology, forensic medicine, obstetrics and gynecology, etc.

### **Goals and objectives of the discipline:**

#### **Course objective:**

Formation in students of fundamental knowledge, skills and practical skills in cytology, general and particular histology and human embryology, necessary for the successful development of other biomedical and clinical disciplines and the acquisition of professional competencies that contribute to the formation of a specialist.

### **Tasks:**

- the study of the basic patterns of development and life of the human body on the basis of the structural organization of cells, tissues and organs; anatomical-physiological, age-sex and individual features of the structure and development of the human body;
- training in the most important methods for studying morphological structures, which allow identifying organs and determining their tissue elements at the microscopic and ultramicroscopic levels; to recognize changes in the structure of cells, tissues and organs in connection with various biological and protective-adaptive reactions of the body;
- training students in the most important methods of histological research in order to provide a basis for studying clinical disciplines;
- formation of skills of analytical work with information (educational, scientific, reference literature and other sources), with information technologies, diagnostic research methods.

For the successful study of the discipline "Histology, cytology, embryology person" students should have the following preliminary competencies:

- GPC-1 readiness to solve standard tasks of professional activity using information, bibliographic resources, biomedical terminology, information and communication technologies and taking into account the basic requirements of information security;

- GPC-9 ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems;

As a result of studying this discipline, students form the following general professional and professional competencies (elements of competencies):

As a result of studying this discipline, students form the following general professional competencies (elements of competencies):

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (result of development)</b>	<b>Code and name of the indicator of achievement of competence</b>
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Etiology and pathogenesis	GPC-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.1 Knows the patterns of functioning of a healthy human body and the mechanisms for ensuring health from the standpoint of the theory of functional systems; features of the regulation of the functional systems of the human body in pathological processes
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<b>Code and name of the indicator of achievement of competence</b>	<b>Name of the assessment indicator (the result of training in the discipline)</b>
GPC-5.1 Knows the patterns of functioning of a healthy human body and the mechanisms for ensuring health from the standpoint of the theory of functional systems; features of the regulation of the functional systems of the human body in pathological processes	Knows the basic patterns of development and life of the body on the basis of the structural organization of cells, tissues and organs; histofunctional features of tissue elements; methods of their research; structure, topography and development of cells, tissues, organs and systems of the body in interaction with their normal function; age-related features of cells, tissues, organs and systems of the body.
	Able to give histophysiological assessment various cellular, tissue and organ structures, analyze pathological processes in the human body
	Has the ability to compare morphological changes in normal and pathological conditions

## ANNOTATION

The work program of the academic discipline (RPUD) "Normal human physiology" was developed for students in the direction 05/30/01 "General Medicine" in accordance with the requirements of the Federal State Educational Standard of Higher Education in this area, approved by the order of the Ministry of Education and Science of the Russian Federation of February 09, 2016 No. 1121 and the order "On approval of the layout of the working program of the academic discipline for educational programs of higher education - bachelor's, specialist's, master's programs of FEFU" (approved by 05/08/2015 No. 12-13-824). The discipline is basic and is implemented in the 2nd year in the 3rd and 4th semesters. The total labor intensity of mastering the discipline is 8 credits, 288 hours.

The discipline is based on the knowledge of the disciplines of the humanities and social areas, including philosophy, bioethics, psychology and pedagogy, the history of medicine; disciplines of mathematical and natural sciences: physics and mathematics, medical informatics, chemistry, anatomy, histology, cytology, etc. It is a precursor for the study of disciplines: internal medicine, disaster medicine, pathophysiology, pharmacology, etc.

**Target-** to form students' systemic knowledge about the vital activity of the whole organism and its individual parts, about the main patterns of functioning and mechanisms of their regulation in interaction with each other and with environmental factors, about the physiological foundations of clinical and physiological research methods used in functional diagnostics and in the study of integrative human activity.

### **Tasks:**

- Formation of students' skills in analyzing the functions of the whole organism from the standpoint of integral physiology, analytical methodology and fundamentals of medicine
- Formation in students of a systematic approach in understanding the physiological mechanisms underlying the interaction with environmental factors and

the implementation of adaptive strategies of the human body to maintain normal functioning from the standpoint of the concept of functional systems

- The study by students of methods and principles for studying the state of the regulatory and homeostatic systems of the body in laboratory practice and their applicability in clinical practice
- The study by students of the role of higher nervous activity in the regulation of physiological functions of a person and the purposeful management of the body's reserve capabilities in normal and pathological conditions
- Familiarization of students with the basic principles of modeling physiological processes and creating computer models for studying and purposefully controlling body functions
- Formation of the foundations of clinical thinking based on the analysis of the nature and structure of interorgan and intersystem interactions from the standpoint of integrative physiology.

As a result of studying this discipline, students form the following general professional competencies (elements of competencies):

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (result of development)</b>	<b>Code and name of the indicator of achievement of competence</b>
Etiology and pathogenesis	GPC-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.1 Knows the patterns of functioning of a healthy human body and the mechanisms for ensuring health from the standpoint of the theory of functional systems; features of the regulation of the functional systems of the human body in pathological processes

<b>Code and name of the indicator of achievement of competence</b>	<b>Name of the assessment indicator (the result of training in the discipline)</b>
GPC-5.1 Knows the patterns of functioning of a healthy human body and the mechanisms for ensuring health from the	Knows the basic patterns of development and life of the body on the basis of the structural organization of cells, tissues and organs; histofunctional features of tissue elements; methods of their research; structure, topography and development of cells,

standpoint of the theory of functional systems; features of the regulation of the functional systems of the human body in pathological processes	tissues, organs and systems of the body in interaction with their normal function; age-related features of cells, tissues, organs and systems of the body
	Able to give a histophysiological assessment of various cellular, tissue and organ structures, analyze pathological processes in the human body
	Has the ability to compare morphological changes in normal and pathological conditions

For the formation of the above competencies within the discipline "Normal human physiology" the following methods of active / interactive learning are used:

Lectures:

- Visualization Lecture
- Lecture-conversation
- Lecture-press conference

Practical lessons:

- Dispute
- Extended conversation
- Press conference

## ANNOTATION

The discipline "Human Pathological Anatomy" is intended for 3rd year students studying in the direction 31.05.01 "Medicine" and is a mandatory discipline of the basic part of the mathematical and natural science cycle. The labor intensity of the discipline is 7 credits, 252 hours of classroom lessons. The study of the discipline is based on the knowledge acquired as a result of mastering the following disciplines of the PEP: "Biology", "Anatomy", "Physiology", "Histology, Embryology, Cytology", "Latin Language"

The course program is based on the basic knowledge gained by students: the ability for abstract thinking, analysis, synthesis (OK-1);

the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems(GPC-9);

The study of the discipline is based on the knowledge acquired as a result of mastering the following disciplines: "Biology", "Anatomy", "Histology, Embryology, Cytology".

The acquired knowledge and skills are necessary for mastering the disciplines "General Surgery", "Forensic Medicine", "Neurology, Medical Genetics, Neurosurgery", "Obstetrics and Gynecology", "Otorhinolaryngology".

### **Goals and objectives of the discipline:**

**Target**mastering the discipline "Human Pathological Anatomy" is: the study of the structural foundations of diseases and pathological processes, their etiology and pathogenesis, pathomorphological manifestations, complications, outcomes and causes of death to use the acquired knowledge in clinical departments and in the work of a doctor.

### **Tasks:**

- study of cell pathology and general pathological processes, the totality of which determines the morphological manifestations of a particular disease;

• - etiology, pathogenesis and morphology of diseases at different stages of their development (morphogenesis), structural foundations of recovery, complications, outcomes and long-term consequences of diseases;

- - morphology and mechanisms of the processes of adaptation and compensation of the body in response to the impact of pathogenic factors and changing environmental conditions;

- - changes in diseases arising both in connection with changing environmental conditions and treatment (pathomorphosis), and as a result of therapeutic, surgical and diagnostic manipulations (pathology of therapy).

- - pathoanatomical service, its tasks in the healthcare system.

For the successful study of the discipline "Pathological human anatomy" Students should have the following pre-competences:

- readiness to use in practice the methods of the humanities, natural sciences, biomedical sciences in educational activities;

- ability and willingness to identify the natural science essence of problems, analyze the results of natural science, biomedical, improve their professional knowledge and skills;

- ability and readiness to analyze information using a systematic approach, to perceive innovations, to use the received theoretical, methodological knowledge and skills in fundamental natural sciences, biomedical disciplines in educational work.

As a result of studying this discipline, students form the following universal competencies:

Name of the category (group) of universal competencies	Code and name of the universal competence (the result of mastering)	Code and name of the indicator of achievement of competence
Systems and critical thinking	UK-1 Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	UK-1.2 Able to form value judgments in the professional field

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
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UK-1.2 Able to form value judgments in the professional field	Knows the clinical picture, course features and possible complications of the most common diseases that occur in a typical form;
	Able to interpret the results of the examination, make a preliminary diagnosis to the patient, outline the scope of additional studies to clarify the diagnosis; formulate a clinical diagnosis; develop a treatment plan taking into account the course of the disease, select and prescribe drug therapy, use methods of non-drug treatment, carry out rehabilitation measures for diseases, identify life-threatening disorders and provide first aid in emergency situations to victims in lesions in emergency situations;
	Owns the interpretation of the results of laboratory, instrumental diagnostic methods in patients of different ages; an algorithm for making a preliminary diagnosis to patients and, if necessary, with their subsequent referral for additional examination and to specialist doctors;

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Etiology and pathogenesis	GPC-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.2 Able to determine and evaluate the morphofunctional, physiological states and pathological processes of the human body

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-5.2 Able to determine and evaluate the morphofunctional, physiological states and pathological processes of the human body	Knows the etiology, pathogenesis, diagnosis, treatment and prevention of the most common diseases; features of medical care in emergency conditions; modern methods of clinical, laboratory and instrumental diagnosis of patients, general principles and features of the diagnosis of hereditary diseases and congenital anomalies; types and methods of modern anesthesia; ways and methods of prevention of postoperative pulmonary complications; features of intensive care
	Able to collect a complete medical history of the patient,

	<p>conduct a survey of the patient, his relatives (to collect biological, medical, psychological and social information); conduct a physical examination of a patient of different ages (examination, palpation, auscultation, measurement of blood pressure (BP), determination of the characteristics of the pulse, respiratory rate), refer him for laboratory and instrumental examination, for a consultation with specialists; determine the presence of a fracture and dislocation, free gas in the abdominal cavity by radiograph; hydro and pneumothorax, etc.</p>
	<p>Owns an algorithm for making a detailed clinical diagnosis for patients; an algorithm for the implementation of basic medical diagnostic and therapeutic measures to provide first aid to victims in urgent and life-threatening conditions.</p>



## ANNOTATION

Discipline "Pathological physiologyhuman» is intended for students enrolled in the educational program 05/31/01 "Medicine".

The discipline is implemented in the 3rd year in the 5.6 semester, is the basic discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", approved by order of the Ministry of Education and Science of the Russian Federation of 09.02.2016 No. 95, the curriculum for training students, was used.

The total labor intensity of the discipline is 252 hours, 7 credits, of which lectures - 36 hours, practical classes - 126 hours, independent work - 90 hours (exam - 81 hours).

### **Goals and objectives of the discipline:**

**Target** mastering the discipline: the formation of students' ability to effectively solve professional medical problems based on pathophysiological analysis of data on pathological processes, conditions, reactions and diseases using knowledge of the general patterns and mechanisms of their occurrence, development and completion, as well as to formulate principles (algorithms, strategy) and methods for their detection, treatment and prevention.

### **Discipline tasks:**

1. study of molecular, cellular, tissue, organ, systemic and intersystem mechanisms of typical pathological processes;
2. study of the causes, development mechanisms and outcomes of specific diseases developing in individual organs and systems;
3. analysis of the nature of clinical manifestations of the main pathological processes;
4. familiarization with the principles of pathogenetic therapy of diseases of individual organs and systems;

5. to teach the ability to conduct a pathophysiological analysis of data on pathological syndromes, pathological processes, forms of pathology and individual diseases.

As a result of studying this discipline, students form the following universal competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of the universal competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Systems and critical thinking	UK-1 Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	UK-1.2 Able to form value judgments in the professional field

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
UK-1.2 Able to form value judgments in the professional field	Knows the clinical picture, course features and possible complications of the most common diseases that occur in a typical form;
	Able to interpret the results of the examination, make a preliminary diagnosis to the patient, outline the scope of additional studies to clarify the diagnosis; formulate a clinical diagnosis; develop a treatment plan taking into account the course of the disease, select and prescribe drug therapy, use methods of non-drug treatment, carry out rehabilitation measures for diseases, identify life-threatening disorders and provide first aid in emergency situations to victims in lesions in emergency situations;
	Owns the interpretation of the results of laboratory, instrumental diagnostic methods in patients of different ages; an algorithm for making a preliminary diagnosis to patients and, if necessary, with their subsequent referral for additional examination and to specialist doctors;

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
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Etiology and pathogenesis	GPC-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.2 Able to determine and evaluate the morphofunctional, physiological states and pathological processes of the human body
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-5.2 Able to determine and evaluate the morphofunctional, physiological states and pathological processes of the human body	Knows the causes and mechanisms of typical pathological processes of states and reactions, their manifestations and significance for the body in the development of various diseases. Knows the etiology, pathogenesis, manifestations and outcomes of the most common forms of pathology of organs and physiological systems, the principles of their etiological and pathogenetic therapy
	Knows how to use the principles and methods of identifying pathological processes (diseases), treating and preventing them. Able to interpret the results of the most common diagnostic methods.
	He has the skill of analyzing the patterns of functioning of individual organs and systems in normal and pathological conditions. We have the skill of pathophysiological analysis of clinical syndromes, substantiate pathogenetic methods (principles) of diagnosis, treatment, rehabilitation and prevention of diseases.

## ANNOTATION

The discipline "Microbiology, human virology" is intended for students studying under the educational program 31.05.01 - General Medicine, is included in the basic part of the curriculum. The discipline is implemented on 2-3 courses in 4-5 semesters.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for the training of specialists in the specialty 31.05.01 "General Medicine" were used.

The total labor intensity of mastering the discipline is 7 credits, 216 hours, 6 credits. The curriculum provides lectures for 36 hours, laboratory classes for 36 hours, practical classes for 72 hours, independent work of students for 72 hours, of which an exam is 27 hours.

Students develop a conscious understanding of the relationship between microorganism factors and human health, the importance of the environment and the microworld in the development of diseases, which is a necessary prerequisite for studying such disciplines as therapy, surgery, and infectious diseases. Students take an active part in conducting evidence-based and effective therapeutic measures, disease prevention, promotion of a healthy lifestyle.

A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline.

The content of the discipline covers modern issues of general microbiology, private microbiology, clinical microbiology, sanitary microbiology. The general part of microbiology is represented by the history of the subject, the general courses of bacteriology, virology, the theory of infection, including chemotherapy, and the ecology of microorganisms. A private course in microbiology includes the study of individual nosological forms of infectious diseases: etiology, pathogenesis, epidemiology, clinic, prevention (course of bacteriology, virology, mycology, protozoology).

The discipline "Microbiology, human virology" is logically and meaningfully connected with such courses as general and inorganic chemistry, organic chemistry, analytical chemistry, biology, botany, physiology with the basics of anatomy, pathology.

**Goals and objectives of the discipline:**

**aim** studying the discipline of microbiology, virology is the formation of students' medical thinking, based, among other things, on knowledge of the biological properties of microorganisms, their role in the development of diseases and the formation of immunity; application of modern methods for diagnosing infectious diseases, biological preparations for the specific prevention and treatment of human infectious diseases.

**Tasks** microbiology, virology as a specialized academic discipline:

1. Acquisition of theoretical knowledge in the field of taxonomy and nomenclature of microorganisms, their morphology, physiology, identification, role in nature, in infectious and non-infectious human pathology.

2. Obtaining knowledge on the mechanisms of interaction of microbes with the human body, the features of the pathogenesis of infectious diseases; methods of microbiological diagnostics, the principles of etiotropic treatment and specific disease prevention, the use of basic antibacterial, antiviral and biological drugs.

3. Formation in students of a systematic approach to the analysis of scientific medical information, including the results of identification of pure cultures of aerobic and anaerobic microorganisms from the material under study, microphotograms of biological objects and the perception of innovations based on knowledge about the characteristics of the biological properties of pathogens.

As a result of studying this discipline, students form the following general cultural and professional competencies (elements of competencies).

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Diagnostic instrumental examination methods	OPK-4. Able to use medical devices provided for by the order of medical care, as well as conduct examinations of the patient in order to establish a diagnosis	GPC-4.2. Able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care, taking into account the standards of medical care in order to establish a diagnosis
Etiology and pathogenesis	OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.2 Able to determine and evaluate the morphofunctional, physiological states and pathological processes of the human body GPC-5.4. Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-4.2. Able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care, taking into account the standards of medical care in order to establish a diagnosis	Virulence factors of a microorganism, their role in the development of the pathological process
	Determine the source of infection, the type of microorganism, its degree of danger, the route of transmission and the conditions for the onset of the infectious process.
	Skills to ensure safety and protection against pathogenic and opportunistic microorganisms
GPC-5.2 Able to determine and evaluate the morphofunctional, physiological states and pathological processes of the human body	Knows the basic methods of microbiological research to identify and evaluate morphofunctional, physiological conditions, as well as pathological processes occurring in the human body
	Able to use the basic methods of microbiological research of various biological objects. Able to evaluate the results of laboratory, instrumental, pathoanatomical

	and other studies in order to recognize a condition or establish the presence or absence of a disease
	Owns the algorithm of clinical and laboratory microbiological diagnostics in solving professional problems
GPC-5.4. Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems	Knows the basic principles of physico-chemical, morphological, physiological concepts and methods in solving professional problems
	Knows how to use specialized diagnostic and treatment equipment, apply medical devices, medicines, cell products and genetic engineering technologies provided for by the procedures for providing medical care
	Possesses diagnostic skills morphofunctional, physiological conditions and pathological processes in the human body

## ANNOTATION

Discipline "Immunologyhuman» is intended for students enrolled in the educational program "Medicine", is included in the basic part of the curriculum. The discipline is implemented in the 3rd year, is the main discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education (the level of training of highly qualified personnel) in the specialty 31.05.01 was used. "Medicine" (the level of training of highly qualified personnel)", the curriculum for preparing students for the OPOP "Medicine". The total labor intensity of the discipline is 144 hours, 4 credits.

The course program is based on the basic medical knowledge gained by specialists:

PC - 3 ability and readiness to carry out anti-epidemic measures, organize the protection of the population in foci of especially dangerous infections, in case of deterioration of the radiation situation, natural disasters and other emergencies

PC - 16 readiness for educational activities to eliminate risk factors and the formation of healthy lifestyle skills

### **Goals and objectives of the discipline:**

The purpose of the course: mastering the knowledge of the general patterns of development, structure and function of the body's immune system in normal conditions and in diseases caused by impaired immune mechanisms, as well as the basic principles of diagnosis and treatment of human immune-mediated diseases.

Tasks:

1. The acquisition by students of knowledge about the main structural and functional features of the immune system.

2. The acquisition by students of knowledge about the causes of development, immunopathogenesis and clinical manifestations of the main immunodeficiency, allergic and other diseases of the immune system.



3. Teaching students the most important methods for assessing the immune status using modern molecular genetic, immunological and cellular technologies; to detect defects in the immune system.

4. Formation of ideas about the leading role of immunogenetic factors in the development and functioning of the immune system, the development of immunopathologies.

5. Formation of approaches to the establishment of an immune diagnosis and the development of tactics for the treatment and prevention of diseases of the immune system.

To solve these problems, a course of thematic lectures, laboratory and practical exercises are planned.

As a result of studying this discipline, students form the following professional competencies.

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Diagnostic instrumental examination methods	OPK-4. Able to use medical devices provided for by the order of medical care, as well as conduct examinations of the patient in order to establish a diagnosis	GPC-4.2. Able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care, taking into account the standards of medical care in order to establish a diagnosis
Etiology and pathogenesis	OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems.
		GPC-5.4. Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by

		specialist doctors to solve professional problems
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-4.2. Able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care, taking into account the standards of medical care in order to establish a diagnosis	Knows the theoretical foundations in the field of fundamental immunology
	Able to predict the course and outcome of major immunological, allergic diseases
	Owens immunological methods of laboratory diagnostics in order to establish a diagnosis
GPC-5.3 Owens the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems.	Knows the algorithms of immunological clinical and laboratory diagnostics
	Able to analyze and interpret data obtained by immunological and serological diagnostic methods
	Knows the rules for taking biological material to assess the state of the immune system
GPC-5.4. Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems	Knows the features of the development of the immune system in normal and pathological conditions, the mechanisms of the pathogenesis of diseases of the immune system
	Able to assess the leading role of immunogenetic factors in the development and functioning of the immune system
	Owens the algorithm of physical examination, clinical laboratory, instrumental diagnostics

## ANNOTATION

The discipline "General Surgery" is intended for students enrolled in the educational program 31.05.01 "General Medicine", is included in the basic part of the curriculum as a module of the basic discipline "Surgery", is implemented in the 3rd year in semesters 5 and 6. The total labor intensity of the discipline is 288 hours, 8 credits

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" (specialist level of training), the curriculum for preparing students were used.

The course program is based on the basic knowledge gained by students: the ability for abstract thinking, analysis, synthesis (OK-1);

willingness to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies and taking into account the basic requirements of information security (OPK-1);

### **Goals and objectives of the discipline:**

**aim** Mastering the discipline of General Surgery is: to teach students the theoretical and practical foundations of surgical activities necessary for a doctor of any specialty.

**Tasks** disciplines: to teach students to purposefully find out the patient's complaints and the history of the development of surgical diseases. Conduct a physical examination of the surgical patient (examination, palpation, percussion, auscultation). Organize surgical activities in compliance with the rules of asepsis in the premises of a surgical hospital and polyclinic, in intensive care units and intensive care units. Fundamentals of compiling an infusion-transfusion therapy program, rules for the transfusion of blood components, prevention and treatment of post-transfusion complications and reactions. Basic principles of local and general anesthesia, cardiopulmonary resuscitation. Principles of diagnosis and treatment of benign and malignant tumors, management of patients in the pre- and postoperative

period. General principles for the treatment of wounds, surgical infection of soft tissues, bones and joints, necrosis and gangrene, ulcers, fistulas and bedsores. Work as nursing staff in surgical hospitals, perform standard diagnostic and therapeutic procedures (including skills in general care of surgical patients).

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Etiology and pathogenesis	OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems.
Treatment of diseases and conditions	OPK-7 Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.1 Be able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-7.1 Be able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.	Knows the theoretical foundations in the field of fundamental immunology
	Able to predict the course and outcome of major immunological, allergic diseases
	Owns immunological methods of laboratory diagnostics in order to establish a diagnosis
GPC-7.1	Knows the algorithms of immunological clinical and

Be able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.	laboratory diagnostics
	Able to analyze and interpret data obtained by immunological and serological diagnostic methods
	Knows the rules for taking biological material to assess the state of the immune system

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Medical	PC-4 Readiness to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care.	PC-4.1 To be able to collect complaints, anamnesis of life and illness of the patient and analyze the information received.
		PC-4.2 Be able to conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation) and interpret its results in order to establish a diagnosis

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-4.1 To be able to collect complaints, anamnesis of life and illness of the patient and analyze the information received. PC-4.1 To be able to collect complaints, anamnesis of life and illness of the patient and analyze the information received.	Knows the technique of questioning the patient, collecting complaints, anamnesis of the disease and the life of the patient_
	Able to analyze the information received from the patient and, on its basis, draw a conclusion about the nature of the pathological process
	He owns the technique of questioning the patient, collecting complaints, anamnesis of the disease and the patient's life, the skill of analyzing and interpreting the information received to determine the nature of the disease and the direction of the patient's examination.

PC-4.2 Be able to conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation) and interpret its results in order to establish a diagnosis	Knows the technique of a complete physical examination of the patient (examination, palpation, percussion, auscultation)
	Able to analyze the information obtained during a complete physical examination of the patient and, on its basis, draw a conclusion about the nature of the pathological process
	Owns the technique of a complete physical examination of the patient (examination, palpation, percussion, auscultation), the skill of analyzing and interpreting the information received to determine the nature of the disease and the direction of the patient's examination

For the formation of the above competencies within the discipline "General Surgery" the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training programs, work with dummies and phantoms with the analysis of clinical cases
2. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts.
3. Active and interactive forms of conducting classes (IT methods):
  - a. analysis of real clinical situations (case-study);
  - b. solution of clinical situational problems (case-study);
  - c. use of interactive atlases on surgical diseases.
  - d. analysis of real clinical situations;

The proportion of clinical practical classes conducted in interactive forms is 10% of classroom time; independent extracurricular work - 10% of the time

## ANNOTATION

The discipline "Topographic anatomy and operative surgery" is intended for students enrolled in the educational program 31.05.01 "General Medicine".

The discipline is implemented on the 3-4 course, is the basic discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students were used.

The total labor intensity of the discipline is 252 hours, 7 credits.

The course program is based on the basic knowledge gained by students:

- ability for abstract thinking, analysis, synthesis (OK-1);
- willingness to solve standard tasks of professional activity using information, bibliographic resources, biomedical terminology, information and communication technologies and taking into account the basic requirements of information security (OPK-1);

### **Goals and objectives of the discipline:**

#### **Course objective:**

Formation in students knowledge of topographic anatomy and operative surgery, division of the human body into areas, study of the main neurovascular bundles of each area, identification of the main symptoms of organ damage, study of surgical instruments and its use in performing major surgical interventions.

#### **Tasks:**

1. Study of the role of topographic anatomy and operative surgery in medicine, development of topographic anatomy abroad and in Russia, connection with clinical anatomy
2. Studying the equipment of a typical operating room, instruments, modern methods of surgical interventions. Modern methods of anesthesia.
3. The study of the layered structure of areas of the human body, methods of connection and separation of tissues, operational access, operational reception. Modern surgical instruments.

4. The study of the topographic anatomy of the upper and lower extremities, head, neck, chest, abdominal cavity, retroperitoneal space and pelvis. The study of the main surgical interventions in each of the listed areas, the special surgical instruments used in these interventions.

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Diagnostic instrumental examination methods	OPK-4. Able to use medical devices provided for by the order of medical care, as well as conduct examinations of the patient in order to establish a diagnosis	GPC-4.1 Able to use medical devices provided for by the order of medical care
Etiology and pathogenesis	OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.2 Able to determine and evaluate morphofunctional, physiological states and pathological processes of the human body

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-4.1 Able to use medical devices provided for by the order of medical care	Knows the basic surgical instruments and their purpose
	Able to use basic surgical instruments to perform dressing manipulations
	Possesses the skill of dressings and treatment of wounds using basic surgical instruments
GPC-5.2 Able to determine and evaluate morphofunctional, physiological states and pathological processes of the human body	Knows the basics of the structure and functioning of organs and systems of the human body to solve professional problems
	Knows how to determine the localization of the organs of the human body and the most important anatomical formations for solving professional problems
	He owns the methods of examining a patient,



	determining the localization of the organs of the human body, methods of studying the main physiological functions for solving professional problems
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As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Medical	PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	Knows the technique of performing dressing manipulations, primary surgical treatment and basic surgical interventions on various areas of the human body.
	Able to perform dressings and primary surgical treatment of wounds
	Possesses the skill of determining the optimal surgical approach for operations on various parts of the body

For the formation of the above competencies within the discipline "Topographic anatomy and operative surgery" the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training programs.

2. Practicing practical skills on dummies (imposition of various types of skin sutures, removal of sutures, suture of vessels according to Carrel, imposition of interintestinal anastomoses, suturing wounds of the large and small intestine, puncture of the joints)
3. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts, a lesson-conference.

The proportion of practical classes conducted in interactive forms is 10% of classroom time; independent extracurricular work - 33% of the time.

## ANNOTATION

The discipline "Faculty Surgery, Urology" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the basic part of the curriculum as a module of the basic discipline "Surgery", is implemented in the 4th year in semesters 7 and 8. The total labor intensity of the discipline is 252 hours, 7 credits

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" (specialist level of training), the curriculum for preparing students were used.

The course program is based on the basic knowledge gained by students:

Willingness to use first aid techniques, methods of protection in emergency situations (OK-7);

Willingness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems (OPK-7);

Ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (GPC-9);

### **Goals and objectives of the discipline:**

**aim** mastering the discipline "Faculty Surgery, Urology" is: the formation of students' basic knowledge and skills that allow them to diagnose, treat and provide emergency care for major surgical diseases of various age groups; develop clinical thinking, educate professionally significant personality traits.

### **Tasks** disciplines:

- teaching students the principles of organization and work of the surgical and urological departments;
- mastering the etiology, pathogenesis, clinical signs, treatment and prevention of surgical and urological diseases by students;
- mastering by students the principles of diagnosing surgical and urological diseases that cause life-threatening complications and concomitant diseases;

- training students in the correct formulation of a preliminary diagnosis and referral of a patient for examination;
- training students in the diagnosis of acute pathology in surgical and urological patients;
- the formation of students' skills to provide first aid to patients with injuries and wounds in peacetime
- teaching students to provide first aid to patients with injuries and wounds in peacetime.

As a result of studying this discipline, students form the following general professional competencies:

Name of the category (group) of universal competencies	Code and name of general professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Etiology and pathogenesis	OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
Treatment of diseases and conditions	OPK-7 Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods
		GPC-7.2 Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems	Knows the methods of physical examination, clinical and laboratory, instrumental diagnostics in the main nosological forms of surgical and urological diseases and their complications
	Able to apply the methods of physical examination, clinical laboratory, instrumental diagnostics in the main nosological forms of surgical and urological diseases and their complications
	Possesses the skill of a standard examination of a patient using methods of physical examination, clinical laboratory, instrumental diagnostics in the main nosological forms of surgical and urological diseases and their complications
GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods	Knows the morphological and functional features and patterns of development of pathological processes in the main nosological forms of surgical and urological diseases and their complications, the principles of their treatment.
	Able to draw up an examination plan and carry out diagnostic measures for the main nosological forms of surgical and urological diseases and their complications, determine indications for prescribing conservative and surgical treatment, draw up a treatment plan for the identified pathology
	Able, on the basis of the obtained examination data, to conduct differential diagnostics for the main nosological forms of surgical and urological diseases and their complications, formulate the final diagnosis, determine and prescribe the necessary therapeutic measures for the identified pathology
GPC-7.2 Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data	Knows the value of information obtained by methods of clinical, laboratory and instrumental examination in the main nosological forms of surgical and urological diseases and their complications, for assessing and monitoring the patient's condition, therapeutic effect and side effects when prescribing drugs and performing surgical procedures and surgical interventions
	Able to use the information obtained by methods of clinical, laboratory and instrumental examination in the main nosological forms of surgical and urological diseases and their complications, to assess and monitor the patient's condition, therapeutic effect and side effects of drugs, as well as ongoing surgical procedures and surgical interventions

	Able, based on information obtained by methods of clinical, laboratory and instrumental examination in the main nosological forms of surgical and urological diseases and their complications, to evaluate and control the therapeutic effect and side effects of drugs, as well as ongoing surgical procedures and surgical interventions.
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As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors
		PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care
	PC-5 Capable of making a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)	PC-5.1 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs
		PC-5.2 Able to carry out early diagnosis of diseases of internal organs

	<p>PC-7 Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
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Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
<p>PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors</p>	<p>Knows clinical guidelines and standards that determine the need and scope of laboratory and instrumental examinations for the main nosological forms of surgical and urological diseases and their complications, determining the need to refer these patients for consultations to specialist doctors</p>
	<p>Knows how to use clinical guidelines and standards that determine the need and scope of laboratory and instrumental examinations in the main nosological forms of surgical and urological diseases and their complications, determining the need to refer these patients for consultations to specialist doctors</p>
	<p>Able to substantiate the need and prescribe laboratory and instrumental studies for the main nosological forms of surgical and urological diseases and their complications, the need to refer these patients for consultations to specialist doctors in accordance with clinical recommendations and standards of medical care</p>
<p>PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care</p>	<p>Knows the sequence, volume, content and sequence of diagnostic measures for the main nosological forms of surgical and urological diseases and their complications, taking into account the standards of medical care</p>
	<p>Able to determine the sequence, volume, content and sequence of diagnostic measures for the main nosological forms of surgical and urological diseases and their complications, taking into account the standards of medical care</p>
	<p>Able to draw up an examination plan that determines the sequence, volume, content and sequence of diagnostic measures for the main nosological forms of surgical and urological diseases and their</p>

	complications, taking into account the standards of medical care.
PC-5.1 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs	<p>Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of the main nosological forms of major surgical and urological diseases.</p> <p>Able to formulate a preliminary and clinical diagnosis based on the clinical picture and the characteristics of the course of the pathological process, to carry out differential diagnosis of the main surgical and urological diseases</p> <p>Based on the clinical picture and the characteristics of the course of the pathological process, he is able to predict its development, the occurrence of complications and the outcome of major surgical and urological diseases.</p>
PC-5.2 Able to carry out early diagnosis of diseases of internal organs	<p>Knows the methodology of a complete physical, laboratory and instrumental examination in the main nosological forms of surgical and urological diseases and their complications</p> <p>Able to analyze information obtained as a result of a complete physical, laboratory and instrumental examination in the main nosological forms of surgical and urological diseases and their complications.</p> <p>Owens the methodology of a complete physical, laboratory and instrumental examination in the main nosological forms of surgical and urological diseases and their complications, the skill of analyzing and interpreting the information received to determine the nature of the disease and the direction of the patient's examination</p>
PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	<p>Knows the main groups of drugs, medical products and clinical nutrition used in the main nosological forms of surgical and urological diseases and their complications, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on issues provision of medical care, taking into account the standards of medical care</p> <p>Able to apply the main groups of drugs, medical devices and clinical nutrition in the main nosological forms of surgical and urological diseases and their complications, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>



	Able to draw up a treatment plan and prescribe the main groups of drugs, medical devices and clinical nutrition for the main nosological forms of surgical and urological diseases and their complications, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols ) on the provision of medical care, taking into account the standards of medical care
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For the formation of the above competencies within the discipline "Faculty surgery, urology" the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training programs, work with dummies and phantoms with the analysis of clinical cases
2. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts.
3. Active and interactive forms of conducting classes (IT methods):
  - a. analysis of real clinical situations (case-study);
  - b. solution of clinical situational problems (case-study);
  - c. use of interactive atlases on surgical diseases.
  - d. analysis of real clinical situations;

The proportion of clinical practical classes conducted in interactive forms is 10% of classroom time; independent extracurricular work - 10% of the time

## ANNOTATION

The discipline "Hospital Surgery, Pediatric Surgery" is intended for students enrolled in the educational program 31.05.01 "General Medicine".

The total labor intensity of the discipline is 324 hours, 9 credits.

Hospital surgery, pediatric surgery is the basic discipline of the "Surgery" module, implemented in 5-6 courses in semesters 9, 10 and 11 and ends with an exam.

The curriculum provides for lectures in the amount of 46 hours, practical classes - 134 hours, and hours for independent work - 144 hours. Online course not provided.

The language of the program implementation is Russian.

The course program is based on the basic knowledge gained by students:

ability for abstract thinking, analysis, synthesis (OK-1);

willingness to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies and taking into account the basic requirements of information security (OPK-1).

### **Goals and objectives of the discipline:**

#### **Course objective:**

Formation in students knowledge on prevention, diagnosis, differential diagnosis of major surgical diseases and their most frequent complications, the ability to draw up a plan for conservative and surgical treatment, develop a set of measures for the rehabilitation of the patient, assess his ability to work, dispensary features.

#### **Tasks:**

1. study of the basic principles of diagnostic and therapeutic activities in surgery.
2. mastering the basics of clinical examination of surgical patients and the skills of self-management of patients
3. familiarization with the semiotics of the main types of surgical diseases
4. mastering the methods of first aid for surgical diseases, injuries.

5. to study the principles of diagnosis and differential diagnosis of surgical diseases in their typical and atypical manifestations, as well as in complicated forms of pathology
6. master the skills of interpreting the results of special research methods
7. be able to choose a method of treatment and prevention, as well as drawing up a plan of rehabilitation measures for major surgical nosologies
8. master the skills of maintaining medical records

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Etiology and pathogenesis	OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
Treatment of diseases and conditions	OPK-7 Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.2 Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems	Knows the methods of physical examination, clinical and laboratory, instrumental diagnostics in patients with a surgical profile in solving professional problems
	Able to apply the methods of physical examination, clinical and laboratory, instrumental diagnostics in patients with a surgical profile in solving professional problems

	Possesses the skill of a standard examination of a patient using methods of physical examination, clinical and laboratory, instrumental diagnostics in patients with a surgical profile in solving professional problems
<p>GPC-7.2</p> <p>Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data</p>	Knows clinical symptoms, indicators of laboratory and instrumental diagnostics, allowing to evaluate and control the therapeutic effect, side effects of prescribed drugs, as well as other therapeutic agents and methods.
	Able to interpret the data of clinical, laboratory and instrumental examination of a surgical patient to assess and control the therapeutic effect, side effects of prescribed drugs, as well as other therapeutic agents and methods.
	Has the skill to use the data of clinical, laboratory and instrumental examination of a surgical patient to assess and control the therapeutic effect, side effects of prescribed drugs, as well as other therapeutic agents and methods.

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Medical	<p>PC-4</p> <p>Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-4.4</p> <p>Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care</p>
		<p>PC-4.5</p> <p>Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results</p>
		<p>PC-4.6</p> <p>Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>

	<p>PC-5 Capable of making a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)</p>	<p>PC-5.3 Able to carry out differential diagnosis of diseases of internal organs from other diseases</p>
		<p>PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis</p>
	<p>PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
		<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

	<p>PC-8 Ready to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-8.1 Knows modern methods of non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for providing</p>
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
<p>PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care one hundred</p>	<p>Knows the volume of necessary diagnostic measures, their content and sequence of implementation when examining patients with acute and chronic surgical pathology, taking into account the standards of medical care</p>
	<p>Able to determine the necessary diagnostic measures, their content and sequence of performance in the examination of patients with acute and chronic surgical pathology, taking into account the standards of medical care</p>
	<p>Able to draw up a plan of diagnostic measures for the examination of patients with acute and chronic surgical pathology, taking into account the standards of medical care</p>
<p>PC-4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results</p>	<p>Knows the methods of clinical and laboratory, instrumental diagnostics for assessing the health status of surgical patients, medical indications for research, the rules for interpreting their results</p>
	<p>Able to apply methods of clinical, laboratory, instrumental diagnostics to assess the health status of surgical patients, medical indications for research, rules for interpreting their results</p>

	Possesses the skill of a standard examination of a patient using methods of clinical laboratory, instrumental diagnostics to assess the health status of surgical patients, medical indications for the study, rules for interpreting their results
PC-4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care	Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care for patients with acute and chronic surgical pathology
	Knows how to use the procedures for providing medical care, clinical guidelines (treatment protocols) on the provision of medical care, standards of medical care in order to plan medical care for patients with acute and chronic surgical pathology
	Able to apply the procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care for the appointment of therapeutic measures for patients with acute and chronic surgical pathology.
PC-5.3 Able to carry out differential diagnosis of diseases of internal organs from other diseases	Knows the symptoms of the most common surgical diseases and the principles of differential diagnosis of surgical diseases
	Able to identify similar symptoms and clinical differences of surgical diseases for the purpose of differential diagnosis
	Able to carry out differential diagnosis of the most common surgical diseases and the principles of differential diagnosis of surgical diseases.
PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis	Knows the methodology for determining the main pathological conditions, symptoms, syndromes of surgical diseases, nosological forms in patients with surgical pathology in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision
	Is able to determine the main pathological conditions, symptoms, syndromes of surgical diseases, nosological forms in patients in

	<p>accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision</p>
	<p>Owns the methodology for identifying the main pathological conditions, symptoms, syndromes of surgical diseases, nosological forms in patients in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision</p>
<p>PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows modern methods of treatment of surgical patients, the mechanism and features of their impact on the patient's body</p>
	<p>Knows how to choose medicines, medical devices and clinical nutrition for the treatment of surgical patients, using the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>
	<p>Able to administer medicines, medical devices and medical nutrition in patients with surgical pathology in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows the principles of planning the treatment of surgical patients, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>Knows how to plan the use of medicines, medical devices and medical nutrition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on</p>



	the provision of medical care, taking into account the standards of medical care
	Able to determine the goals of therapeutic measures for patients with surgical pathology and draw up a treatment plan taking into account the diagnosis, age of patients, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care
PC-8.1	Knows modern methods of non-drug treatment of surgical patients, the mechanism and features of their impact on the patient's body
Knows modern methods of non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for providing	Knows how to choose methods of non-drug treatment of surgical patients in accordance with the current procedures for the provision of medical care
	Able to apply methods of non-pharmacological treatment of surgical patients in accordance with the current procedures for the provision of medical care

For the formation of the above competencies within the discipline "Hospital Surgery, Pediatric Surgery" the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training programs.
2. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts, a lesson-conference.

The proportion of practical classes conducted in interactive forms is 10% of classroom time; independent extracurricular work - 33% of the time.

1. It is planned to conduct practical classes using computer training programs.
2. To organize independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for

practical exercises, work with additional literature, preparation of abstracts, a lesson-conference.

The share of practical classes conducted in interactive forms is 25% of classroom time; independent extracurricular work - 30% of the working time.

## **ANNOTATION**

The discipline "Military Surgery" is intended for students enrolled in the educational program 31.05.01 "General Medicine".

The total labor intensity of the discipline is 72 hours, 2 credits.

"Military field surgery" is a basic discipline, implemented in the 5th year and ends with a test.

The curriculum provides for lectures in the amount of 8 hours, practical classes - 28 hours, and hours for independent work - 36 hours. Online course not provided.

The language of the program implementation is English.

### **I. GOALS AND OBJECTIVES OF THE DISCIPLINE.**

#### **Course objective:**

Formation of students' knowledge of military field surgery, the general principles of organizing the provision of surgical care to the wounded in wartime conditions at the stages of medical evacuation; diagnostic methods, goals and types of sorting of victims of mass lesions; methods and types of medical care for victims at the stages of medical evacuation; clinic, diagnosis and treatment of modern gunshot wounds, combined and thermal injuries, closed injuries, wound infection, traumatic shock, toxicosis and massive blood loss.

#### **Tasks:**

1. Studying the basics of organizing surgical care at the stages of medical evacuation.
2. Studying the volume of assistance at the stages of medical evacuation.
3. The study of methods for diagnosing wartime damage.
4. The study of methods and types of medical sorting of the wounded.
5. The study of techniques and methods of providing medical care to victims in the scope of first aid in emergency situations.

Competences of students, indicators of their achievement and learning outcomes in the discipline "Military Surgery".

Medical	Code name of the competence (the result of mastering)	Code and name of the indicator of achievement of competence	Name of the indicator of assessment (the result of training in the discipline)
Life safety	<p style="text-align: center;">UC 8</p> <p>Able to create and maintain safe living conditions in everyday life and in professional activities to preserve the natural environment, ensure the sustainable development of society, including in the event of a threat and the occurrence of emergencies and military conflicts</p>	<p>UC 8.5 Proficient in the use of personal and collective protective equipment and first aid equipment</p>	<p>Knows the classification and principle of the protective action of individual and collective protective equipment, standard first aid equipment.</p> <p>Knows how to use personal and collective protective equipment, first aid equipment in case of threat and emergency situations and military conflicts.</p> <p>Possesses the ability to use personal and collective protective equipment, first aid, both in everyday life and in case of threat and emergency situations and military conflicts.</p>
		<p>UC 8.6 Able to provide first aid to victims</p>	<p>Knows the basics of providing first aid and medical care to victims; pathology, clinic and treatment of lesions with toxic chemicals and ionizing radiation.</p> <p>Able to provide first aid in the lesions and at the stages of medical evacuation.</p> <p>Owns first aid techniques for life-threatening conditions for victims in emergencies and military conflicts.</p>
Life safety	<p style="text-align: center;">PC 1</p> <p>Ready to participate in the provision of medical care in urgent or emergency forms</p>	<p>PC 1.5 Knows the methods of physical examination of patients (examination, palpation, percussion, auscultation)</p>	<p>Knows the basic and additional methods of examining patients, the methodology of physical examination (examination, palpation, percussion, auscultation).</p> <p>Able to conduct a physical examination, assess the condition of patients of different ages.</p> <p>Possesses the skills of physical examination and the ability to assess the patient's condition to make a decision on the need to provide him with medical care</p>

## ANNOTATION

The discipline "Basic Nursing" is intended for students enrolled in the educational program 31.05.01 "Medicine", is a mandatory discipline of the mandatory part of the curriculum. It is implemented on the 1st course in the 1st and 2nd semester.

When developing the working program of the discipline, the Federal State Educational Standard of Higher Education (the level of training of highly qualified personnel) in the specialty 31.05.01 "General Medicine" (the level of training of highly qualified personnel)", the curriculum for training students in the profile of General Medicine, was used.

The total labor intensity of the discipline is 288 hours, 4 credit units (lectures - 36 hours, practical classes - 72 hours, independent work of students - 198 hours, exam - 27 hours).

The course program is based on the basic knowledge acquired by students in the framework of the secondary school program.

### **Goals and objectives of the discipline.**

**Course objective:** obtaining professional basic knowledge, skills and abilities necessary to perform nursing manipulations.

### **Tasks:**

- Identification of problems related to the health status of a patient of different ages.
- Planning and implementation of planned and emergency nursing activities using all modern methods.
- Organization and implementation of nursing care.
- Carrying out quality control and effectiveness of nursing activities.
- Compliance with the principles of ethics and deontology.

As a result of studying this discipline, students form the following general professional competencies:

Name of the category (group) of	Code and name of general professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
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<b>universal competencies</b>		
Ethical and legal foundations of professional activity	OPK-1. Able to implement moral and legal norms, ethical and deontological principles in professional activities	GPC-1.1. Be able to observe the moral and legal foundations in professional activities.
		GPC-1.2 Know the legislation of the Russian Federation in the field of health care, regulations and other documents that determine the activities of medical organizations and medical workers, general issues of organizing medical care for the population
Diagnostic instrumental examination methods	OPK-4. Able to use medical devices provided for by the order of medical care, as well as conduct examinations of the patient in order to establish a diagnosis	GPC-4.1 Be able to use medical devices provided for by the order of medical care
		GPC-4.2. Be able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care, taking into account the standards of medical care in order to establish a diagnosis
Primary Health Care	OPK-6. Able to organize patient care, provide primary health care, ensure the organization of work and the adoption of professional decisions in emergency conditions at the prehospital stage, in emergency situations, epidemics and in centers of mass destruction	GPC-6.1. Own an algorithm for the timely detection of life-threatening disorders and is able to assess the patient's condition to make a decision on the need for first aid at the prehospital stage
		GPC-6.2. To master the algorithm for providing first aid at the prehospital stage in case of emergency, including the skills of performing basic cardiopulmonary resuscitation

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-1.1. Be able to observe the moral and legal foundations in professional activities.	Knows the norm of behavior when examining a patient, ethics, deontology when talking with a patient and his relatives

	Able to follow the rules of conduct when working with a team. Respect confidentiality when getting acquainted with the data of the patient's health status, the results of additional examination methods
	Owens the rules of etiquette, keep medical secrets
GPC-1.2 Know the legislation of the Russian Federation in the field of health care, regulations and other documents that determine the activities of medical organizations and medical workers, general issues of organizing medical care for the population	Knows the principles of organizing patient care and providing primary pre-hospital health care
	Ability to manage patient care
	Has the skills to organize patient care and provide primary pre-hospital health care
GPC-4.1 Be able to use medical devices provided for by the order of medical care	Knows medical devices and products for patient care, provided for by the procedure for providing medical care
	Able to use medical devices and products for patient care, n provided for by the procedure for providing medical care
	Possesses the skill of caring for patients using medical devices and products in accordance with the procedures for providing medical care
GPC-4.2. Be able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care, taking into account the standards of medical care in order to establish a diagnosis	Knows the procedures for the use of medical devices and products for patient care,
	Able to organize patient care in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care
	Possesses the skill of organizing patient care in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care
GPC-6.1. Own an algorithm for the timely detection of life-threatening disorders and is able to assess the patient's condition to make a decision on the need for first aid at the prehospital stage	Knows the manifestations of life-threatening disorders of the patient's condition
	Able to identify life-threatening disorders of the patient's condition
	Able to provide first aid in case of life-threatening violations of the patient's condition
GPC-6.2. Master the algorithm for providing first aid at the prehospital stage	Knows the principles of medical care in emergency conditions, including the skills of performing basic cardiopulmonary

in case of emergency, including the skills of basic cardiopulmonary resuscitation	resuscitation
	Able to provide medical care in emergencies, including basic cardiopulmonary resuscitation skills
	Possesses the skills to provide medical care in emergencies, including the skills to perform basic cardiopulmonary resuscitation

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-9 Capable of evaluating the efficacy and safety of the use of drugs, medical devices, clinical nutrition and other methods of treatment	PC-9.2 Able to evaluate the effectiveness and safety of the use of medicines, medical devices and clinical nutrition
Type of tasks of professional activity: organizational and managerial	PC-18 Able to monitor the performance of duties by a nurse and other medical workers at their disposal	PC-18.1 Knows the duties of a district nurse and other medical workers at the disposal
		PC-18.2 Is able to control the performance of duties by a district nurse and other medical workers at their disposal

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-9.2 Able to evaluate the effectiveness and safety of the use of medicines, medical devices and clinical nutrition	Knows the action and side effects of drugs, medical devices and clinical nutrition
	Knows how to safely administer medications, medical devices, and health food
	Possesses the skill of safe use of medicines, medical devices and clinical nutrition
PC-18.1	Knows the professional duties of a nurse.
	Ability to perform nursing duties.
	Proficient in managing patient care



Knows the duties of a district nurse and other medical workers at the disposal	
PC-18.2 Is able to control the performance of duties by a district nurse and other medical workers at their disposal	Knows the standard of medical care for patient care
	Able to organize patient care in accordance with current standards
	Able to assess the correctness of the organization of patient care and compliance with their current standards

## ANNOTATION

Discipline "Propaedeutics of internal diseases, radiation diagnostics» is intended for students enrolled in the educational program 31.05.01 "Medicine", is included in the mandatory part of the curriculum.

The discipline is implemented on 2, 3 courses in 4, 5, 6 semesters.

When developing the working program of the discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students in the field of General Medicine were used.

The total labor intensity of the discipline is 324 hours, 9 credit units (lectures - 90 hours, practical classes - 162 hours, independent work of students - 72 hours).

The development in students of a conscious understanding of the relationship between human health and the environment, factors and conditions of life, labor activity is a necessary prerequisite for their active participation in the implementation of evidence-based and effective therapeutic measures, disease prevention.

The study of hygiene is of particular importance in the formation of medical practice, in solving the list of problems in the diagnosis and treatment of diseases, given in the Federal State Educational Standard, in the development of students' clinical thinking.

A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline.

The discipline "Propaedeutics of Internal Diseases" is logically and meaningfully connected with such courses as "Human Anatomy", "Histology, Cytology, Embryology", "Fundamentals of Nursing".

The course program is based on the basic knowledge gained by students:

- ability and willingness to implement ethical and deontological principles in professional activities (GPC 4);

- the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (OPK-9);
- readiness to ensure the organization of patient care and the provision of primary pre-hospital health care (GPC 10);
- readiness to provide medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases that are not accompanied by a threat to the patient's life and do not require emergency medical care (PC 10);
- readiness to participate in the provision of emergency medical care in conditions requiring urgent medical intervention (PC 11).

### **Goals and objectives of the discipline.**

**Course objective:**teaching students the methods of research and the rules for diagnosing diseases of internal organs in the process of clinical training of a young specialist - the formation of important professional skills in examining a patient, the basics of clinical thinking, as well as medical ethics and deontology.

#### **Tasks:**

- study of methods of direct examination of the patient (questioning, examination, palpation, percussion, auscultation, measurement of blood pressure, study of the properties of the arterial pulse, etc.);
- study of some methods of laboratory and instrumental diagnostics of diseases of internal organs (general and biochemical blood tests, urine tests, pleural contents, sputum tests, stool tests, ECG, echocardiography, spirometry, etc.)
- study of the main clinical symptoms and syndromes of diseases of the internal organs and the mechanisms of their occurrence;
- study of the symptomatology of the most common diseases of the internal organs, occurring in a typical classical form;
- formation of ideas about the basic principles of the diagnostic process (the foundations of clinical thinking);
- formation of ideas about the basic principles of medical ethics and deontology.

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Etiology and pathogenesis	OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
Treatment of diseases and conditions	OPK-7. Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.1. Be able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-5.3. Own the algorithm of physical examination, clinical laboratory,	Knows the methods of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems

instrumental diagnostics in solving professional problems	Able to apply the methods of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
	Possesses the skill of a standard examination of a patient using the methods of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
<p>GPC-7.1.</p> <p>Be able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.</p>	Knows the morphological and functional features and patterns of the course of the pathological process in surgical infections, injuries, blood loss, terminal states of the body, the principles of their treatment.
	Able to make a conclusion about the nature of the pathological process, determine the indications for prescribing conservative and surgical treatment for surgical infection, trauma, blood loss, terminal conditions of the body, draw up a treatment plan for the identified surgical pathology
	Able to determine and prescribe the necessary therapeutic measures for surgical infection, trauma, blood loss, terminal states of the body based on knowledge of the morphofunctional features of these pathological processes

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-4 readiness to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of	PC-4.1 To be able to collect complaints, anamnesis of life and illness of the patient and analyze the information received.
		PC-4.2 Be able to conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation) and interpret its results

	medical care, taking into account the standards of medical care.	
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## ANNOTATION

Discipline Faculty therapy, occupational diseases» is intended for students studying under the educational program 05/31/01 "General Medicine", is included in the mandatory part of the curriculum.

The discipline is implemented in the 4th year, in 7, 8 semesters.

When developing the working program of the discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students in the field of General Medicine were used.

The total labor intensity of the discipline is 252 hours, 7 credit units (lectures - 36 hours, practical classes - 126 hours, independent work of students - 108 hours).

The development in students of a conscious understanding of the relationship between human health and the environment, factors and conditions of life, labor activity is a necessary prerequisite for their active participation in the implementation of evidence-based and effective therapeutic measures, disease prevention.

The study of hygiene is of particular importance in the formation of medical practice, in solving the list of problems in the diagnosis and treatment of diseases, given in the Federal State Educational Standard, in the development of students' clinical thinking.

A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline.

The discipline "Faculty Therapy, Occupational Diseases" is logically and meaningfully connected with such courses as "Human Anatomy", "Histology, Cytology, Embryology", "Fundamentals of Nursing", "Propaedeutics of Internal Diseases".

The course program is based on the basic knowledge gained by students:

- ability and willingness to implement ethical and deontological principles in professional activities (GPC 4);

- the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (OPK-9);
- readiness to ensure the organization of patient care and the provision of primary pre-hospital health care (GPC 10);
- willingness to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of the disease (PC 5);
- the ability to determine the tactics of managing patients with various nosological forms (PC-8);
- readiness to provide medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases that are not accompanied by a threat to the patient's life and do not require emergency medical care (PC 10);
- readiness to participate in the provision of emergency medical care in conditions requiring urgent medical intervention (PC 11).

### **Goals and objectives of the discipline.**

**The purpose of studying the discipline** is the formation of students' natural-science outlook, clinical thinking based on competencies in systemic special knowledge, skills and abilities in matters of the most common diseases of internal organs necessary for the subsequent practical activities of a doctor.

#### **Tasks:**

- formation of knowledge on etiology, pathogenesis, classification, clinical manifestations, complications, prognosis, treatment, prevention of diseases of internal organs;
- formation of knowledge on the principles of differential diagnosis and clinical diagnosis;
- development of the ability to collect anamnesis and clinical examination of the patient by systems; identification of the main clinical criteria of the disease; interpretation of the results of laboratory and instrumental studies; drawing up an examination plan, medical tactics and the appointment of complex treatment;



- formation of skills of substantiation and formation of preliminary and clinical diagnosis;

- the formation of skills to provide emergency care in some emergency conditions.

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Etiology and pathogenesis	OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
Treatment of diseases and conditions	OPK-7. Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.1. Be able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.
		GPC-7.2 To be able to evaluate and control the therapeutic effect and side effects in the appointment of drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data.

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
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<p>GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems</p>	<p>Knows the methods of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems</p>
	<p>Able to apply the methods of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems</p>
	<p>Possesses the skill of a standard examination of a patient using the methods of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems</p>
<p>GPC-7.1. Be able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.</p>	<p>Knows the morphological and functional features and patterns of the course of the pathological process in therapeutic pathology. Basic principles of medical use of drugs and other substances and their combinations in solving professional problems</p>
	<p>Able to analyze the effect of drugs in terms of the totality of their pharmacological properties and the possibility of their use, including the possibility of combinations</p>
	<p>Proficient in the use of drugs in the treatment of common therapeutic diseases</p>
<p>GPC-7.2 To be able to evaluate and control the therapeutic effect and side effects in the appointment of drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data.</p>	<p>Knows the morphological and functional features and patterns of the course of the pathological process in therapeutic pathology, the main groups of drugs, indications and contraindications for their use, principles and methods of treatment.</p>
	<p>Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data.</p>
	<p>Able to determine and prescribe the necessary therapeutic measures for chronic and acute therapeutic pathology, emergency conditions of the body based on clinical, laboratory and instrumental data</p>

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-4 readiness to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care.	PC - 4.3 Be able to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations to specialist doctors
		PC - 4.4 Be able to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care.
	PC-5 The ability to establish a diagnosis, taking into account the current international statistical classification of diseases and related health problems (ICD).	PC-5.1 Know the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs
		PC-5.2 Be able to carry out early diagnosis of diseases of internal organs
	PC-7 Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-7.2 Knows how to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (protocols of speech) on the provision of medical care, taking into account the standards of medical care

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC - 4.3 Be able to justify the need and scope of laboratory and instrumental	Be aware of the need for certain volumes of laboratory and instrumental examination of the

examination of the patient, the need to refer the patient for consultations to specialist doctors	patient, the need to refer the patient for consultations with specialist doctors
	Be able to prescribe the required amount of laboratory and instrumental examination of the patient, be able to refer the patient for consultations to specialist doctors
	Own methods of substantiating the need and scope of laboratory and instrumental examination of the patient, the necessary referrals of the patient for consultations with specialist doctors
PC - 4.4 Be able to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care.	To know the sequence of the volume of content and the sequence of diagnostic measures, taking into account the standards of medical care
	Be able to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care
	Own methods for determining the order of volume, content and sequence of diagnostic measures, taking into account the standards of medical care.
PC-5.1 Know the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs	Know the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs
	Be able to use knowledge about the etiology, pathogenesis and pathomorphology and clinical picture for differential diagnosis, taking into account the course, complications and outcomes of diseases of internal organs
	Own methods of searching for etiology, pathogenesis, pathomorphology, clinical picture, differential diagnosis, taking into account the course, complications and outcomes of diseases of internal organs
PC-5.2 Be able to carry out early diagnosis of diseases of internal organs	Know the early diagnosis of diseases of internal organs
	To be able to carry out early diagnosis of diseases of internal organs
	Own methods for early diagnosis of diseases of internal organs
PC-7.2 Knows how to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of	Knows the purpose of medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical

<p>medical care, clinical recommendations (protocols of speech) on the provision of medical care, taking into account the standards of medical care</p>	<p>care, taking into account the standards of medical care</p>
	<p>Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>Owens the methods of prescribing medicines, medical devices and clinical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

## ANNOTATION

The discipline "Hospital Therapy, Endocrinology" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the basic part of the curriculum.

The discipline is realized at 5, 6 courses, at 9, A, B semesters.

When developing the working program of the discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students in the field of General Medicine were used.

The total labor intensity of the discipline is 324 hours, 9 credit units (lectures - 54 hours, practical classes - 126 hours, independent work of students - 144 hours).

The development in students of a conscious understanding of the relationship between human health and the environment, factors and conditions of life, labor activity is a necessary prerequisite for their active participation in the implementation of evidence-based and effective therapeutic measures, disease prevention.

The study of hygiene is of particular importance in the formation of medical practice, in solving the list of problems in the diagnosis and treatment of diseases, given in the Federal State Educational Standard, in the development of students' clinical thinking.

A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline.

The discipline "Hospital Therapy, Endocrinology" is logically and meaningfully connected with such courses as "Human Anatomy", "Histology, Cytology, Embryology", "Fundamentals of Nursing", "Propaedeutics of Internal Diseases", "Faculty Therapy, Occupational Diseases".

The course program is based on the basic knowledge gained by students:

- ability and willingness to implement ethical and deontological principles in professional activities (GPC 4);

- readiness for the medical use of drugs and other substances and their combinations in solving professional problems (OPK-8);
- the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (OPK-9);
- readiness to ensure the organization of patient care and the provision of primary pre-hospital health care (GPC 10);
- willingness to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of the disease (PC 5);
- the ability to determine the tactics of managing patients with various nosological forms (PC-8);
- readiness to provide medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases that are not accompanied by a threat to the patient's life and do not require emergency medical care (PC 10);
- readiness to participate in the provision of emergency medical care in conditions requiring urgent medical intervention (PC 11).

### **Goals and objectives of the discipline.**

**aim**the study of the discipline is the formation of students' natural-science outlook, clinical thinking based on competencies in systemic special knowledge, skills and abilities in matters of differential diagnosis of the most common diseases of internal organs, necessary for the subsequent practical activity of a doctor in primary health care institutions.

### **The tasks of studying the discipline:**

1. formation of students' knowledge and skills to carry out a full range of diagnostic and therapeutic measures in accordance with clinical protocols for managing patients with various nosological forms of internal diseases;
2. development of students' skills of questioning and clinical examination of patients with pathology of internal organs, interpretation of the results of routine

and special laboratory and instrumental methods of examination of organs and systems, morphological examination of tissues;

3. the formation of students' skills in differential syndromic diagnosis, setting, substantiating, formulating and categorizing nosological (according to ICD-10) and clinical diagnosis, drawing up a plan for examining patients, determining the tactics of their management in accordance with current clinical guidelines (protocols);

4. the formation of students' skills and abilities to carry out prevention, treatment and rehabilitation of patients with diseases of the internal organs, prescribe and directly treat patients with major diseases of the internal organs;

5. developing the skills of filing a medical history, substantiating a clinical diagnosis, a plan for examination and treatment, determining the ability to work and indications for hospitalization, keeping diaries and writing epicrises when working with therapeutic patients.

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Etiology and pathogenesis	OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
		GPC 5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems



Treatment of diseases and conditions	OPK-7. Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.2 To be able to evaluate and control the therapeutic effect and side effects in the appointment of drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data.
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>	
GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems	Knows the basics of physical examination, clinical laboratory, instrumental diagnostics of various pathological conditions	
	Able to conduct a complete physical examination of the patient, interpret the results of clinical, laboratory and instrumental diagnostics	
	Owns the algorithm of physical examination, clinical and laboratory, instrumental diagnostics in various nosologies	
GPC 5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems	Knows the basics of physical examination, clinical laboratory, instrumental diagnostics of various pathological conditions	
	Able to interpret, analyze the results of clinical, laboratory and instrumental diagnostics, the conclusions of medical specialists	
	Possesses the skills of a critical assessment of the results obtained to justify the choice of the optimal algorithm for examining a patient, appointment of consultations of medical specialists	
GPC-7.2 To be able to evaluate and control the therapeutic effect and side effects in the appointment of drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data.	Knows the indications, contraindications for prescribing drugs, other therapeutic agents and methods for various nosologies, knows the main side effects of the chosen therapy	
	Able to evaluate and control the therapeutic effect and side effects of the treatment based on clinical, laboratory and instrumental data	
	He has the skills to critically evaluate the results obtained to justify the choice of the optimal algorithm for treating a patient with various nosologies.	

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	PC-4 readiness to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care.	PC - 4.4 Be able to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care.
		PC -4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results
		PC -4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care
	PC-5 The ability to establish a diagnosis, taking into account the current international statistical classification of diseases and related health problems (ICD).	PC -5.3 Able to carry out differential diagnosis of diseases of internal organs from other diseases
		PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis
	PC-6 Capable of developing a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-6.1 Knows modern methods of using medicines, medical devices and medical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care

		PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care
	PC-8 Ready to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-8.1 Knows modern methods of non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for the provision of medical care
		PC-8.2 Able to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care
	PC-10 Ready to organize personalized treatment of the patient, including pregnant women, elderly and senile patients, evaluation of the effectiveness and safety of treatment	PC-10.1 Knows the physiological characteristics of patients depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy;
		PC-10.2 Able to prescribe personalized treatment of patients depending on the constitutional type, age, comorbidities and changes associated with pregnancy, taking into account the standards of medical care;

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC - 4.4 Be able to prioritize the volume, content and sequence of	Knows the standards of medical care
	Able to correctly determine the volume and

diagnostic measures, taking into account the standards of medical care.	sequence of diagnostic measures in accordance with the standards of medical care for various nosologies
	Possesses the skills of diagnostic search for various nosologies in accordance with the standards of medical care
PC -4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results	Knows modern methods of laboratory and instrumental diagnostics for various nosologies, indications and contraindications for their use
	Able to compose a differential search algorithm using laboratory and instrumental diagnostics for various nosologies
	Has the skills to interpret the results of laboratory and instrumental diagnostic methods for various nosologies
PC -4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care	Knows the procedures for providing medical care, clinical recommendations, treatment protocols, standards for providing medical care for various diseases
	Able to apply protocols and standards of medical care, clinical recommendations in practice
	Has the skills to provide medical care in accordance with modern protocols and standards for the provision of medical care, clinical recommendations
PC -5.3 Able to carry out differential diagnosis of diseases of internal organs from other diseases	Knows the features of differential diagnosis in various therapeutic nosologies
	Able to compose a differential search algorithm for various nosologies
	Possesses the skills of differential diagnostics in various conditions using modern diagnostic methods
PC-5.4 Able to apply for diagnosis the international statistical classification of diseases and health problems (ICD) of medical care, clinical recommendations (protocols of speech) on the provision of medical care, taking into account the standards of medical care	Knows the international statistical classification of diseases and health-related problems
	Able to formulate a diagnosis according to the international statistical classification of diseases and health-related problems
	Has the skills to make a diagnosis according to the international statistical classification of diseases and health-related problems
PC-6.1 Knows modern methods of using medicines, medical devices and medical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking	Knows modern medicines, medical devices and nutritional therapy used for various diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care
	Able to draw up a plan for the use of modern drugs,

<p>into account the standards of medical care</p>	<p>medical devices and medical nutrition for various nosologies in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Owns the methods of using drugs, medical devices and nutritional therapy for diseases and conditions of the patient in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows the features of treatment of various nosologies and conditions of the patient, taking into account the diagnosis, the age of the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Able to draw up a treatment plan for various nosologies and conditions of the patient, taking into account the diagnosis, the age of the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Has the skills to apply the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the treatment of various conditions and nosologies</p>
<p>PC-8.1 Knows modern methods of non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for the provision of medical care</p>	<p>Knows modern procedures for providing medical care for various nosologies and conditions</p>
<p>PC-8.1 Knows modern methods of non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for the provision of medical care</p>	<p>Able to draw up a plan for non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for the provision of medical care</p>
<p>PC-8.1 Knows modern methods of non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for the provision of medical care</p>	<p>Possesses the skills of non-drug treatment for various conditions and nosologies in accordance with the current procedures for the provision of medical care.</p>
<p></p>	<p>Knows the main methods of non-drug treatment for</p>

<p>PC-8.2 Able to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>various conditions and nosologies in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>Able to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>Possesses the skills of non-drug treatment for various conditions and nosologies in accordance with the current procedures for the provision of medical care.</p>
<p>PC-10.1 Knows the physiological characteristics of patients depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy;</p>	<p>Knows the physiological characteristics of patients depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy</p>
	<p>Able to conduct a differential search for various conditions and nosologies, taking into account the physiological characteristics of patients, depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy</p>
	<p>Has the skills to diagnose and assess the physiological characteristics of patients depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy</p>
<p>PC-10.2 Able to prescribe personalized treatment of patients depending on the constitutional type, age, comorbidities and changes associated with pregnancy, taking into account the standards of medical care;</p>	<p>Knows the features of the treatment of various conditions and nosologies, depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy, taking into account the standards of medical care</p>
	<p>Able to prescribe personalized treatment of patients depending on the constitutional type, age, comorbidities and changes associated with pregnancy, taking into account the standards of medical care</p>
	<p>Possesses the skills of a personalized approach to the treatment of patients depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy, taking into account the standards of medical care</p>

## ANNOTATION

The discipline "Polyclinic Therapy" is intended for students enrolled in the educational program 31.05.01 "General Medicine", is included in mandatory part of the curriculum.

The discipline is realized on 5, 6 courses, in A, B, C semesters.

When developing the working program of the discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students in the field of General Medicine were used.

The total labor intensity of the discipline is 360 hours, 10 credit units (lectures - 54 hours, practical classes - 142 hours, independent work of students - 164 hours).

The development in students of a conscious understanding of the relationship between human health and the environment, factors and conditions of life, labor activity is a necessary prerequisite for their active participation in the implementation of evidence-based and effective therapeutic measures, disease prevention.

A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline.

The discipline "Polyclinic Therapy" is logically and meaningfully connected with such courses as "Human Anatomy", "Histology, Cytology, Embryology", "Fundamentals of Nursing", "Propaedeutics of Internal Diseases", "Faculty Therapy, Occupational Diseases".

### **Goals and objectives of the discipline.**

**aim** the study of the discipline is the formation of a holistic view among students about the main stages of the work of a doctor in the provision of primary health care in an outpatient institution; acquisition of competencies in the provision of medical and preventive care to the adult population in a polyclinic.

### **The tasks of studying the discipline:**

- to study the features of the organization and scope of work of a doctor in an outpatient clinic, modern diagnostic capabilities of the outpatient service;
- develop competencies in carrying out measures for the prevention of diseases among the adult population;
- develop competencies for the implementation of dispensary observation of the adult population, taking into account age, gender and initial state of health;
- develop the competencies of clinical thinking in diagnosing the most common therapeutic diseases and pathological conditions in the adult population in an outpatient setting based on the knowledge of propaedeutic and laboratory-instrumental research methods;
- develop the competencies of clinical thinking to assess the characteristics of the course of the most common therapeutic diseases in the adult population and their outpatient treatment;
- develop competencies for conducting rehabilitation activities among the adult population who have had a somatic disease on an outpatient basis;
- develop competencies to conduct an examination of temporary and permanent disability;
- develop competencies in providing medical care to the adult population in emergency conditions at the prehospital stage.

As a result of studying this discipline, students form the following general professional competencies:

Name of the category (group) of universal competencies	Code and name of general professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Etiology and pathogenesis	OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems



		GPC 5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems
Treatment of diseases and conditions	OPK-7. Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.2 To be able to evaluate and control the therapeutic effect and side effects in the appointment of drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data.
Scientific and organizational activities	OPK-11. Able to prepare and apply scientific, research and production, design, organizational, managerial and regulatory documentation in the healthcare system	GPC-11.2. To be able to use the methods of evidence-based medicine in solving the professional task

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems	Knows the basic principles of collecting and analyzing patient complaints, his medical history, examination results, laboratory, instrumental, pathoanatomical and other studies in order to recognize a condition or establish the presence or absence of a disease
	Able to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of the disease.
	Owens methods for collecting and analyzing patient complaints, his medical history, examination results, laboratory, instrumental, pathoanatomical and other studies in order to recognize a condition or establish the presence or absence of a disease
	Knows the basics of physical examination,

<p>GPC 5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems</p>	<p>clinical laboratory, instrumental diagnostics of various pathological conditions</p>
	<p>Able to interpret, analyze the results of clinical, laboratory and instrumental diagnostics, the conclusions of medical specialists</p>
	<p>Possesses the skills of a critical assessment of the results obtained to justify the choice of the optimal algorithm for examining a patient, appointment of consultations of medical specialists</p>
<p>GPC-7.2 To be able to evaluate and control the therapeutic effect and side effects in the appointment of drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data.</p>	<p>Knows the basic principles of management and treatment of patients with various nosological forms in outpatient settings and day hospital conditions</p>
	<p>Able to manage and treat patients with various nosological forms in outpatient and day hospital conditions</p>
	<p>Owens methods of management and treatment of patients with various nosological forms in outpatient settings and day hospital conditions</p>
<p>OPK-11. Able to prepare and apply scientific, research and production, design, organizational, managerial and regulatory documentation in the healthcare system</p>	<p>Knows the methods of analysis, finding the problem, designing the optimal sequence of actions to achieve the intended goal, methods of planning scientific activities, evaluating and monitoring it. Principles of independent decision-making in the field of management of the organization of scientific research.</p>
	<p>Knows how to use educational, scientific, popular science literature, the Internet for professional activities. Analyze the results of their own activities to prevent professional errors and critically evaluate modern theoretical concepts and trends in medicine. Implement the principles of personal responsibility for decisions made in the organization of scientific research</p>
	<p>Owens methods of analyzing the results of his own activities to prevent professional mistakes: possession of various managerial functions: planning, organizing, regulating, monitoring and controlling, having the ability to consciously choose the optimal strategy, etc.</p>

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-4 readiness to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care.	PC - 4.4 Be able to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care.
		PC -4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results
		PC -4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care
	PC-5 The ability to establish a diagnosis, taking into account the current international statistical classification of diseases and related health problems (ICD).	PC -5.3 Able to carry out differential diagnosis of diseases of internal organs from other diseases
		PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis
	PC-6 Capable of developing a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking	PC-6.1 Knows modern methods of using medicines, medical devices and medical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care

	<p>into account the standards of medical care</p>	<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-7 Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-7.2 Knows how to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-8 Ready to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-8.1 Knows modern methods of non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for the provision of medical care</p> <p>PC-8.2 Able to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-11 Ready to conduct an examination of temporary disability, participate in a medical and social examination, ascertain the biological death of a person</p>	<p>PC-11.1 Knows the procedure for the examination of temporary disability and signs of temporary disability of the national government</p> <p>PC-11.2 Knows signs of persistent impairment of body functions due to</p>

		diseases, consequences of injuries or defects
		PC-11.3 Able to identify signs of temporary disability and signs of permanent impairment of body functions due to diseases, consequences of injuries or defects
	PC-12 Ready to determine the need for the use of natural healing factors, drug, non-drug therapy and other methods in patients in need of medical rehabilitation and sanatorium treatment in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-12.1 Knows the measures for the medical rehabilitation of the patient, medical indications and contraindications for their implementation, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care
		PC-12.2 Knows the medical indications and contraindications for the appointment of sanatorium-resort treatment as a stage of the patient's medical rehabilitation
	PC-13 Capable and ready to carry out prophylactically? medical examinations, medical examinations and dispensary observation of healthy and chronic patients	PC-13.1 Knows the regulatory legal acts and other documents regulating the procedures for conducting medical examinations, medical examinations and dispensary observation
		PC-13.2 Knows the principles of dispensary observation of patients with non-communicable diseases and risk factors in accordance with regulatory legal acts and other documents
		PC-13.3 Knows the forms and methods of sanitary and educational work on the formation of elements of a healthy lifestyle, including programs to reduce alcohol and tobacco consumption, prevent and combat the non-medical use of narcotic drugs and psychotropic substances
		PC-13.4 Able to conduct medical examinations taking into account age,

		health status, profession in accordance with current regulatory legal acts and other documents
		PC-13.5 Knows how to conduct medical examinations of the adult population in order to early identify chronic non-communicable diseases, the main risk factors for their development
		PC-13.6 Able to conduct dispensary observation of patients with identified chronic non-communicable diseases, including patients with high and very high cardiovascular risk
		PC-13.7 Knows how to prescribe preventive measures to patients, taking into account risk factors for the prevention and early detection of diseases, including socially significant diseases

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC - 4.4 Be able to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care.	Knows the standards of medical care
	Able to correctly determine the volume and sequence of diagnostic measures in accordance with the standards of medical care for various nosologies
	Possesses the skills of diagnostic search for various nosologies in accordance with the standards of medical care
PC -4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results	Knows modern methods of laboratory and instrumental diagnostics for various nosologies, indications and contraindications for their use
	Able to compose a differential search algorithm using laboratory and instrumental diagnostics for various nosologies
	Has the skills to interpret the results of laboratory and instrumental diagnostic methods for various nosologies
PC -4.6 Knows the procedures for providing medical care, clinical recommendations (treatment	Knows the procedures for providing medical care, clinical recommendations, treatment protocols, standards for providing medical care for various diseases

protocols) on the provision of medical care, standards of medical care	Able to apply protocols and standards of medical care, clinical recommendations in practice
	Has the skills to provide medical care in accordance with modern protocols and standards for the provision of medical care, clinical recommendations
PC -5.3 Able to carry out differential diagnosis of diseases of internal organs from other diseases	Knows the features of differential diagnosis in various therapeutic nosologies
	Able to compose a differential search algorithm for various nosologies
	Possesses the skills of differential diagnostics in various conditions using modern diagnostic methods
PC-5.4 Able to apply for diagnosis the international statistical classification of diseases and health problems (ICD) of medical care, clinical recommendations (protocols of speech) on the provision of medical care, taking into account the standards of medical care	Knows the international statistical classification of diseases and health-related problems
	Able to formulate a diagnosis according to the international statistical classification of diseases and health-related problems
	Has the skills to make a diagnosis according to the international statistical classification of diseases and health-related problems
PC-6.1 Knows modern methods of using medicines, medical devices and medical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	Knows modern medicines, medical devices and nutritional therapy used for various diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account standards in medical care
	Able to draw up a plan for the use of modern drugs, medical devices and medical nutrition for various nosologies in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care
	Owens the methods of using drugs, medical devices and nutritional therapy for diseases and conditions of the patient in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care
PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in	Knows the features of treatment of various nosologies and conditions of the patient, taking into account the diagnosis, the age of the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical

<p>accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>Able to draw up a treatment plan for various nosologies and conditions of the patient, taking into account the diagnosis, the age of the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>Has the skills to apply the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the treatment of various conditions and nosologies</p>
<p>PC-8.1 Knows modern methods of non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for the provision of medical care</p>	<p>Knows modern procedures for providing medical care for various nosologies and conditions</p>
	<p>Able to draw up a plan for non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for the provision of medical care</p>
	<p>Possesses the skills of non-drug treatment for various conditions and nosologies in accordance with the current procedures for the provision of medical care.</p>
<p>PC-8.2 Able to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows the main methods of non-drug treatment for various conditions and nosologies in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>Able to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>Possesses the skills of non-drug treatment for various conditions and nosologies in accordance with the current procedures for the provision of medical care.</p>
<p>PC-11.1 Knows the procedure for the examination of temporary disability</p>	<p>Knows the procedure for the examination of temporary disability and the signs of a patient's</p>



and signs of temporary disability of the national government	temporary disability
	Able to identify signs of temporal patient disability
	Owns the skills of action in accordance with the procedure for the examination of temporary disability
PC-11.2 Knows signs of persistent impairment of body functions due to diseases, consequences of injuries or defects	Knows the signs of permanent impairment of body functions due to diseases, consequences of injuries or defects
	Able to identify signs of permanent dysfunction of the body due to diseases, consequences of injuries or defects
	Possesses the skills to document signs of a persistent impairment of body functions due to diseases, consequences of injuries or defects
PC-11.3 Able to identify signs of temporary disability and signs of permanent impairment of body functions due to diseases, consequences of injuries or defects	Knows the procedure for determining signs of temporary disability and signs of persistent impairment of body functions
	Able to identify signs of temporary disability and signs of permanent impairment of body functions due to diseases, consequences of injuries or defects
	Possesses the skills to document signs of temporary disability and signs of persistent impairment of body functions
PC-12.1 Knows the measures for the medical rehabilitation of the patient, medical indications and contraindications for their implementation, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	Knows the medical indications and contraindications for their conduct, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical guidelines
	Able to plan and implement measures for the medical rehabilitation of the patient, taking into account the diagnosis in accordance with the current procedures for the provision of medical care and clinical recommendations
	Has the skills to develop and control the implementation of measures for the medical rehabilitation of the patient, taking into account the diagnosis in accordance with the current procedures for the provision of medical care and clinical recommendations
PC-12.2 Knows the medical indications and contraindications for the appointment of sanatorium-resort	Knows medical indications and contraindications for the appointment of spa treatment
	Knows how to determine medical indications and contraindications for the appointment of sanatorium

treatment as a stage of the patient's medical rehabilitation	and resort treatment as a stage in the patient's medical rehabilitation
	Has the skills to prescribe sanatorium-resort treatment as a stage of the patient's medical rehabilitation
PC-13.1 Knows the regulatory legal acts and other documents regulating the procedures for conducting medical examinations, medical examinations and dispensary observation	Knows the regulatory legal acts and other documents regulating the procedures for conducting medical examinations, medical examinations and dispensary observation
	Able to conduct a preventive medical examination, medical examination and dispensary observation
	Possesses the skills of the actions of a local therapist for medical examination and dispensary observation
PC-13.2 Knows the principles of dispensary observation of patients with non-communicable diseases and risk factors in accordance with regulatory legal acts and other documents	Knows the Principles of dispensary observation of patients with non-communicable diseases and risk factors in accordance with regulatory legal acts and other documents
	Can apply the Principles of Dispensary Care for Patients with Noncommunicable Diseases and Risk Factors
	Possesses the skills of registration of dispensary observation of patients with non-communicable diseases and risk factors
PC-13.3 Knows the forms and methods of sanitary and educational work on the formation of elements of a healthy lifestyle, including programs to reduce alcohol and tobacco consumption, prevent and combat the non-medical use of narcotic drugs and psychotropic substances	Knows the forms and methods of sanitary and educational work on the formation of elements of a healthy lifestyle
	Able to conduct sanitary and educational work on the formation of elements of a healthy lifestyle
	Has the skills to work on the formation of elements of a healthy lifestyle, including programs to reduce alcohol and tobacco consumption, prevent and combat the non-medical use of narcotic drugs and psychotropic substances
PC-13.4 Able to conduct medical examinations taking into account age, health status, profession in accordance with current regulatory legal acts and other documents	Knows the current regulatory legal acts and other documents on medical examinations of the population
	Able to conduct medical examinations taking into account age, health status, profession in accordance with current regulatory legal acts and other documents
	Possesses the skills of preventive medical examinations
PC-13.5 Knows how to conduct medical examinations of the adult	Knows the principles of early detection of chronic non-communicable diseases, the main risk factors

<p>population in order to early identify chronic non-communicable diseases, the main risk factors for their development</p>	<p>for their development</p>
	<p>Able to carry out clinical examination of the adult population in order to early detection of chronic non-communicable diseases, the main risk factors for their development</p>
	<p>Owens methods of medical examination of the adult population for the purpose of early detection of chronic non-communicable diseases, the main risk factors for their development</p>
<p>PC-13.6 Able to conduct dispensary observation of patients with identified chronic non-communicable diseases, including patients with high and very high cardiovascular risk</p>	<p>Knows the procedure for dispensary observation of patients with identified chronic non-communicable diseases, including patients with high and very high cardiovascular risk</p>
	<p>Able to conduct dispensary observation of patients with identified chronic non-communicable diseases, including patients with high and very high cardiovascular risk</p>
	<p>Possesses the skills of dispensary observation of patients with identified chronic non-communicable diseases, including patients with high and very high cardiovascular risk</p>
<p>PC-13.7 Knows how to prescribe preventive measures to patients, taking into account risk factors for the prevention and early detection of diseases, including socially significant diseases</p>	<p>Knows risk factors for the prevention and early detection of diseases, including socially significant diseases</p>
	<p>Knows how to prescribe preventive measures to patients, taking into account risk factors for the prevention and early detection of diseases, including socially significant diseases</p>
	<p>Possesses the skills of prevention and early detection of diseases, including socially significant diseases</p>

## ANNOTATION

The discipline "Traumatology, Orthopedics" is intended for students studying under the educational program 31.05.01 "General Medicine".

The discipline is implemented in the 4th year, 7.8 semesters, is the basic discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students were used.

The total labor intensity of the discipline is 252 hours, 7 credits. The curriculum includes lectures (36 hours), practical classes (108 hours), independent work (108 hours)

### **Goals and objectives of the discipline.**

#### **Course objective:**

Clinical training of students, necessary for subsequent independent medical activity, mastering the basics of examination, diagnosis, conservative and surgical treatment, rehabilitation of patients with pathology of the musculoskeletal system.

#### **Tasks:**

1. Formation of clinical thinking of a traumatologist-orthopedist.
2. To prepare a specialist in traumatology and orthopedics for independent professional diagnostic and treatment activities, able to conduct a differential diagnostic search, provide full medical care, including in urgent conditions, carry out preventive and rehabilitation measures to preserve life and health at all ages. periods of the life of a patient who is able to successfully solve their professional tasks.
3. To prepare a doctor-specialist in traumatology and orthopedics, who has the skills and medical manipulations in the specialty profile, general medical manipulations to provide emergency and emergency care.

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Diagnostic instrumental examination methods	GPC-4 Able to use medical devices prescribed by the order of medical care, as well as conduct examinations of the patient in order to establish a diagnosis	GPC-4.1 Knows how to use medical devices provided for by the procedure for providing medical care
		GPC-4.2 Is able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, assistance taking into account the standards of medical care in order to establish a diagnosis
Etiology and pathogenesis	OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
Treatment of diseases and conditions	OPK-7. Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.2 To be able to evaluate and control the therapeutic effect and side effects in the appointment of drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data.

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-4.1 Knows how to use medical devices provided for by the procedure for providing medical care	Knows the methods of instrumental examination of patients, the necessary medical devices and special equipment_
	Knows how to use medical devices to provide medical care

	Owns an algorithm for the use of medical devices provided for by the procedure for providing medical care
GPC-4.2 Is able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, assistance taking into account the standards of medical care in order to establish a diagnosis	Knows the pathogenesis, clinical features of the course of patients with the consequences of stroke, after arthroplasty, Parkinson's disease, shoulder joint injury, coronavirus infection
	Able to evaluate on functional scales in order to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations
	Possesses the skills of setting a short-term and long-term rehabilitation goal, drawing up a rehabilitation plan, evaluating its effectiveness
GPC-5.3. Own the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems	Knows normal and pathological human anatomy, normal and pathological human physiology, propaedeutics of internal diseases, basic methods of laboratory and instrumental examination
	Able to conduct a physical examination of organs and systems, prescribe a plan for laboratory and instrumental examination
	Owns methods for interpreting the results obtained with physical, laboratory and instrumental equipment
GPC-7.2 To be able to evaluate and control the therapeutic effect and side effects in the appointment of drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data.	Knows the classification and main characteristics of drugs, pharmacodynamics and pharmacokinetics, indications and contraindications for the use of drugs, side effects; general principles for the design of receptors and the preparation of prescription prescriptions for medicines
	Able to analyze the effect of drugs in the totality of their pharmacological properties and the possibility of their use for therapeutic treatment; write prescriptions for medicines, use various medicines, apply basic antibacterial, antiviral and biological drugs; evaluate possible manifestations in case of drug overdose and ways to eliminate them; substantiate the principles of pathogenetic therapy of the most common diseases
	He has the skills to use medicines in the treatment, rehabilitation and prevention of various diseases and pathological conditions.

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	PC-4 readiness to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care.	PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors
		PC -4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care
	PC-5 The ability to establish a diagnosis, taking into account the current international statistical classification of diseases and related health problems (ICD).	PC-5.1 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs
		PC-5.2 Able to carry out early diagnosis of diseases of internal organs
		PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis
	PC-6 Capable of developing a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking	PC-6.1 Knows modern methods of using medicines, medical devices and medical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care

	into account the standards of medical care	PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care
	PC-8 Ready to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-8.1 Knows modern methods of non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for the provision of medical care
		PC-8.2 Able to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors	Knows the indications for conducting diagnostic instrumental methods of examining a patient in order to establish a diagnosis
	Knows how to justify the need and scope of diagnostic instrumental methods in the structure of a comprehensive examination of the patient in order to establish a diagnosis; justify the need to refer children for consultation to specialist doctors
	Has the skills to substantiate the need and scope of diagnostic instrumental methods in the structure of a comprehensive examination of the patient in order to establish a diagnosis; skills in determining indications for consultation of medical specialists
	Knows the standards of medical care for children; current



PC -4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care	clinical guidelines (treatment protocols) for pediatrics
	Knows how to prescribe etiologic and pathogenetic therapy for children with somatic diseases, in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols), and standards for the provision of medical care.
	He has the skills to prescribe etiologic and pathogenetic therapy to children in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols), and standards for the provision of medical care.
PC-5.1 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs	Knows the etiology and pathogenesis of diseases and conditions in children, clinical symptoms of somatic diseases in children
	Able to identify pathological symptoms and syndromes in children; conduct a differential diagnosis of diseases and conditions in children, taking into account the etiology and pathogenesis of pathological conditions
	Has the skills to identify the causes and mechanisms of development of somatic diseases in children; skills to identify somatic diseases in children; making a differential diagnosis
PC-5.2 Able to carry out early diagnosis of diseases of internal organs	Knows the methodology for collecting and evaluating the anamnesis of a child's life and assessing the physical and psychomotor development of children by age and sex groups; methodology for assessing the condition and well-being of the child. Knows the criteria for the need and scope of laboratory and instrumental examination of children
	Able to justify the need and scope laboratory and instrumental examination of children
	Possesses the skill of establishing the need and scope of diagnostic measures for making a diagnosis
PC-5.4 Able to apply for diagnosis the international statistical classification of diseases and health problems (ICD) of medical care, clinical recommendations (protocols of speech) on the provision of medical care, taking into account the standards of medical care	Knows the modern classification of diseases; international statistical classification of diseases and related health problems
	Able to formulate a diagnosis, taking into account modern classifications and the international statistical classification of diseases and health-related problems
	Has the skills to formulate a diagnosis, taking into account modern classifications and the international statistical classification of diseases and health-related problems
PC-6.1 Knows modern methods of using medicines, medical	Knows the basics of drug, non-drug therapy, diet therapy, taking into account the child's age, diagnosis and clinical

<p>devices and medical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>picture of the disease in accordance with current clinical guidelines (treatment protocols), procedures for providing medical care.</p>
	<p>Able to draw up a plan of drug, non-drug therapy, diet therapy, taking into account the child's age, diagnosis and clinical picture of the disease in accordance with current clinical guidelines (treatment protocols), procedures for providing medical care</p>
	<p>Has the skills to develop individual programs for drug, non-drug therapy, diet therapy, taking into account the child's age, diagnosis and clinical picture of the disease in accordance with current clinical guidelines (treatment protocols), procedures for providing medical care</p>
<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows current clinical guidelines (treatment protocols), procedures for providing medical care and standards for providing medical care to the children's population</p>
	<p>Able to draw up a treatment plan for a pediatric patient, taking into account age. clinical picture of the disease.</p>
	<p>Has the skills to develop individual programs for the treatment of diseases in children of different ages in accordance with current clinical guidelines (treatment protocols), procedures for providing medical care and taking into account the standards of medical care for the children's population.</p>
<p>PC-8.1 Knows modern methods of non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for the provision of medical care</p>	<p>Knows modern procedures for providing medical care for various nosologies and conditions</p>
	<p>Able to draw up a plan for non-pharmacological treatment of diseases and conditions in a patient in accordance with the current procedures for the provision of medical care.</p>
	<p>Possesses the skills of non-drug treatment for various conditions and nosologies in accordance with the current procedures for the provision of medical care</p>
<p>PC-8.2 Able to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of</p>	<p>Knows the main methods of non-drug treatment for various conditions and nosologies in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

<p>medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Able to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>Possesses the skills of non-drug treatment for various conditions and nosologies in accordance with the current procedures for the provision of medical care.</p>

For the formation of the above competencies within the discipline "Traumatology, Orthopedics", the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training programs, work with dummies and phantoms with the analysis of clinical cases
2. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts.
3. Active and interactive forms of conducting classes (IT methods):
  - a. analysis of real clinical situations (case-study);
  - b. solution of clinical situational problems (case-study);
  - c. use of interactive atlases on surgical diseases.
  - d. analysis of real clinical situations;

The proportion of clinical practical classes conducted in interactive forms is 10% of classroom time; independent extracurricular work - 10% of the time

## ANNOTATION

The discipline "Medicine of Disasters" is intended for students enrolled in the educational program 31.05.01 "General Medicine"

The discipline is implemented on the 5th year, it is a compulsory discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 was used. "Medicine", the curriculum for the training of specialists in the specialty 31.05.01. "Medicine".

The total labor intensity of mastering the discipline is 3 credits, 108 hours. The curriculum provides for 18 hours of lectures, 36 hours of practical training and independent work of the student (54 hours).

The development in students of a conscious understanding of the impact on a person of the damaging factors of emergency situations is a necessary prerequisite for their active participation in the implementation of evidence-based and effective therapeutic measures, disease prevention.

The study of disaster medicine is of particular importance in the formation of medical practice, in solving the list of problems in the prevention and diagnosis of diseases, given in the Federal State Educational Standard, in the development of students' clinical thinking.

A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline.

The discipline "Medicine of Disasters" is logically and meaningfully connected with such courses as "Life Safety", "Fundamentals of Nursing", "Propaedeutics of Internal Diseases".

The course program is based on the basic knowledge gained by students:

- willingness to use first aid techniques, methods of protection in emergency situations (OK-7);
- ability and willingness to implement ethical and deontological principles in professional activities (GPC 4);

- readiness to ensure the organization of patient care and the provision of primary pre-medical health care (OPK-10);
- readiness to participate in the provision of emergency medical care in conditions requiring urgent medical intervention (PC-11)
- readiness to participate in the provision of medical care in emergency situations, including participation in medical evacuation (PC-13)
- ability to organize medical care in emergency situations, including medical evacuation (PC-19)

A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline.

### **Goals and objectives of the discipline.**

#### **Course objective:**

Formation of students' knowledge aimed at safe and comfortable interaction of a person with the natural, technogenic and biological and social environment, reducing mortality and human health disorders from adverse factors of a natural, technogenic and biological and social nature in military operations and emergency situations.

#### **Tasks:**

1. Acquisition of knowledge of the system of medical support for the population in emergency situations and the ability to organize the provision of medical care to the population in emergency situations.
2. Formation of students' skills in assessing the medical and sanitary consequences of emergency situations, providing medical care and participating in medical evacuation.
3. Formation of readiness for participation in carrying out measures to protect the population and medical personnel in emergency situations
4. Formation of motivation and ability of independent decision-making of a specialist in the organization of medical and sanitary provision of the population during the elimination of the consequences of an emergency.

As a result of studying this discipline, students form the following universal competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of the universal competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Life safety	UK-8 Able to create and maintain safe living conditions in everyday life and in professional activities to preserve the natural environment, ensure the sustainable development of society, including in the event of a threat and the occurrence of emergencies and military conflicts	UK - 8.5 Knows how to use personal and collective protective equipment and first aid
		UK-8.6 Knows how to provide first aid to victims

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
UK - 8.5 Knows how to use personal and collective protective equipment and first aid	Knows the classification and principle of the protective action of individual and collective protective equipment, standard first aid equipment
	Knows how to use personal and collective protective equipment, personal first aid equipment in case of threat and emergency situations and military conflicts
	Possesses the ability to use personal and collective protective equipment, first aid, both in everyday life and in the event of a threat and the occurrence of emergencies and military conflicts
UK-8.6 Knows how to provide first aid to victims	Knows the basics of providing first aid and medical care to victims; pathology, clinic and treatment of lesions with toxic chemicals and ionizing radiation
	Able to provide first aid in the lesions and at the stages of medical evacuation
	Owns first aid techniques for life-threatening conditions for victims in emergencies and military conflicts

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-1 Ready to participate in the provision of medical care in urgent or emergency forms	PC-1.5 Knows the methods of physical examination of patients (examination, palpation, percussion, auscultation)

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-1.5 Knows the methods of physical examination of patients (examination, palpation, percussion, auscultation)	Knows the basic and additional methods of examining patients, the methodology of physical examination (examination, palpation, percussion, auscultation)
	Able to conduct a physical examination, assess the condition of patients of different ages
	Possesses the skills of physical examination and the ability to assess the patient's condition to make a decision on the need to provide him with medical care

A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline.

## ANNOTATION

The discipline "Hygiene" is intended for students studying under the educational program 31.05.01 "Medicine", is included in the mandatory part of the curriculum.

The discipline is implemented at 3, 4 courses, 6, 7 semesters.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for the training of specialists in the specialty 31.05.01 "General Medicine" were used.

The total labor intensity of mastering the discipline is 7 credits, 252 hours. The curriculum provides for 36 hours of lectures, 108 hours of practical training and independent work of the student (108 hours).

The development in students of a conscious understanding of the relationship between human health and the environment, factors and conditions of life, work activity is a necessary prerequisite for their active participation in the implementation of evidence-based and effective therapeutic measures, disease prevention, promotion of a healthy lifestyle.

The study of hygiene is of particular importance in the formation of medical practice, in solving the list of problems for the prevention of diseases given in the Federal State Educational Standard, in the development of students' ecological thinking.

A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline.

The discipline "Hygiene" is logically and meaningfully connected with such courses as "Biology", "Microbiology", "General and Medical Chemistry", "Medical Informatics, Mathematics".

### **Goals and objectives of the discipline.**

**The purpose of studying the discipline "Hygiene"** is the formation of students' natural-science outlook, preventive thinking based on hygienic and



environmental knowledge, competencies in fundamental systemic knowledge, skills and abilities in matters of hygiene and human ecology, necessary for the subsequent practical activities of a doctor.

**Discipline tasks:**

- the acquisition by students of knowledge in the field of human hygiene and ecology, a systemic understanding of the interaction of the body and various environmental factors;
- the formation of students' practical knowledge, skills and abilities to determine and assess environmental pollution, the development of sanitary and hygienic and anti-epidemic measures;
- mastering the methods of hygienic assessment of the main environmental factors that affect the health of the population;
- formation of motivation for the preservation and promotion of health;
- knowledge of the fundamentals of legislation on sanitary-epidemiological and environmental well-being of the population, international and national hygienic and environmental standards;
- teaching students statistical methods of working with hygienic and environmental information;
- formation of skills in studying scientific literature and official statistical reviews.

IN result study given disciplines at students form the following general professional competencies (elements of competencies):

Name of the category (group) of universal competencies	Code and name of general professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Healthy lifestyle	OPK-2. Able to conduct and monitor the effectiveness of preventive measures, the formation of a healthy lifestyle and sanitary and	GPC-2.1. To be able to plan and apply the most effective methods and means of informing the population about a healthy lifestyle, increasing its literacy in matters of disease prevention

	hygienic education of the population	GPC-2.2. Have the skills to prepare oral presentations or printed texts that promote a healthy lifestyle, increase the literacy of the population in matters of sanitary culture and prevention
Scientific and organizational activities	OPK-11. Able to prepare and apply scientific, research and production, design, organizational, managerial and regulatory documentation in the healthcare system	GPC-11.1. To be able to search and select scientific, regulatory, legal and organizational and administrative documentation in accordance with the set goals, their analysis and application to solve professional problems

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-2.1. To be able to plan and apply the most effective methods and means of informing the population about a healthy lifestyle, increasing its literacy in matters of disease prevention	Knows the modern requirements for the sanitary-hygienic and anti-epidemic regime of various medical institutions;
	Able to assess the effects of environmental factors on the human body
	Possesses the skill of developing a plan of preventive measures to prevent the negative impact of environmental factors on the human body under the supervision of a teacher
GPC-2.2. Have the skills to prepare oral presentations or printed texts that promote a healthy lifestyle, increase the literacy of the population in matters of sanitary culture and prevention	Knows risk factors for developing diseases and healthy lifestyle skills
	Able to carry out informational, educational and sanitary-educational work to eliminate risk factors and develop healthy lifestyle skills
	Possesses the skills of educational activities to eliminate risk factors and the formation of healthy lifestyle skills
GPC-11.1. To be able to search and select scientific, regulatory, legal and organizational and administrative documentation in accordance with the set goals, their analysis and	Knows the basics of analytical and research activities in medicine and healthcare; stages of scientific medical research and their content; design options for scientific medical research; the essence of errors in the results of scientific medical research and the reasons for their occurrence.
	Able to plan analytical and scientific medical research; Anticipate the occurrence of errors in the results of

application to solve professional problems	scientific medical research and take measures to minimize them.
	Skills in sampling using various methods; skills in applying the simplest methods of randomization in the formation of comparison groups; the skills of forming comparison groups by pair-conjugate selection; skills in calculating and evaluating a set of indicators based on the results of an observational (cohort) study; skills in calculating and evaluating a set of indicators based on the results of an experimental study; the skills of calculating and evaluating a set of indicators characterizing the validity of a diagnostic test.

<b>Code and wording of competence</b>	<b>Stages of competence formation</b>	
PC-1 the ability and readiness to implement a set of measures aimed at maintaining and strengthening health and including the formation of a healthy lifestyle, prevention of the occurrence and (or) spread of diseases, their early diagnosis, identification of the causes and conditions for their occurrence and development, as well as aimed at eliminating the harmful effects of environmental factors on human health	Knows	modern requirements for the sanitary-hygienic and anti-epidemic regime of various medical institutions;
	Can	Knows how to evaluate action of environmental factors on the human body.
	owns	The skill of developing a plan of preventive measures to prevent the negative impact of environmental factors on the human body under the supervision of a teacher
PC-15 readiness to train patients and their relatives in basic hygiene measures of a health-improving nature, self-control skills of basic physiological indicators that contribute to the preservation and promotion of health, disease prevention	Knows	modern requirements for the sanitary-hygienic and anti-epidemic regime of various medical institutions;
	Can	Knows how to evaluate action of environmental factors on the human body.
	owns	The skill of developing a plan of preventive measures to prevent the negative impact of

		environmental factors on the human body under the supervision of a teacher
PC-16 readiness for educational activities to eliminate risk factors and develop healthy lifestyle skills	Knows	risk factors disease development and healthy lifestyle habits
	Can	carry out information, educational and sanitary-educational work on elimination of risk factors and formation of healthy lifestyle habits
	owns	the skills of educational activities to eliminate risk factors and the formation of healthy lifestyle skills

## ANNOTATION

The discipline "Epidemiology" is intended for students of the direction 31.05.01 "Medicine" and is included in the mandatory part of the curriculum.

The total labor intensity of mastering the discipline is 3 credits, 108 hours. The curriculum provides for lectures (18 hours), practical classes (54 hours), independent work of students (36 hours). The discipline is implemented in the 5th year in the 9th semester. Assessment of learning outcomes: exam.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education was used in the specialty 31.05.01 "General Medicine" (specialist training level).

For the successful study of the discipline "Epidemiology" students should have the following preliminary competencies:

- ability for abstract thinking, analysis, synthesis (OK-1);
- the ability and willingness to solve standard tasks of professional activity using information, bibliographic resources, biomedical terminology, information and communication technologies and taking into account the basic requirements of information security (OPK-1);
- ability and willingness to implement ethical and deontological principles in professional activities (GPC-4);
- readiness to use the basic physical-chemical, mathematical and other natural science concepts and methods in solving professional problems (OPK-7);
- ability to participate in scientific research (PC-21).

The epidemiology program provides for the training of a new generation doctor who owns the entire spectrum of epidemiological studies of both infectious and non-infectious pathologies. Epidemiology is considered as a set of specific cognitive and practical activities aimed at protecting the health of the population from infectious and non-infectious diseases, as the sum of epidemiological knowledge about individual diseases and groups of diseases, as the science of the epidemic process. The main subject of epidemiology is morbidity.

The acquisition of professional knowledge and practical skills is carried out through the consistent study of the epidemiological approach to the study of diseases, general epidemiology, epidemiological diagnosis, methods of epidemiological research, disinfection, sterilization, disinsection and deratization, immunoprophylaxis, private epidemiology of anthroponoses, zoonoses and sapronoses in practical classes, through independent study recommended literature. The solution of situational problems of varying degrees of complexity, as close as possible to the conditions of practical activity, the analysis of materials from outbreaks of infectious diseases make it possible to develop the skills to assess the epidemic situation, formulate conclusions, make decisions, and formalize them in the form of epidemiological survey acts, reports on outbreaks of infectious diseases. students, analyzing digital material on the incidence of a specific disease in a particular locality, they perform individual work aimed at identifying causal relationships between the incidence and the factors that determine it. An epidemiological diagnosis is formulated and a set of preventive and anti-epidemic measures is being developed.

Knowledge control is carried out using initial, milestone, final test tasks.

### **Goals and objectives of the discipline.**

**The purpose of studying the discipline**"Epidemiology" - to master the theoretical and methodological foundations of the prevention of infectious and non-infectious diseases.

### **Tasks**disciplines:

1. The acquisition by students of knowledge in the field of epidemiology, a systematic understanding of the causes and spread of infectious and non-communicable diseases;

2. Formation of practical knowledge, skills and abilities in:

- dynamic assessment of the epidemic situation in a certain area based on methodological epidemiological principles;

- epidemiological examination of foci of infectious diseases, methods of epidemiological diagnosis of priority nosological forms;

- the choice of anti-epidemic measures appropriate to the epidemic situation, taking into account their effectiveness and their competent implementation;

- dynamic assessment of the effectiveness of anti-epidemic measures and the quality of work of officials and organizational structures of the anti-epidemic system.

As a result of studying this discipline, students form the following professional competencies:

As a result of studying this discipline, students form the following universal competencies:

Name of the category (group) of universal competencies	Code and name of the universal competence (the result of mastering)	Code and name of the indicator of achievement of competence
Life safety	UK-8Able to create and maintain safe living conditions in everyday life and in professional activities to preserve the natural environment, ensure the sustainable development of society, including in the event of a threat and the occurrence of emergencies and military conflicts	UK-8.4 Able to recognize and evaluate dangerous and emergency situations, determine ways to protect against them, provide self- and mutual assistance in case of dangers

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
UK-8.4 Able to recognize and evaluate dangerous and emergency situations, determine ways to protect against them, provide self- and mutual assistance in case of dangers	Knows the signs of dangerous and emergency situations, ways to protect against them, methods of providing self- and mutual assistance in case of dangers
	Able to identify signs of dangerous and emergency situations, determine the necessary ways to protect against them.
	Possesses the skill of determining the necessary methods of protection in case of emergencies, providing self- and mutual assistance in case of dangers.

As a result of studying this discipline, students form the following general professional competencies:

Name of the category (group) of universal competencies	Code and name of general professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Healthy lifestyle	OPK-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.4. To be able to analyze and interpret the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems.
Primary Health Care	OPK-6. Able to organize patient care, provide primary health care, ensure the organization of work and the adoption of professional decisions in emergency conditions at the prehospital stage, in emergency situations, epidemics and in centers of mass destruction	GPC-6.3. To master the algorithm for providing first aid to those affected in the foci of especially dangerous infections, in case of deterioration of the radiation situation and natural disasters (isolation, emergency specific and non-specific prevention, etc.)
Scientific and organizational activities	OPK-11. Able to prepare and apply scientific, research and production, design, organizational, managerial and regulatory documentation in the healthcare system	GPC-11.1. To be able to search and select scientific, legal, organizational and administrative documentation in accordance with the set goals, their analysis and application to solve professional problems

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
GPC-5.4. To be able to analyze and interpret the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems.	<b>Knows m</b> Methods of physical, laboratory, instrumental examination of a patient to solve professional problems.
	<b>Can</b> analyze the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems.
	<b>Owens a skill</b> interpretation of data on the state of the human body obtained in the study of the function of human organs and systems in normal and pathological conditions
GPC-6.3. Own the algorithm for providing first aid to those affected in the foci of especially dangerous infections, in case of	<b>Knows</b> the basics of providing first aid to those affected in the foci of especially dangerous infections, in case of deterioration of the radiation situation and natural disasters.



deterioration of the radiation situation and natural disasters (isolation, emergency specific and non-specific prevention, etc.)	<b>Can</b> under the leadership to provide first aid to those affected in the foci of especially dangerous infections, in case of deterioration of the radiation situation and natural disasters.
	<b>Capable</b> under the guidance in accordance with the algorithm, provide first aid to those affected in the foci of especially dangerous infections, in case of deterioration of the radiation situation and natural disasters.
GPC-11.1. To be able to search and select scientific, legal, organizational and administrative documentation in accordance with the set goals, their analysis and application to solve professional problems	<b>Knows</b> sources, methods of search and selection of scientific, legal, organizational and administrative documentation in accordance with the set goals.
	<b>Can</b> search and select scientific, legal, organizational and administrative documentation in accordance with the set goals.
	<b>Owns a skill</b> analysis and application of scientific, regulatory, legal and organizational and administrative documentation in accordance with the solution of professional tasks

As a result of studying this discipline, students form the following professional competencies:

Name of the category (group) of universal competencies	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of professional activity: medical	PC-14 Ready to organize and control the immunoprophylaxis of infectious diseases in the adult population in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-14.2 Knows the principles of the use of specific and non-specific prevention of infectious diseases, the national calendar of preventive vaccinations and the calendar of preventive vaccinations according to epidemic indications
		PC-14.3 Able to draw up a plan for the immunoprophylaxis of infectious diseases in the adult population in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care

	<p>PC-15</p> <p>Able and ready to carry out anti-epidemic measures, organize the protection of the population in foci of especially dangerous infections, in case of deterioration of the radiation situation, natural disasters and other emergencies</p>	<p>PC-15.1</p> <p>Knows the rules for conducting sanitary and anti-epidemic measures</p>
		<p>PC-15.2</p> <p>Able to determine medical indications for the introduction of restrictive measures (quarantine) and indications for referral to a specialist doctor</p>
		<p>PC-15.3</p> <p>Able to draw up a plan for conducting sanitary and anti-epidemic measures in the event of an outbreak of infection</p>
<p>Type of professional activity: organizational and managerial</p>	<p>PC-17</p> <p>Ready to participate in the assessment of the quality of medical care using the main medical and statistical indicators</p>	<p>PC-17.1</p> <p>Knows the organization of medical care in medical organizations that provide medical care on an outpatient basis, including at home when a medical worker is called</p>

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
<p>PC-14.2</p> <p>Knows the principles of the use of specific and non-specific prevention of infectious diseases, the national calendar of preventive vaccinations and the calendar of preventive vaccinations according to epidemic indications</p>	<p><b>Knows</b> principles of application of specific and non-specific prevention of infectious diseases</p>
	<p><b>Can</b> prescribe methods of specific and non-specific prevention of infectious diseases, including taking into account the national calendar of preventive vaccinations and the calendar of preventive vaccinations according to epidemic indications</p>
	<p><b>Owns a skill</b> self-appointment of methods for specific and non-specific prevention of infectious diseases, including taking into account the national calendar of preventive vaccinations and the calendar of preventive vaccinations according to epidemic indications</p>
<p>PC-14.3</p> <p>Able to draw up a plan for the immunoprophylaxis of infectious diseases in the adult population in accordance with the current procedures for the provision of</p>	<p><b>Knows</b> principles for drawing up a plan for the immunoprophylaxis of infectious diseases in the adult population in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

<p>medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>Can</b> use under control the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care to draw up a plan for immunoprophylaxis of infectious diseases in the adult population.</p>
	<p><b>Capable on your own</b> draw up a plan for the immunoprophylaxis of infectious diseases in the adult population in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-15.1 Knows the rules for conducting sanitary and anti-epidemic measures</p>	<p><b>Knows</b> basics of sanitary and anti-epidemic measures.</p>
	<p><b>Can</b> support sanitary and anti-epidemic measures in professional activities.</p>
	<p><b>Owens a skill</b> implementation of sanitary and anti-epidemic measures in professional activities</p>
<p>PC-15.2 Able to determine medical indications for the introduction of restrictive measures (quarantine) and indications for referral to a specialist doctor</p>	<p><b>Knows</b> medical indications for the introduction of restrictive measures (quarantine) and indications for referral to a specialist doctor</p>
	<p><b>Can</b> under control, determine medical indications for the introduction of restrictive measures (quarantine) and indications for referral to a specialist doctor</p>
	<p><b>Capable on your own</b> determine medical indications for the introduction of restrictive measures (quarantine) and indications for referral to a specialist doctor</p>
<p>PC-15.3 Able to draw up a plan for conducting sanitary and anti-epidemic measures in the event of an outbreak of infection</p>	<p><b>Knows</b> principles of planning and conducting sanitary and anti-epidemic measures in the event of a focus of infection</p>
	<p><b>Can</b> under control, draw up a plan for conducting sanitary and anti-epidemic measures in the event of a focus of infection</p>
	<p><b>Capable on your own</b> draw up a plan for conducting sanitary and anti-epidemic measures in case of an outbreak of infection</p>
<p>PC-17.1 Knows the organization of medical care in medical organizations that provide medical care on an</p>	<p><b>Knows</b> the basics of organizing medical care in medical organizations providing medical care on an outpatient basis, including at home when a medical worker is called</p>
	<p><b>Can</b> calculate the need for outpatient medical care in medical organizations providing outpatient medical care</p>

outpatient basis, including at home when a medical worker is called	<b>Owens a skill</b> determining the need for outpatient medical care in medical organizations providing outpatient medical care, depending on the assigned population, epidemiological and other conditions.
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For the formation of the above competencies within the discipline "Epidemiology" the following methods of active / interactive learning are used: simulation forms - solving problem situations and diagnostic tasks.

## ANNOTATION

The discipline "Medical Physics" is intended for students of the educational program "Medicine". This course is included in mandatory part of the curriculum and is implemented in the 2nd year, 3rd semester. The labor intensity of the discipline in accordance with the training curriculum is 4 credit units and 144 academic hours.

The work program is compiled in accordance with the requirements of the federal state educational standard of higher education (specialist level), approved by order of the Ministry of Education and Science of the Russian Federation dated February 9, 2016 No. 95.

Students are trained on the basis of the continuity of knowledge and skills obtained in the study of the following disciplines: "Medical Informatics, Mathematics", "Philosophy", "History".

The content of the course "Medical Physics".

The subject of medical physics. Tasks, research methods. Methodological issues of medical physics. Introduction to the course of medical physics. Purpose, tasks and characteristics of the subject. The main sections of medical physics. Relationship with other disciplines. History of the development of medical physics. The contribution of domestic and foreign scientists to the development of medical physics. The value of medical physics for theoretical and practical medicine. Communication of medical physics with other sciences. Directions of development of modern medical physics.

Mechanics of rotational motion. Basic concepts. Equation of the dynamics of rotational motion. The concept of free axes of rotation, degrees of freedom. Centrifugation. Biomechanical properties of skeletal muscles. Biomechanics of skeletal joints. Articulation and leverage in the human musculoskeletal system. Mechanical work of man. The vestibular apparatus as an inertial orientation system. The nature of sound. Physical characteristics. characteristics of the auditory sensation. Physical foundations of sound research methods in the clinic. Biophysics of hearing. Interaction of ultrasound with biological objects. Ultrasound and its application in medicine. Ultrasonic diagnostic methods. Fundamentals of ultrasound

stimulation and ultrasound therapy. Ultrasound in surgery. Ultrasound in pharmacy. Flow and properties of liquids.

Viscosity of a liquid. Newton's equation. Newtonian and non-Newtonian fluids. The flow of a viscous fluid through pipes. Poiseuille formula. Movement of bodies in a viscous fluid. Stokes law. Methods for determining the viscosity of a liquid. Clinical method for determining blood viscosity. Laminar and turbulent flows. Reynolds number. Biophysical patterns of blood flow through the vessels. Biophysical features of the aorta. Biophysical features of the arterioles of the systemic circulation.

Biological electrodynamics. Basic provisions of the electromagnetic field. Maxwell's Material Equations. Interaction of electromagnetic field with matter. Maxwell's basic equations. Radiation and propagation of the electromagnetic field. Electromagnetic spectrum (scale of electromagnetic waves). Transformation of the electric field by physical media. Influence of electric fields on cells. Interaction of the electric component of the electromagnetic field with the body. Biological effect of low frequency electromagnetic field. Biological action of high frequency electromagnetic field. Frequency-dependent biological effects of the electromagnetic field. Application of electromagnetic field in medicine.

Ionizing radiation. Fundamentals of Dosimetry. Physical basis of ionizing radiation. X-ray radiation. Bremsstrahlung radiation. Characteristic x-ray radiation. Atomic x-ray spectra. Physical aspects of the interaction of X-rays with matter. Physical foundations for the use of X-ray radiation in medicine.

Radioactivity. Interaction of ionizing radiation with matter. Biophysical basis of the action of ionizing radiation on the body. Detectors of ionizing radiation. The use of radionuclides and neutrons in medicine. Charged particle accelerators and their application in medicine. Radiation dose and exposure dose. dose rate. Quantitative assessment of the biological effect of ionizing radiation. equivalent dose. dosimetric devices. Protection against ionizing radiation.

### **Goals and objectives of the discipline.**

**Targetto** form in students a holistic view of the theoretical foundations and basic physicochemical, mathematical and other natural science concepts, and methods in solving problems in biological systems.

**Tasks:**

- the acquisition by students of knowledge on the collection and analysis of patient complaints, his medical history, examination results, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of a disease;
- the acquisition by students of knowledge in medical physics, including those physical principles that underlie the functioning of cells, organs and tissues of the human body;
- the acquisition by students of knowledge in medical physics, including consideration of biophysical processes and properties relating to organs, systems and tissues of the human body in normal and pathological conditions;
- acquisition of scientific outlook by students; the ability to conduct an active dialogue on scientific issues of physical research; the ability to present the results obtained in the form of written (scientific article) and oral communications (reports).

For the successful study of the discipline "Medical Physics", students must have the following preliminary competencies:

- OK-1 - the ability to abstract thinking, analysis, synthesis;
- OK-2 - the ability to use the foundations of philosophical knowledge to form a worldview position;
- OK-3 - the ability to analyze the main stages and patterns of the historical development of society in order to form a civic position;
- GPC-5 - the ability and willingness to analyze the results of their own activities to prevent professional errors;
- GPC-7 - readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems;
- PC-6 - the ability to apply system analysis in the study of biological systems.

As a result of studying this discipline, students form the following universal competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of the universal competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Systems and critical thinking	UK-1 Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	UK-1.1 Able to identify problem situations and search for the necessary information to solve problems in the professional field

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
UK-1.1 Able to identify problem situations and search for the necessary information to solve problems in the professional field	<b>Knows</b> a methodology for setting a goal and determining ways to achieve it
	<b>Can</b> determine the essence of the problem situation and the stages of its resolution, taking into account variable contexts
	<b>Capable</b> independently collect, systematize and critically analyze the information necessary to develop an action strategy to resolve a problem situation

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
information literacy	OPK-10 Able to understand the principles of operation of modern information technologies and use them to solve problems of professional activity	GPC-10.1 Able to use modern information and communication tools and technologies in professional activities

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-10.1 Able to use modern information and communication tools and	<b>Knows</b> modern information and communication tools and technologies used in professional medical activities



technologies in professional activities	<b>smartert</b> use modern information and communication tools and technologies in professional medical activities
	<b>Owns a skill</b> use of modern information and communication tools and technologies in professional medical activities

## ANNOTATION

The working program "Pharmacology" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the basic part of the curriculum, not 3 and 4 courses are implemented in 5, 6 and 7 semesters.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for training specialists in the profile "general practitioner" were used.

The discipline is studied in the amount of 288 hours (8 credits), lectures (54 hours), practical classes (126 hours), laboratory work (0 hours) and independent work (99 hours and 27 hours for exam preparation). Studying the pharmacology course ends with an exam at the end of the 7th semester.

The discipline "Pharmacology" is closely related to other disciplines. In her research, she relies on the biological sciences and provides for the preliminary mastery of such disciplines as: anatomy, histology, cytology, biology, physiology, inorganic, physical and organic chemistry, biochemistry, microbiology, etc.

### **Goals and objectives of the discipline.**

**Target**programs - students mastering the main provisions of general pharmacology and pharmacology of individual body systems, the mechanisms of action of drugs, knowledge of molecular targets for drugs, the development of future specialists in complex thinking, which allows predicting the positive and negative aspects of the effects of drugs, as well as their combinations, the formation the ability to apply the acquired knowledge in professional activities.

### **Tasks:**

- to master the basic information on general pharmacology, the mechanisms of action of drugs on biological targets, pharmacokinetics, pharmacodynamics and the use of the main groups of drugs;

- to teach students the basic principles of preparing prescriptions and compiling prescriptions, the ability to write prescriptions for medicines in various dosage forms and combinations;

- be able to analyze the effect of drugs at the level of the organism, organ, cell, subcellular structures and molecules;

- know the principles of action of the main pharmacotherapeutic groups of medicinal substances, the issues of the molecular mechanism of their action and the safety profile;

- determine the indications and contraindications for prescribing drugs for major diseases;

- take into account the influence of various factors (gender, weight, age, medical history, comorbidities, use of other drugs, etc.) on drug therapy;

- have an idea of drug toxicology and principles of first aid for acute drug poisoning;

- predict and timely prevent the development of adverse side reactions of medicinal substances, based on aspects of the molecular action of drugs.

As a result of studying this discipline, students develop the following competencies:

As a result of studying this discipline, students form the following general professional competencies:

Name of the category (group) of universal competencies	Code and name of general professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Healthy lifestyle	OPK-3 Capable of countering and combating doping in sport	GPC-3.1 Knows the concept of doping, the general principles of the fight against doping, the health risk from the use of doping
		GPC-3.2 Able to conduct explanatory work on the medical and legal consequences of doping
		GPC-3.3 Has the skills to carry out explanatory and preventive work to prevent the use of doping in sports

Diagnostic instrumental examination methods	GPC-4 Able to use medical devices prescribed by the order of medical care, as well as conduct examinations of the patient in order to establish a diagnosis	GPC-4.1 Knows how to use medical devices provided for by the procedure for providing medical care
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-3.1 Knows the concept of doping, the general principles of the fight against doping, the health risk from the use of doping	He knows the history of doping, the main directions of the development of doping in sports, methods for its detection and use, regulatory legislation in the field of combating doping, the main groups of drugs used as doping.
	Can detect signs of doping
	Possesses the skill of planning preventive measures for the use of doping
GPC-3.2 Able to conduct explanatory work on the medical and legal consequences of doping	Knows information resources for planning anti-doping preventive work
	Knows how to use information resources to plan preventive anti-doping work
	Has the skill of using information resources for planning preventive work on the fight against doping
GPC-3.3 owns skills holding explanatory And preventive work to prevent	Knows the methods of conducting explanatory and preventive work to prevent the use of doping in sports
	Knows how to plan explanatory and preventive work to prevent the use of doping in sports
	Possesses the skills of planning and conducting explanatory and preventive work to prevent the use of doping in sports.
GPC-4.1 Knows how to use medical devices provided for by the procedure for providing medical care	Knows the basic medical devices, specialized equipment, technologies provided for by the procedure for providing medical care
	Knows how to use the procedures for the provision of medical care for the use of medical devices, specialized equipment and medical technologies.
	Proficient in the use of medical devices, specialized equipment and medical technologies in accordance with the procedures for providing medical care.

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	PC-7 Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-7.1 Knows the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.
		PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
PC-7.1 Knows the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.	<b>Knows</b> the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.
	<b>Can</b> choose medicines, medical devices and nutritional therapy, taking into account medical indications and contraindications, possible complications caused by their use
	<b>Owns a skill</b> self-selection of medicines, medical devices and clinical nutrition, taking into account medical indications and contraindications, possible complications caused by their use
PC-7.2 Knows how to prescribe medicines, medical devices and	<b>Knows</b> current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care for the prescription of

<p>nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>medicines, medical devices and clinical nutrition, taking into account the diagnosis, age and clinical picture of the disease.</p>
	<p><b>Can</b>prescribe medicines, medical products and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p><b>own</b>the skill of self-administration of medicines, medical devices and clinical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

## ANNOTATION

The discipline "Public Health and Health Care, Health Economics" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the variable part of the curriculum as a compulsory discipline, is implemented at 3.4 courses in 6 and 7 semesters. The total labor intensity of the discipline is 324 hours, 9 credits

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" (specialist level of training), the curriculum for preparing students were used.

The course program is based on the basic knowledge gained by students:

the ability to analyze the main stages and patterns of the historical development of society in order to form a civic position (OK-3);

willingness to work in a team, tolerantly perceive social, ethnic, confessional and cultural differences (OK-8);

the ability to use the basics of economic and legal knowledge in professional activities (OPK-3);

### **Goals and objectives of the discipline.**

**Target** mastering the discipline: participation in the formation of competencies, including measures to preserve and strengthen public health, eliminate risk factors and promote a healthy lifestyle, organization, management and document flow in the field of protecting the health of citizens, conducting an examination of temporary disability, collecting and analyzing information on population health indicators, assessing the quality medical care, to form knowledge and skills in the field of public health and healthcare and its determinants; systems that ensure the preservation, strengthening and restoration of the health of the population as a whole and certain homogeneous groups of the population; organizational and medical technologies and management processes, including economic, administrative and organizational; health care development trends in foreign countries.

### **Discipline tasks:**

- acquisition by students of skills in the study and analysis of indicators characterizing the state of health of various age-sex, social, professional and other groups of the population;
- knowledge of the theoretical foundations of health care, organizational and legal foundations of health care and medical activities;
- familiarization of students with the principles of organization and work of medical institutions;
- training students in the preparation of basic accounting and reporting medical documentation;
- acquisition by students of skills on the main issues of examination of temporary and permanent disability;
- knowledge of methods and means of improving the functioning of health care institutions.
- introduction of new economic and medical and social technologies in the activities of medical institutions

As a result of studying this discipline, students form the following universal competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of the universal competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Development and implementation of projects	UK-2 Able to manage a project at all stages of its life cycle	UK-2.1 Able to formulate the goal, objectives of the project and draw up a schedule for its implementation
		UK-2.2 Able to organize a professional discussion of the project, justify the practical and theoretical significance of the expected results, distribute tasks and encourage others to achieve their goals



Teamwork and Leadership	UK-3 Able to organize and manage the work of the team, developing a team strategy to achieve the goal	UK-3.2 Able to implement basic management functions
Economic culture, including financial literacy	UK-10	UK-10.1 Understands the basic principles of the functioning of the economy and economic development, the goals of the form of state participation in the economy
		UK-10.2 Knows the principles of making economic decisions using methods of economic planning to achieve the set goals

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
UK-2.1 Able to formulate the goal, objectives of the project and draw up a schedule for its implementation	<b>Knows</b> principles of forming the concept of the project within the framework of the designated problem;
	<b>Can</b> develop the concept of the project within the framework of the designated problem, formulating the goal, objectives, relevance, significance (scientific, practical, methodological and other depending on the type of project), expected results and possible areas of their application;
	<b>owns</b> skills in drawing up a schedule for the implementation of the project as a whole and a control plan for its implementation;
UK-2.2 Able to organize a professional discussion of the project, justify the practical and theoretical significance of the expected results, distribute tasks and encourage others to achieve their goals	<b>Knows</b> methods for presenting and describing the results of project activities; methods, criteria and parameters for evaluating the results of the project;
	<b>Can</b> substantiate the practical and theoretical significance of the results obtained.
	<b>owns</b> the skills of organizing a professional discussion of the project.
UK-3.2 Able to implement basic management functions	<b>Knows</b> ways to establish contacts and build relationships with team members based on trust and mutual assistance
	<b>Can</b> establish contacts and build relationships with team members based on trust and mutual assistance

	<b>I</b> knows how to establish contacts and build relationships with team members based on trust and mutual assistance
UK-10.1 Understands the basic principles of the functioning of the economy and economic development, the goals of the form of state participation in the economy	Knows the main patterns underlying the activities of economic entities and their role in the functioning of the economy
	Able to generalize and analyze the necessary economic information to solve specific theoretical and practical problems
	Owens the basic methods and theoretical tools for studying economic phenomena and processes for solving problems in various areas of life
UK-10.2 Knows the principles of making economic decisions using methods of economic planning to achieve the set goals	<b>Knows</b> methods and tools for planning and predicting the results of their actions, in the professional field
	<b>Can</b> plan professional activities to achieve results in the professional field
	<b>owns</b> skills in predicting the results of professional activity

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Quality management	OPK-9 Able to implement the principles of quality management in professional activities	GPC-9.1 Owens the principles of the quality management system and marketing in professional activities
		GPC-9.2 Able to analyze and critically evaluate the quality of professional activity according to specified indicators
Scientific and organizational activities	OPK-11 Able to prepare and apply scientific, research and production, design, organizational, managerial and regulatory documentation in the healthcare system	GPC-11.3 Able to prepare information and analytical materials and references, incl. for public presentation of the results of scientific work (report, theses, article)

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-9.1 Owns the principles of the quality management system and marketing in professional activities	<b>Knows</b> regulatory documents for assessing the quality of medical care.
	<b>Can</b> use regulatory documents for assessing the quality of medical care.
	<b>Ownership</b> the skill of organizing medical activities in accordance with regulatory documents for assessing the quality of medical care.
GPC-9.2 Able to analyze and critically evaluate the quality of professional activity according to specified indicators	<b>Knows</b> main normative indicators for assessing the quality of professional medical activity of a general practitioner
	<b>Can</b> to organize work, use the normative indicators for assessing the quality of the professional medical activity of a general practitioner
	<b>Owns a skill</b> organization of professional medical activities of a general practitioner in accordance with the normative indicators of quality assessment.
GPC-11.3 Able to prepare information and analytical materials and references, incl. for public presentation of the results of scientific work (report, theses, article)	<b>Knows</b> fundamentals of the methodology for preparing publications, abstracts, reports for public presentation.
	<b>Can</b> draw up a plan for a scientific report, theses, articles.
	<b>Skill ownership</b> compiling a scientific report, theses, articles for public presentation and publication.

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-13 Able and ready to conduct preventive medical examinations, medical examinations and follow-up of healthy and chronically ill patients	PC-13.1 Knows regulatory legal acts and other documents regulating the procedures for conducting medical examinations, medical examinations and dispensary observation

		<p>PC-13.2</p> <p>Knows the Principles of dispensary observation of patients with non-communicable diseases and risk factors in accordance with regulatory legal acts and other documents</p>
Type of tasks of professional activity: research	<p>PC-16</p> <p>Capable and willing to analyze morbidity, disability and mortality rates to characterize the health of adults and adolescents</p>	<p>PC-16.1</p> <p>Knows the medical and statistical indicators of morbidity, disability and mortality that characterize the health of the attached population, the procedure for their calculation and evaluation</p>
		<p>PC-16.2</p> <p>Able to analyze data from official statistical reporting, including forms of federal and sectoral statistical observation</p>
	<p>PC-17</p> <p>Ready to participate in the assessment of the quality of medical care using the main medical and statistical indicators</p>	<p>PC-17.1</p> <p>Knows the organization of medical care in medical organizations that provide medical care on an outpatient basis, including at home when a medical worker is called</p>
		<p>PC-17.2</p> <p>Able to analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population</p>
	<p>PC-17.3</p> <p>Knows how to work with personal data of patients and information constituting a medical secret</p>	
Type of tasks of professional activity: organizational and managerial	<p>PC-19</p> <p>Ready to maintain medical records, including in electronic form</p>	<p>PC-19.1</p> <p>Knows the rules for issuing medical documentation in medical organizations that provide medical care on an outpatient basis, including at home when a medical worker is called</p>

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
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<p>PC-13.1</p> <p>Knows the regulatory legal acts and other documents regulating the procedures for conducting medical examinations, medical examinations and dispensary observation</p>	<p><b>Knows</b> regulatory legal acts and other documents regulating the procedures for conducting medical examinations, clinical examination and dispensary observation</p>
	<p><b>Can use</b> regulatory legal acts and other documents regulating the procedures for conducting medical examinations, medical examinations and dispensary observation in professional activities.</p>
	<p><b>Capable under control</b> draw up a plan for conducting medical examinations, medical examinations and dispensary observation of patients with non-communicable diseases and risk factors based on regulations and other</p>
<p>PC-13.2</p> <p>Knows the principles of dispensary observation of patients with non-communicable diseases and risk factors in accordance with regulatory legal acts and other documents</p>	<p>Knows the principles of dispensary observation of patients with non-communicable diseases and risk factors in accordance with regulatory legal acts and other documents</p>
	<p>Able to identify groups of patients with non-communicable diseases and risk factors for dispensary observation in accordance with regulations and other regulatory documents.</p>
	<p><b>Owens a skill</b> formation of groups of patients with non-communicable diseases and risk factors for dispensary observation in accordance with regulations and other regulatory documents.</p>
<p>PC-16.1</p> <p>Knows the medical and statistical indicators of morbidity, disability and mortality that characterize the health of the attached population, the procedure for their calculation and evaluation</p>	<p><b>Knows</b> medical and statistical indicators of morbidity, disability and mortality, characterizing the health of the attached population, the procedure for their calculation and evaluation</p>
	<p><b>Can use</b> statistical indicators of morbidity, disability and mortality that characterize the health of the attached population.</p>
	<p><b>Owens a skill</b> calculation of statistical indicators of morbidity, disability and mortality, characterizing the health of the attached population</p>
<p>PC-16.2</p> <p>Able to analyze data from official statistical reporting, including forms of federal and sectoral statistical observation</p>	<p><b>Knows</b> forms of official statistical reporting, including federal and sectoral statistical observation</p>
	<p><b>Can use</b> forms of official statistical reporting, including federal and sectoral statistical observation</p>
	<p><b>owns</b> the skill of analyzing data from official statistical reporting, including federal and sectoral statistical observation</p>

<p>PC-17.1</p> <p>Knows the organization of medical care in medical organizations that provide medical care on an outpatient basis, including at home when a medical worker is called</p>	<p><b>Knows</b> the basics of organizing medical care in medical organizations providing medical care on an outpatient basis, including at home when a medical worker is called</p>
	<p><b>Can</b> calculate the need for outpatient medical care in medical organizations providing outpatient medical care</p>
	<p><b>Owens a skill</b> determining the need for outpatient medical care in medical organizations providing outpatient medical care, depending on the assigned population, epidemiological and other conditions.</p>
<p>PC-17.2</p> <p>Able to analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population</p>	<p><b>Knows</b> principles for conducting analysis of medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population</p>
	<p><b>Can</b> under control analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population</p>
	<p><b>Capable on your own</b> analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population</p>
<p>PC-17.3</p> <p>Knows how to work with personal data of patients and information constituting a medical secret</p>	<p><b>Knows</b> rules for working with personal data, information constituting a medical secret</p>
	<p><b>Can</b> use guidelines governing the work with personal data, information constituting a medical secret</p>
	<p><b>Capable</b> work safely with documents containing personal data, information constituting a medical secret</p>
<p>PC-19.1</p> <p>Knows the rules for issuing medical documentation in medical organizations that provide medical care on an outpatient basis, including at home when a medical worker is called</p>	<p><b>Knows</b> medical documentation in medical organizations providing medical care on an outpatient basis, including at home when a medical worker is called</p>
	<p><b>Can</b> draw up medical documentation under control in medical organizations providing medical care on an outpatient basis, including at home when a medical worker is called</p>
	<p><b>Owens a skill</b> registration of medical documentation in medical organizations providing medical care on an outpatient basis, including at home when a medical worker is called</p>

For the formation of the above competencies within the discipline "Public Health and Health Care, Health Economics" the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training

programs.

2. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts, a lesson-conference.

The proportion of practical classes conducted in interactive forms is 10% of classroom time; independent extracurricular work - 42% of the time.

## ANNOTATION

The discipline "Dermatovenereology" is intended for students enrolled in the educational program "Medicine", is included in the basic part of the curriculum.

The discipline is implemented in the 4th year, is a mandatory clinical discipline.

When developing the working program of the discipline, the Federal State Educational Standard of Higher Education (the level of training of highly qualified personnel) in the specialty 31.05.01 "General Medicine" (the level of training is a specialist), the curriculum for preparing 4th year students in the discipline Dermatovenereology was used.

The total labor intensity of the discipline is 108 hours, 3 credits.

### **The place of the discipline "Dermatovenereology" in the structure of the OPOP:**

The academic discipline "Dermatovenereology" refers to the professional cycle of disciplines.

To study this academic discipline "Dermatovenereology", the following knowledge, skills and abilities acquired by specialists are required:

PC-5 readiness to collect patient complaints, medical history data, examination results, laboratory, instrumental, patho-anatomical and other studies in order to recognize the condition or establish the presence or absence of the disease.

PC-6 the ability to determine the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision.

PC-8 ability to determine the tactics of managing patients with various nosological forms

### **Goals and objectives of the discipline.**

**Course objective:** consists in mastering knowledge on etiology, epidemiology, pathogenesis, clinical manifestations, as well as the principles of



diagnosis and differential diagnosis, treatment and prevention of skin diseases, venereal diseases and sexually transmitted infections (STIs).

**Tasks:** -acquisition by students of knowledge of etiology, epidemiology, pathogenesis, clinic of skin infectious diseases and chronic dermatosis, STIs;

- teaching students the most important methods of physical examination, allowing timely diagnosis of skin diseases and STIs;

- teaching students to recognize the clinical signs of skin and venereal diseases when examining a patient, in determining the severity of the course of the pathological process;

- teaching students the ability to identify the leading clinical signs, symptoms, syndromes of skin diseases and STIs;

- teaching students to choose the best methods of laboratory and instrumental examination for major skin diseases, STIs and compiling an algorithm for differential diagnosis;

- training in carrying out a full range of therapeutic, rehabilitation and preventive measures among patients with various nosological forms of skin diseases and STIs;

- teaching students to provide first aid to patients with skin diseases and STIs in case of emergency;

- teaching students to choose the optimal schemes for etiotropic treatment of the most common skin diseases and STIs;

- training students in the preparation of medical documentation (medical record of an inpatient or outpatient with a skin disease and STIs, a certificate of incapacity for work, a statistical coupon, etc.);

- familiarization of students with the principles of organization and work of medical institutions providing assistance to patients with skin diseases and STIs;

- formation of skills in studying scientific literature and official statistical reviews;

- formation of communication skills with dermatological patients and with STIs, taking into account ethics and deontology, depending on the identified pathology and characterological characteristics of patients;

- formation of the student's communication skills with the team.

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Etiology and pathogenesis	OPK-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
		GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems
Treatment of diseases and conditions	OPK-7 Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.2 Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems	Knows the algorithm of the physical examination of the patient, the principles of clinical laboratory and instrumental diagnostics
	Able to conduct a physical examination of the patient, diagnose clinical manifestations of skin and venereal diseases; draw up a plan for the necessary examination and treatment of a dermatological patient; interpret the results of laboratory and instrumental research methods
	Owns the methods of clinical and instrumental

	examination of patients with skin diseases, venereal diseases and STIs
GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems	Knows general and special research methods in the main sections of dermatology and venereology; the main diagnostic techniques used for lesions of the skin and mucous membranes.
	Able to analyze information about the development and course of the disease; interpret the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by medical specialists.
	Possesses well-formed theoretical and practical skills that allow interpreting the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors.
GPC-7.2 Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data	Knows general and special methods of research and treatment in the main sections of dermatovenereology
	Able to apply objective methods of examination of the patient, to identify common and specific signs of dermatological and venereal disease; Determine indications for treatment for skin diseases, sexually transmitted infections (STIs), side effects when prescribing drugs
	Possesses knowledge on the basis of clinical, laboratory and instrumental data to evaluate and monitor the therapeutic effect and side effects when prescribing drugs, as well as other therapeutic agents and methods

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and	PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors

	<p>other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>
	<p>PC-5 Capable of making a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)</p>	<p>PC-5.1 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs</p> <p>PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis</p>
	<p>PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

	<p><b>PC-7</b> Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>PC-7.2</b> Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
<p><b>PC-4.3</b> Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors</p>	Knows the tactics of managing patients with skin diseases and STIs, etiology, pathogenesis, clinical picture, prevention, principles of examination and treatment
	Able to determine the need and scope of laboratory and instrumental examination of the patient, determine the indications for hospitalization of the patient, determine its urgency in case of skin diseases and sexually transmitted infections (STIs)
	Possesses the formed skills to determine the need and scope of laboratory and instrumental examination of a patient with skin diseases or STIs, the need to refer the patient for consultations to specialist doctors.
<p><b>PC-4.6</b> Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>	Knows the main official documents regulating the tactics of patient management and the procedure for providing medical care for skin diseases and STIs, etiology, pathogenesis, clinical picture, prevention, treatment principles
	Based on the clinical manifestations of skin and venereal diseases, is able to draw up a plan for the necessary examination and treatment of a dermatological (venereological) patient in accordance with clinical recommendations and standards of medical care
	Has knowledge of the procedure for providing medical care and conducting the necessary treatment for skin and venereal diseases, STIs; Knowledge for carrying out the necessary control of cure and subsequent dispensary observation of dermatological and venereal patients according to the treatment protocol.

<p>PC-5.1</p> <p>Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs</p>	<p>Knows the etiology, pathogenesis, clinical picture, prevention, principles of treatment of skin diseases, venereal diseases and STIs.</p>
	<p>Able to obtain information about the development and course of the disease; identify possible etiological factors, apply objective methods of examination of the patient, identify general and specific signs of dermatological and venereal diseases; assess the severity of the patient's condition; determine the need and sequence of application of special research methods (laboratory, radiological, endoscopic, functional), as well as consultations of narrow specialists, interpret the data obtained</p>
	<p>Possesses the knowledge to conduct a differential diagnosis, identify the features of the course of the disease and establish the final clinical diagnosis, conduct the necessary treatment for skin and venereal diseases, STIs, knowledge about possible complications and outcomes of the disease</p>
<p>PC-5.4</p> <p>Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis</p>	<p>Knows the necessary information about the development and course of the disease, according to the ICD-X revision</p>
	<p>Able to identify possible etiological factors, apply objective methods of examining the patient, identify general and specific signs of dermatological and venereal diseases necessary for making a diagnosis</p>
	<p>Possesses well-formed theoretical and practical skills, allowing to establish a diagnosis according to the ICD</p>
<p>PC-6.1</p> <p>Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows modern medicines and methods of their use for diseases and the patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>
	<p>Knows how to apply medicines, medical devices and clinical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>
	<p>Possesses the formed theoretical skills in the use of medicines, medical devices and clinical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care</p>

<p>PC-6.3</p> <p>Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows general and special methods of diagnosis and treatment of a patient with skin diseases, with STD.</p>
	<p>Able to apply objective methods of examination of the patient, to identify common and specific signs of dermatological and venereal disease; determine the indications for treatment for skin diseases and sexually transmitted infections (STIs) of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>
	<p>Possesses the formed theoretical knowledge of drawing up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-7.2</p> <p>Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows modern medicines, medical devices used to treat patients with skin and venereal diseases in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>
	<p>Knows how to determine indications for prescribing medicines, medical devices and medical nutrition, taking into account the standards of medical care</p>
	<p>Possesses theoretical knowledge on the prescription of medicines, medical devices and nutritional therapy, taking into account the diagnosis, age of the patient, the clinical picture of the disease in skin and venereal patients in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account standards medical care</p>

## ANNOTATION

The discipline "Neurology, Medical Genetics" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the mandatory part of the curriculum, is implemented in the 4.5 year in 8, 9 semesters. The total labor intensity of the discipline is 252 hours, 7 credits.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" (specialist level of training), the curriculum for preparing students were used.

The course program is based on the basic knowledge gained by students:

- willingness to solve standard tasks of professional activity using bibliographic resources, biomedical terminology, information and communication technologies, taking into account the basic requirements of information security (OPK-1);
- ability and willingness to implement ethical and deontological principles in professional activities (GPC-4);
- the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (OPK-9);

### **Goals and objectives of the discipline.**

**Target**mastering the discipline "Neurology, Medical Genetics" consists in studying the main diseases of the nervous system, acquiring the skills to build classifications, mastering the methodology for examining patients with pathology of the nervous system with the interpretation of indicators of laboratory and instrumental methods for examining the structures of the nervous system, mastering the principles of making a neurological diagnosis ( syndromic, topical, etiological) for the formation of clinical thinking of the future doctor.

**tasks**disciplines are:

- acquisition by students of knowledge of etiology, epidemiology, pathogenesis and risk factors of nervous diseases;
- teaching students the most important methods of objective examination, allowing timely diagnosis of damage to the nervous system;



-teaching students to recognize the clinical signs of neurological pathology when examining a patient, in determining the severity of the course of the pathological process;

-teaching students the ability to identify the leading syndromes of nervous diseases;

- teaching students to choose the best methods of laboratory and instrumental examination in case of major neurological diseases and compiling an algorithm for differential diagnosis;

- training in carrying out a full range of therapeutic, rehabilitation and preventive measures among patients with various nosological forms of neurological diseases;

- teaching students to provide first aid to patients in case of emergency;

- teaching students to choose the optimal schemes for etiopathogenetic treatment of the most common nervous system;

- familiarization of students with the principles of organization and work of medical institutions providing assistance to patients with neurological pathology;

- formation of skills in studying scientific literature and official statistical reviews;

- formation of communication skills with a neurological patient and his representatives, taking into account ethics and deontology, depending on the identified pathology and characterological characteristics of patients;

- formation of the student's communication skills with the team.

For the successful study of the discipline "Neurology, Neurosurgery and Medical Genetics", students should have the following preliminary competencies:

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
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Etiology and pathogenesis	OPK-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
		GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems
Treatment of diseases and conditions	OPK-7 Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods
		GPC-7.2 Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems	Knows the algorithm of the physical examination of the patient, the principles of clinical laboratory and instrumental diagnostics
	Able to conduct a physical examination of the patient, diagnose the clinical manifestations of diseases of the nervous system; draw up a plan for the necessary examination and treatment of a neurological patient;

	interpret the results of laboratory and instrumental research methods
	Owns methods of clinical and instrumental examination of patients with diseases of the nervous system
GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems	Knows general and special research methods in basic neurology; the main diagnostic techniques used in nervous diseases.
	Able to analyze information about the development and course of the disease; interpret the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by medical specialists.
	Possesses well-formed theoretical and practical skills that allow interpreting the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors.
GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods	Knows the basics of pharmacodynamics of drugs in diseases of the nervous system
	Knows how to use methodological recommendations when prescribing drugs for diseases of the nervous system
	Able to prescribe drugs for certain diseases of the nervous system
GPC-7.2 Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data	Knows general and special methods of research and treatment in the main sections of neurology
	Able to apply objective methods of examination of the patient, to identify common and specific signs of diseases of the nervous system; Determine the indications for the treatment of nervous diseases, side effects when prescribing drugs
	Possesses knowledge on the basis of clinical, laboratory and instrumental data to evaluate and monitor the therapeutic effect and side effects when prescribing drugs, as well as other therapeutic agents and methods

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors
		PC-4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care
	PC-5 Capable of making a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)	PC-5.1 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs
		PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis
	PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of	PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care

	<p>medical care, taking into account the standards of medical care</p>	<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-7 Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
<p>PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors</p>	<p>Knows the tactics of managing patients with diseases of the nervous system, etiology, pathogenesis, clinical picture, prevention, principles of examination and treatment</p> <p>Able to determine the need and scope of laboratory and instrumental examination of the patient, determine the indications for hospitalization of the patient, determine its urgency in diseases of the nervous system</p> <p>Possesses the formed skills to determine the need and scope of laboratory and instrumental examination of a patient with diseases of the nervous system, the need to refer the patient for consultations to specialist doctors.</p>
<p>PC-4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of</p>	<p>Knows the main official documents regulating the tactics of patient management and the procedure for providing medical care for diseases of the nervous system, etiology, pathogenesis, clinical picture, prevention, treatment principles</p>

<p>medical care, standards of medical care</p>	<p>Based on the clinical manifestations of skin and venereal diseases, he is able to draw up a plan for the necessary examination and treatment of a patient with diseases of the nervous system in accordance with clinical recommendations and standards of medical care</p>
	<p>Has knowledge of the procedure for providing medical care and conducting the necessary treatment for diseases of the nervous system; Knowledge for carrying out the necessary control of cure and subsequent dispensary observation of patients with diseases of the nervous system according to the treatment protocol.</p>
<p>PC-5.1 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs</p>	<p>Knows the etiology, pathogenesis, clinical picture, prevention, principles of treatment of diseases of the nervous system.</p>
	<p>Able to obtain information about the development and course of the disease; identify possible etiological factors, apply objective methods of examination of the patient, identify general and specific signs of a neurological disease; assess the severity of the patient's condition; determine the need and sequence of application of special research methods (laboratory, radiological, endoscopic, functional), as well as consultations of narrow specialists, interpret the data obtained</p>
	<p>Possesses knowledge for the purpose of differential diagnosis, identifying the features of the course of the disease and establishing the final clinical diagnosis, conducting the necessary treatment for diseases of the nervous system, knowledge about possible complications and outcomes of the disease</p>
<p>PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis</p>	<p>Knows the necessary information about the development and course of the disease, according to the ICD-X revision</p>
	<p>Able to identify possible etiological factors, apply objective methods of examining the patient, identify general and specific signs of a neurological disease necessary for making a diagnosis</p>
	<p>Possesses well-formed theoretical and practical skills, allowing to establish a diagnosis according to the ICD</p>
<p>PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and</p>	<p>Knows modern medicines and methods of their use for diseases and the patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>

<p>conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows how to apply medicines, medical devices and clinical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>
	<p>Possesses the formed theoretical skills in the use of medicines, medical devices and clinical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows general and special methods of diagnosis and treatment of a patient with diseases of the nervous system</p>
	<p>Able to apply objective methods of examination of the patient, to identify common and specific signs of a disease of the nervous system; determine the indications for treatment for diseases of the nervous system in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>
	<p>Possesses the formed theoretical knowledge of drawing up a treatment plan for a disease of the nervous system, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows modern medicines, medical devices used to treat patients with diseases of the nervous system in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>
	<p>Knows how to determine indications for prescribing medicines, medical devices and medical nutrition, taking into account the standards of medical care</p>
	<p>Possesses theoretical knowledge about the prescription of medicines, medical devices and nutritional therapy, taking into account the diagnosis, the age of the patient, the clinical picture of the disease of the nervous system in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care</p>

## ANNOTATION

The discipline "Infectious Diseases" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the mandatory part of the curriculum.

The discipline is implemented in the 5th year, 9.10 semesters.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for the training of specialists in the specialty 31.05.01 "General Medicine" were used.

The total labor intensity of mastering the discipline is 6 credits, 216 hours. The curriculum provides for 36 hours of lectures, 108 hours of practical training and independent work of the student (27 hours).

Teaching the discipline "Infectious Diseases" in the higher education system is an integral part of the training of a doctor in the specialty 31.05.01 - General Medicine.

When studying this discipline, students develop the skills of clinical and laboratory-instrumental diagnostics of major infectious and parasitic diseases, as well as the treatment of major infectious and parasitic diseases and the provision of emergency care in life-threatening conditions caused by infectious diseases, the organization of preventive and anti-epidemic measures in the foci of infectious diseases .

Successful mastering of the discipline is primarily ensured by the knowledge and skills gained in the study of biology, human anatomy, normal physiology, histology, pathological anatomy, pathophysiology, microbiology, pharmacology, propaedeutics of internal diseases and radiation diagnostics, hygiene, basics of life safety.

The knowledge and skills developed during the study of the discipline Infectious Diseases are necessary for mastering the following disciplines of the therapeutic profile: "internal diseases", "polyclinic therapy", as well as internships.



A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline.

The course program is based on the basic knowledge gained by specialists:

- readiness for the medical use of drugs and other substances, and their combinations in solving professional problems (OPK-8);
- readiness to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, patho-anatomical and other studies in order to recognize the condition or establish the presence or absence of the disease(PC-5);
- the ability to determine in patients the main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision(PC-6);
- the ability to determine the tactics of managing patients with various nosological forms (PC-8);
- readiness to provide medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases that are not accompanied by a threat to the patient's life and do not require emergency medical care (PC - 10).

### **Goals and objectives of the discipline.**

**The purpose of studying the discipline "Infectious Diseases"** is the formation of professional competencies in the field of knowledge in general and particular infectology, the ability to apply the acquired knowledge for the diagnosis, treatment and prevention of infectious diseases.

Specialist in the direction of training (specialty) 31.05.01 General medicine must solve the following professional tasks in accordance with the types of professional activity.

### **Tasks:**

#### ***in preventive activities:***

- implementation of dispensary observation of patients;

***in diagnostic activity:***

- diagnosis of infectious diseases based on clinical and laboratory-instrumental research methods;
- diagnosis of emergency conditions in infectious diseases;

***in medical activities:***

- treatment of infectious diseases using therapeutic methods;
- provision of medical care in emergency conditions that have developed with infectious diseases;
- carrying out medical and evacuation measures and providing medical care to the population in extreme conditions of epidemics.

***rehabilitation activities:***

- carrying out rehabilitation measures among the population who have had an infectious disease;

***organizational and managerial activities:***

- maintenance of accounting and reporting medical documentation filled in for an infectious patient;

***research activities:***

- analysis of scientific literature and official statistical reviews;
  - preparation of abstracts on modern scientific problems of infectious pathology.

IN result study given disciplines at students

formed the following general cultural and general professional competencies (elements of competencies):

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
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Etiology and pathogenesis	OPK-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
		GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems
Treatment of diseases and conditions	OPK-7 Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.2 Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems	Knows the algorithm of the physical examination of the patient, the principles of clinical laboratory and instrumental diagnostics
	Able to conduct a physical examination of the patient, diagnose the clinical manifestations of infectious diseases; draw up a plan for the necessary examination and treatment of an infectious patient; interpret the results of laboratory and instrumental research methods
	Owns methods of clinical and instrumental examination of patients with infectious diseases
GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems	Knows general and special research methods in the clinic of infectious diseases; the main diagnostic techniques used in nervous diseases.
	Able to analyze information about the development and course of the disease; interpret the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by medical specialists.
	Possesses well-formed theoretical and practical skills that allow interpreting the data obtained during the physical, laboratory, instrumental

	examination of the patient, during consultations of the patient by specialist doctors.
GPC-7.2 Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data	Knows general and special methods of research and treatment in the main sections of the clinic of infectious diseases
	Able to apply objective methods of examination of the patient, to identify common and specific signs of infectious diseases; Determine indications for the treatment of infectious diseases, side effects when prescribing drugs
	Possesses knowledge on the basis of clinical, laboratory and instrumental data to evaluate and monitor the therapeutic effect and side effects when prescribing drugs, as well as other therapeutic agents and methods

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors
		PC-4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care
	PC-5 Capable of making a diagnosis based on the current International Statistical Classification of	PC-5.1 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features,

	Diseases and Related Health Problems (ICD)	complications and outcomes of diseases of internal organs
	<p>PC-5.4</p> <p>Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis</p>	<p>PC-6.1</p> <p>Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-6</p> <p>Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-6.3</p> <p>Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-7</p> <p>Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-7.2</p> <p>Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

	<p>PC-14 Ready to organize and control the immunoprophylaxis of infectious diseases in the adult population in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-14.1 Knows preventive measures taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
<p>PC-4.3  Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors</p>	<p>Knows the tactics of managing patients with infectious diseases, etiology, pathogenesis, clinical picture, prevention, principles of examination and treatment</p>
	<p>Able to determine the need and scope of laboratory and instrumental examination of the patient, determine the indications for hospitalization of the patient, determine its urgency in infectious diseases</p>
	<p>Owens the formed skills to determine the need and scope of laboratory and instrumental examination of a patient with infectious diseases, the need to refer the patient for consultations to specialist doctors.</p>
<p>PC-4.6  Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>	<p>Knows the main official documents regulating the tactics of patient management and the procedure for providing medical care for infectious diseases, etiology, pathogenesis, clinical picture, prevention, treatment principles</p>
	<p>Based on the clinical manifestations of infectious diseases, is able to draw up a plan for the necessary examination and treatment of a patient with infectious diseases in accordance with clinical recommendations and standards of medical care</p>
	<p>Has knowledge of the procedure for providing medical care and conducting the necessary treatment for infectious diseases;</p> <p>Knowledge for carrying out the necessary control of cure and subsequent dispensary observation of</p>

	patients with infectious diseases according to the treatment protocol.
PC-5.1  Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs	Knows the etiology, pathogenesis, clinical picture, prevention, principles of treatment of infectious diseases
	Able to obtain information about the development and course of the disease; identify possible etiological factors, apply objective methods of examination of the patient, identify general and specific signs of an infectious disease; assess the severity of the patient's condition; determine the need and sequence of application of special research methods (laboratory, radiological, endoscopic, functional), as well as consultations of narrow specialists, interpret the data obtained
	Possesses knowledge for the purpose of differential diagnosis, identifying the features of the course of the disease and establishing the final clinical diagnosis, conducting the necessary treatment for infectious diseases, knowledge about possible complications and outcomes of the disease
PC-5.4  Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis	Knows the necessary information about the development and course of the disease, according to the ICD-X revision
	Able to identify possible etiological factors, apply objective methods of examining a patient, identify general and specific signs of an infectious disease necessary for making a diagnosis
	Possesses well-formed theoretical and practical skills, allowing to establish a diagnosis according to the ICD
PC-6.1  Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	Knows modern medicines and methods of their use for diseases and the patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)
	Knows how to apply medicines, medical devices and clinical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)
	Possesses the formed theoretical skills in the use of medicines, medical devices and clinical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of

	medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care
<p>PC-6.3</p> <p>Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	Knows general and special methods of diagnosis and treatment of a patient with infectious diseases
	Able to apply objective methods of examination of the patient, to identify common and specific signs of an infectious disease; identify indications for treatment of infectious diseases in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)
	Possesses the formed theoretical knowledge of drawing up a treatment plan for infectious diseases taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care
<p>PC-7.2</p> <p>Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	Knows modern medicines, medical devices used to treat patients with infectious diseases in accordance with the current procedures for providing medical care, clinical guidelines (treatment protocol)
	Knows how to determine indications for prescribing medicines, medical devices and medical nutrition, taking into account the standards of medical care
	Possesses theoretical knowledge about prescribing medicines, medical devices and clinical nutrition, taking into account the diagnosis, age of the patient, clinical picture of infectious diseases in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol) on the provision of medical care, taking into account the standards of medical care
<p>PC-14.1</p> <p>Knows preventive measures taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking</p>	<b>Knows</b> methods and means of prevention, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account standards
	<b>Can</b> take into account the diagnosis of the patient, use the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical



<p>into account the standards of medical care</p>	<p>care for planning and prescribing preventive measures</p>
	<p><b>Capable on your own</b>taking into account the patient's diagnosis, use the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care for planning and prescribing preventive measures.</p>

## ANNOTATION

The discipline "Medical Rehabilitation" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the mandatory part of the curriculum, is implemented in the 5th year in the 9th semester. The total labor intensity of the discipline is 108 hours, 3 credits.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" (specialist level of training), the curriculum for preparing students were used.

The course program is based on the basic knowledge gained by students:  
the ability to use the methods and means of physical culture to ensure a full-fledged social and professional activity (OK-6);  
willingness to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies and taking into account the basic requirements of information security (OPK-1);  
the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (OPK-9);

### **Goals and objectives of the discipline.**

**aim**The program is the formation of systemic knowledge and skills of students on issues of medical rehabilitation.

### **Tasks:**

- organization studyrehabilitation and prevention of disability;
- teaching students the ability to choose means and methodsrehabilitation and prevention of disability;
- the formation of students' practical skills related to the organizationrehabilitation and prevention of disability.

### **Requirements for the results of mastering the discipline.**

As a result of studying this discipline, students form the following universal competencies:

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
UK-9.1 Knows the principles of non-discriminatory interaction with persons with disabilities and people with disabilities in the professional and social spheres	Knows the basics of medical rehabilitation and rehabilitation, spa treatment
	Able to apply the principles of non-discriminatory interaction in communication in various spheres of life, taking into account the socio-psychological characteristics of persons with disabilities
	Possesses the skills of non-discriminatory interaction in communication in various spheres of life, taking into account the socio-psychological characteristics of persons with disabilities
UK-9.2 Able to plan and carry out professional activities with persons with disabilities and people with disabilities	Knows basic defectological knowledge for interaction with persons with disabilities or disabilities in the professional field
	Able to apply defectological knowledge to interact with persons with disabilities or disabilities in the professional field
	Has the skills to interact with people with disabilities or disabilities in the professional field
UK-9.3 Possesses the skills of interaction in the social and professional spheres with persons with disabilities and people with disabilities	Knows the indications and contraindications for spa treatment, physiotherapy, exercise therapy massage. Methods of passive mechanotherapy, kinesiotaping, group classes, hydrokinesitherapy
	Able to apply the skills of interaction in the social and professional spheres with persons with disabilities and people with disabilities
	Has the skills to assess a barrier-free environment and features of deontological issues of communication and interaction with people with disabilities

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of the universal competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Inclusive competence	UK-9 Able to use basic defectological knowledge in social and professional areas	UK-9.1 Knows the principles of non-discriminatory interaction with persons with disabilities and people with disabilities in the professional and social spheres

		UK-9.2 Able to plan and carry out professional activities with persons with disabilities and people with disabilities
		UK-9.3 Possesses the skills of interaction in the social and professional spheres with persons with disabilities and people with disabilities

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Diagnostic instrumental examination methods	OPK-4 Able to use medical devices provided for by the order of medical care, as well as conduct examinations of the patient in order to establish a diagnosis	GPC-4.2 Able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care, taking into account the standards of medical care in order to establish a diagnosis
medical rehabilitation	OPK-8 Able to implement and monitor the effectiveness of the patient's medical rehabilitation, including the implementation of individual rehabilitation and habilitation programs for the disabled, to assess the patient's ability to work	GPC-8.1 Knows how to prescribe, implement and monitor the effectiveness of the patient's medical rehabilitation, including the implementation of individual rehabilitation and habilitation programs for the disabled  GPC-8.2 Able to assess the patient's ability to work

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the indicator for evaluating the result of training in the discipline)</b>
GPC-4.2 Able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols)	Knows the pathogenesis, clinical features of the course of patients with the consequences of stroke, after arthroplasty, Parkinson's disease, shoulder joint injury, coronavirus infection  Able to evaluate on functional scales in order to use

on the provision of medical care, care, taking into account the standards of medical care in order to establish a diagnosis	medical devices in accordance with the current procedures for the provision of medical, clinical recommendations
	Possesses the skills of setting a short-term and long-term rehabilitation goal, drawing up a rehabilitation plan, evaluating its effectiveness
GPC-8.1 Knows how to prescribe, implement and monitor the effectiveness of the patient's medical rehabilitation, including the implementation of individual rehabilitation and habilitation programs for the disabled	Knows the basics of stabilometry, balance therapy, gait stereotype assessment, functional tests, gravitational pressure assessment
	Knows how to prescribe, implement and monitor the effectiveness of the patient's medical rehabilitation, including the implementation of individual rehabilitation and habilitation programs for the disabled
	Possesses the skills to implement and monitor the effectiveness of the patient's medical rehabilitation, including the implementation of individual rehabilitation and habilitation programs for the disabled
GPC-8.2 Able to assess the patient's ability to work	Knows the procedure and methods for assessing the patient's ability to work
	Able to draw up a comprehensive rehabilitation program taking into account the goals, objectives, rehabilitation potential
	Owens the assessment of patients on a scale of rehabilitation routing. Drawing up a plan for laboratory and instrumental methods of diagnosis, evaluation of the effectiveness of physiotherapy, exercise therapy.

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the	PC-4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care

	<p>presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	
	<p>PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-8 Ready to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-8.1 Knows modern methods of non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for providing</p> <p>PC-8.2 Able to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision</p>

		of medical care, taking into account the standards of medical care
PC-9 Capable of evaluating the efficacy and safety of the use of drugs, medical devices, clinical nutrition and other methods of treatment	PC-9.1	Knows the mechanism of action of non-drug treatment; medical indications and contraindications to its appointment; side effects, complications caused by its use
	PC-9.2	Able to evaluate the effectiveness and safety of the use of medicines, medical devices and clinical nutrition
PC-12 Ready to determine the need for the use of natural healing factors, drug, non-drug therapy and other methods in patients in need of medical rehabilitation and sanatorium treatment in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account health care standards	PC-12.1	Knows the measures for the medical rehabilitation of the patient, medical indications and contraindications for their implementation, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care
	PC-12.2	Knows the medical indications and contraindications for the appointment of sanatorium-resort treatment as a stage of the patient's medical rehabilitation
	PC-12.3	Knows the features of medical rehabilitation of elderly and senile patients
	PC-12.4	Knows how to determine medical indications for medical rehabilitation measures, including the implementation of an individual rehabilitation or habilitation program for people with disabilities, in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment

		protocols) on the provision of medical care, taking into account the standards of medical care
		<p>PC-12.5</p> <p>Knows how to prescribe sanatorium-resort treatment to a patient in need of medical rehabilitation, including when implementing an individual rehabilitation or habilitation program for disabled people, in accordance with current clinical recommendations (treatment protocols) on the provision of medical care, procedures for the provision of medical care and taking into account the standards of medical help</p>

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
<p>PC-4.6</p> <p>Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>	Knows the main clinical recommendations for the profile of medical rehabilitation_
	Knows how to correctly select, depending on the patient's condition, complex rehabilitation schemes, taking into account the functional state
	Has the skills to apply clinical recommendations in the field of medical rehabilitation
<p>PC-6.1</p> <p>Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	Knows modern medicines, medical devices and nutritional therapy used for various diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines on the provision of medical care, taking into account the standards of medical care
	Able to draw up a plan for the use of modern drugs, medical devices and medical nutrition for various nosologies in accordance with the current procedures for the provision of medical care, clinical recommendations on the provision of medical care, taking into account the standards of medical care



	Owns the methods of using medicines, medical devices and medical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical recommendations on the provision of medical care, taking into account the standards of medical care
<p>PC-6.3</p> <p>Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	Knows the features of rehabilitation treatment of various nosologies and conditions of the patient, taking into account the diagnosis, the age of the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care
	Able to individually, taking into account the biopsychosocial model, select complex rehabilitation treatment and nutrition
	Possesses the skills of compiling a medical rehabilitation complex, taking into account the functional state of the patient
<p>PC-8.1</p> <p>Knows modern methods of non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for providing</p>	Knows the methods of drug and non-drug therapy of major diseases
	Able to draw up a plan for non-drug treatment of diseases and conditions in a patient in accordance with the current procedures for the provision of medical care
	Possesses the skills of non-drug treatment for various conditions and nosologies in accordance with the current procedures for the provision of medical care.
<p>PC-8.2</p> <p>Able to prescribe non-drug treatment, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	Knows the basics of physiotherapy, exercise therapy, medical massage, speech therapy, medical psychology
	Able to combine methods of rehabilitation therapy and drug treatment, taking into account the diagnosis according to the international classification of functioning
	Owns the main methods of non-drug therapy according to the level of evidence and combines them with drug therapy

<p>PC-9.1</p> <p>Knows the mechanism of action of non-drug treatment; medical indications and contraindications to its appointment; side effects, complications caused by its use</p>	<p>Knows the pathogenetic bases of methods of physiotherapy, exercise therapy, medical massage, reflexology, manual therapy, indications and contraindications for its appointment; side effects, complications caused by its use</p>
<p>PC-9.2</p> <p>Able to evaluate the effectiveness and safety of the use of medicines, medical devices and clinical nutrition</p>	<p>Knows how to prescribe non-drug rehabilitation treatment in a pathogenetically justified manner</p>
<p>PC-12.1</p> <p>Knows the measures for the medical rehabilitation of the patient, medical indications and contraindications for their implementation, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Possesses the skills to pathogenetically justify prescribing non-drug treatment</p>
<p>PC-12.2</p> <p>Knows the medical indications and contraindications for the appointment of</p>	<p>Knows the principles and rules for evaluating the effectiveness and safety of the use of medicines, medical devices and clinical nutrition</p>
<p>PC-12.1</p> <p>Knows the measures for the medical rehabilitation of the patient, medical indications and contraindications for their implementation, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows how to prescribe rehabilitation technologies, taking into account indications and contraindications, the presence of a comorbid condition</p>
<p>PC-12.1</p> <p>Knows the measures for the medical rehabilitation of the patient, medical indications and contraindications for their implementation, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Has the skills to assess the effectiveness and safety of the appointed technologies</p>
<p>PC-12.2</p> <p>Knows the medical indications and contraindications for the appointment of</p>	<p>Knows the medical indications and contraindications for their conduct, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical guidelines</p>
<p>PC-12.1</p> <p>Knows the measures for the medical rehabilitation of the patient, medical indications and contraindications for their implementation, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Able to plan and implement measures for the medical rehabilitation of the patient, taking into account the diagnosis in accordance with the current procedures for the provision of medical care and clinical recommendations</p>
<p>PC-12.1</p> <p>Knows the measures for the medical rehabilitation of the patient, medical indications and contraindications for their implementation, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Has the skills to develop and control the implementation of measures for the medical rehabilitation of the patient, taking into account the diagnosis in accordance with the current procedures for the provision of medical care and clinical recommendations</p>
<p>PC-12.2</p> <p>Knows the medical indications and contraindications for the appointment of</p>	<p>Knows medical indications and contraindications for the appointment of spa treatment. Knows the basics of spa treatment, types of resorts, methods of spa treatment</p>

sanatorium-resort treatment as a stage of the patient's medical rehabilitation	Knows how to determine medical indications and contraindications for the appointment of sanatorium and resort treatment as a stage in the patient's medical rehabilitation
	Has the skills to prescribe sanatorium-resort treatment as a stage of the patient's medical rehabilitation
PC-12.3 Knows the features of medical rehabilitation of elderly and senile patients	Knows the features of the physiology and pathology of elderly and senile patients
	Knows how to choose the means of medical rehabilitation for elderly and senile patients, taking into account the peculiarities
	Possesses the skills to control medical rehabilitation measures in elderly and senile patients
PC-12.4 Knows how to determine medical indications for medical rehabilitation measures, including the implementation of an individual rehabilitation or habilitation program for people with disabilities, in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	Knows the basics of medical and social expertise, determining the degree of disability.
	Knows how to make a conclusion for medical and social expertise, is oriented in the technical means of rehabilitation, a barrier-free environment.
	Possesses the skills of determining indications for referral to a medical and social examination, drawing up an individual program for the rehabilitation and habilitation of a disabled person, monitoring the effectiveness of the IPR.
PC-12.5 Knows how to prescribe sanatorium-resort treatment to a patient in need of medical rehabilitation, including when implementing an individual rehabilitation or habilitation program for disabled people, in accordance with current clinical recommendations (treatment protocols) on the provision of medical care, procedures for the provision of medical care and taking into account the standards of medical help	Knows the indications and contraindications for sanatorium treatment, taking into account the characteristics of the course of the underlying and concomitant diseases
	Knows how to prescribe sanatorium-resort treatment to a patient in need of medical rehabilitation, including when implementing an individual rehabilitation or habilitation program for disabled people, in accordance with current clinical recommendations (treatment protocols) on the provision of medical care, procedures for the provision of medical care and taking into account the standards of medical help
	Has the skills to draw up a patient's health resort card

## ANNOTATION

The discipline "Pediatrics" is a mandatory discipline of the mandatory part of the professional cycle.

The total labor intensity of mastering the discipline is 9 credits, 324 hours. The curriculum provides for lectures (54 hours), practical classes (162 hours), independent work of the student (108 hours). The discipline is implemented on 4.5 courses in 8.9, A semesters.

### **Goals and objectives of the discipline.**

**aim**The program is the formation of students' theoretical and practical knowledge, skills and abilities of diagnosis, treatment tactics, clinical examination, prevention of the most common diseases in young and older children and the provision of emergency care depending on the nosology of the disease.

### **Tasks:**

- To form students' basic communication skills with healthy and sick children and their parents;
- To teach students the ability to obtain objective data when examining a child, to interpret the data obtained, taking into account the anatomical and physiological characteristics and age norms;
- To form students' practical skills in diagnosing the most common diseases of early and older age, acute childhood infections, as well as conditions that threaten the life of a child;
- Teach the principles of clinical thinking.

The student must know:

- - anatomical and physiological features of the organs and systems of a healthy child, normal growth and development rates (physical and psychomotor), features of immunity, metabolism, homeostasis of the child's body;
- principles of rational feeding of a healthy and sick child of the first year of life, nutritional features of children older than a year

- features of the etiology, pathogenesis, clinical picture and course of diseases of childhood, including factors contributing to the chronicity of the disease and the development of complications;

- principles of emergency and first aid in emergency conditions at the prehospital stage.

- principles of organization and operation of pediatric healthcare facilities, prevention of nosocomial infections, creation of favorable conditions for the stay of patients and working conditions for medical personnel;

- principles of organization and focus of work on the formation of a healthy lifestyle for the child and his family;

- measures for labor protection and safety, prevention of childhood diseases, monitoring compliance with and ensuring environmental safety;

The student must be able to:

- determine the status of the child: collect an anamnesis, conduct a survey of the child and / or his parents, conduct a physical examination of the child; assess the child's condition to make a decision on the need to provide him with medical care;

- set priorities for solving the child's health problems: a condition with a pain syndrome, a condition with a chronic disease, a condition with an infectious disease, disability;

- assess the factors affecting the state of physical and psychological health of the child: individual, family, social risk factors (violence, illness and death of relatives, etc.); make a preliminary diagnosis - to systematize information about the child in order to determine the pathology and the causes that cause it;

- outline the scope of studies to clarify the diagnosis and obtain a reliable result;

- choose an individual type of care for the treatment of a child in accordance with the situation: primary care, ambulance, hospitalization;

- formulate a clinical diagnosis;

- develop a plan of therapeutic action, taking into account the course of the disease and its treatment;
- formulate indications for the chosen method of treatment, taking into account etiotropic and pathogenetic agents, justify pharmacotherapy in a particular child with major pathological syndromes and emergency conditions, determine the route of administration, regimen and dose of drugs, evaluate the effectiveness and safety of the treatment;
- identify conditions requiring hospitalization and promptly refer patients to appropriate specialists;
- help children with emergencies

Own:

- methods of general clinical examination of the child, depending on age;
- interpretation of the results of laboratory, instrumental diagnostic methods, taking into account the age characteristics of children;
- diagnostic algorithm.
- the main medical diagnostic and therapeutic measures for the provision of first aid in emergency and life-threatening conditions in children
- correct medical records.

Some questions of the studied material can be submitted for independent study, followed by listening to review lectures and consolidating knowledge in practical exercises.

In accordance with the requirements of the Federal State Educational Standard of Higher Education in the specialty 31.05.01.65 "General Medicine" to the content and level of training of the graduate, after studying the discipline, the student must have the following competencies:

- readiness for the medical use of drugs and other substances, and their combinations in solving professional problems (OPK-8);
- readiness to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, pathoanatomical and other studies in

order to recognize the condition or establish the presence or absence of the disease (PC-5);

- the ability to determine the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems (ICD) (PC-6);

- the ability to determine the tactics of managing patients with various nosological forms (PC-8);

As a result of studying this discipline, students form the following general professional competencies:

Name of the category (group) of universal competencies	Code and name of general professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Etiology and pathogenesis	OPK-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
		GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems
Treatment of diseases and conditions	OPK-7 Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods

		<p>GPC-7.2</p> <p>Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data</p>
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Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
<p>GPC-5.3</p> <p>Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems</p>	<p>Knows the algorithm of physical examination of children and adolescents, the principles of clinical laboratory and instrumental diagnostics</p>
	<p>Able to conduct a physical examination of children and adolescents, to diagnose the clinical manifestations of diseases;</p> <p>draw up a plan for the necessary examination and treatment of children and adolescents and; interpret the results of laboratory and instrumental research methods</p>
	<p>Owns the methods of clinical and instrumental examination of children and adolescents</p>
<p>GPC-5.4</p> <p>Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems</p>	<p>Knows general and special research methods for children and adolescents; the main diagnostic techniques used in children and adolescents.</p>
	<p>Able to analyze information about the development of diseases in children and adolescents, interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors.</p>
	<p>Possesses well-formed theoretical and practical skills that allow interpreting the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors.</p>
<p>GPC-7.1</p> <p>Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods</p>	<p><b>Knows</b> features of the pharmacodynamics of drugs, the mechanism of therapeutic agents and methods in physiological and pathological conditions of a person.</p>
	<p><b>smartert</b> draw up a treatment plan based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other</p>



	therapeutic agents and methods.
	<b>Capable on your own</b> prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.
GPC-7.2 Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data	Knows general and special methods of research and treatment of children and adolescents
	Able to apply objective methods of examination of children and adolescents. Determine indications for treatment of children and adolescents, side effects when prescribing drugs
	Possesses knowledge on the basis of clinical, laboratory and instrumental data to evaluate and monitor the therapeutic effect and side effects when prescribing drugs, as well as other therapeutic agents and methods

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors
		PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care
		PC-4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results
		PC-4.6 Knows the procedures for providing medical care, clinical

		recommendations (treatment protocols) on the provision of medical care, standards of medical care
PC-5 Capable of making a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)	PC-5.1	Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs
	PC-5.2	Able to carry out early diagnosis of diseases of internal organs
	PC-5.3	Able to carry out differential diagnosis of diseases of internal organs from other diseases
	PC-5.4	Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis
PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-6.1	Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care
	PC-6.3	Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care
PC-7		PC-7.2

	<p>Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-10 Ready to organize personalized treatment of the patient, including pregnant women, elderly and senile patients, evaluation of the effectiveness and safety of treatment</p>	<p>PC-10.1 Knows the physiological characteristics of patients depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy</p> <p>PC-10.2 Able to prescribe personalized treatment of patients depending on the constitutional type, age, comorbidities and changes associated with pregnancy, taking into account the standards of medical care</p>
	<p>PC-14 Ready to organize and control the immunoprophylaxis of infectious diseases in the adult population in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-14.1 Knows preventive measures taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>PC-14.2 Knows the principles of the use of specific and non-specific prevention of infectious diseases, the national calendar of preventive vaccinations and the calendar of preventive vaccinations according to epidemic indications</p>

		<p>PC-14.3</p> <p>Able to draw up a plan for the immunoprophylaxis of infectious diseases in the adult population in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
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Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
<p>PC-4.3</p> <p>Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors</p>	<p>Knows the tactics of managing diseases of children and adolescents, etiology, pathogenesis, clinical picture, prevention, principles of examination and treatment</p>
	<p>Able to determine the need and scope of laboratory and instrumental examination of children and adolescents, determine the indications for hospitalization</p>
	<p>Possesses the formed skills to determine the need and scope of laboratory and instrumental examination of children and adolescents, the need to refer the patient for consultations to specialist doctors.</p>
<p>PC-4.4</p> <p>Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care</p>	<p><b>Knows</b> the volume, content and sequence of diagnostic measures, taking into account the standards of medical care, in order to recognize the condition or establish the fact of the presence or absence of a disease</p>
	<p><b>Can</b> determine the sequence of the volume, content and sequence of diagnostic measures, taking into account the standards of medical care in order to recognize the condition or establish the fact of the presence or absence of a disease</p>
	<p>Possesses the skill of independently determining the order, volume, content and sequence of diagnostic measures, taking into account the standards of medical care, in order to recognize the condition or establish the fact of the presence or absence of a disease</p>

<p>PC-4.5</p> <p>Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results</p>	<p><b>Knows</b> methods of laboratory and instrumental research to assess the state of health, medical indications for research, must be performed taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease</p>
	<p><b>Can</b> draw up a plan for laboratory and instrumental studies to assess the state of health, medical indications for research, must be carried out taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease</p>
	<p><b>Owns a skill</b> self-appointment of laboratory and instrumental studies to assess the state of health, medical indications for research, must be carried out taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease</p>
<p>PC-4.6</p> <p>Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>	<p>Knows the main official documents regulating the tactics of conducting and the procedure for providing medical care to children and adolescents, etiology, pathogenesis, clinical picture, prevention, treatment principles</p>
	<p>Based on the clinical manifestations of infectious diseases, is able to draw up a plan for the necessary examination and treatment of children and adolescents in accordance with clinical recommendations and standards of medical care</p>
	<p>Has knowledge of the procedure for providing medical care and conducting the necessary treatment for children and adolescents</p>
<p>PC-5.1</p> <p>Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs</p>	<p>Knows the etiology, pathogenesis, clinical picture, prevention in children and adolescents</p>
	<p>Able to obtain information about the development and course of the disease; identify possible etiological factors, apply objective methods of examination of children and adolescents, identify common and specific signs of diseases; assess the severity of the patient's condition; determine the need and sequence of application of special research methods (laboratory, radiological, endoscopic, functional), as well as consultations of narrow specialists, interpret the data obtained</p>

	Possesses knowledge for the purpose of conducting a differential diagnosis, identifying the characteristics of the course of diseases in children and adolescents, and establishing a final clinical diagnosis, conducting the necessary treatment.
PC-5.2 Ability to diagnose diseases early	<b>Knows</b> principles of early diagnosis of diseases of internal organs
	<b>Can</b> draw up an action plan for the early diagnosis of diseases of internal organs
	<b>owns</b> the skill of early diagnosis of diseases of internal organs
PC-5.3 Able to carry out differential diagnosis of diseases of internal organs from other diseases	<b>Knows</b> principles of differential diagnosis of diseases of internal organs
	<b>Can</b> make a list of diseases necessary for early diagnosis of diseases of internal organs
	<b>owns</b> the skill of differential diagnosis of diseases of internal organs
PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis	Knows the necessary information about the development and course of the disease, according to the ICD-X revision
	Able to identify possible etiological factors, apply objective methods of examination of the patient, identify common and specific signs of diseases in children and adolescents, necessary for diagnosis
	Possesses well-formed theoretical and practical skills, allowing to establish a diagnosis according to the ICD
PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	Knows modern medicines and methods of their use in children and adolescents in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)
	Knows how to use medicines, medical devices and nutritional therapy in children and adolescents in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)
	Possesses the formed theoretical skills in the use of medicines, medical devices and clinical nutrition in children and adolescents in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care

<p>PC-6.3</p> <p>Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows general and special methods of diagnosis and treatment of children and adolescents</p>
	<p>Able to apply objective methods of examination of children and adolescents, to identify common and specific signs of diseases; Determine the indications for the treatment of children and adolescents in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>
	<p>Possesses the formed theoretical knowledge of drawing up a treatment plan for children and adolescents, taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-7.1</p> <p>Knows the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.</p>	<p>Knows the basics of pharmacodynamics of drugs in children and adolescents</p>
	<p>Knows how to use methodological recommendations when prescribing drugs in children and adolescents</p>
	<p>Able to prescribe medications to children and adolescents</p>
<p>PC-7.2</p> <p>Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows modern medicines, medical devices used to treat children and adolescents in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>
	<p>Knows how to determine indications for prescribing medicines, medical devices and medical nutrition, taking into account the standards of medical care</p>
	<p>Possesses theoretical knowledge on the prescription of medicines, medical devices and nutritional therapy, taking into account the diagnosis, the age of children and adolescents in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care</p>

<p>PC-10.1</p> <p>Knows the physiological characteristics of patients depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy</p>	<p>Knows the physiological characteristics of children and adolescents, depending on the constitutional type, age, concomitant diseases and changes associated with physiological development</p> <p><b>Can</b> identify changes in the body of children and adolescents depending on the constitutional type, age, concomitant diseases and changes associated with physiological development</p> <p><b>Capable</b> predict the features of the course of diseases in children and adolescents depending on the constitutional type, age, concomitant diseases</p>
<p>PC-10.2</p> <p>Able to prescribe personalized treatment of patients depending on the constitutional type, age, comorbidities and changes associated with pregnancy, taking into account the standards of medical care</p>	<p><b>Knows</b> features of the impact of various methods of treatment on the body of children and adolescents</p> <p><b>Can</b> on the basis of specialist advice, prescribe personalized treatment of patients depending on the constitutional type, age, concomitant diseases in children and adolescents</p> <p><b>Owens a skill</b> attracting specialists for consultation in order to prescribe personalized treatment for patients depending on the constitutional type, age, concomitant diseases in children and adolescents</p>
<p>PC-14.1</p> <p>Knows preventive measures taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>Knows</b> methods and means of prevention, taking into account the diagnosis in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account standards</p> <p><b>Can</b> take into account the diagnosis of the patient, use the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care for planning and prescribing preventive measures</p> <p><b>Capable on your own</b> taking into account the patient's diagnosis, use the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care for planning and prescribing preventive measures.</p>
<p>PC-14.2</p>	<p><b>Knows</b> principles of application of specific and non-specific prevention of infectious diseases</p>



<p>Knows the principles of the use of specific and non-specific prevention of infectious diseases, the national calendar of preventive vaccinations and the calendar of preventive vaccinations according to epidemic indications</p>	<p><b>Can</b> prescribe methods of specific and non-specific prevention of infectious diseases, including taking into account the national calendar of preventive vaccinations and the calendar of preventive vaccinations according to epidemic indications</p>
<p>PC-14.3 Able to draw up a plan for the immunoprophylaxis of infectious diseases in the adult population in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>Owns a skill</b> self-appointment of methods for specific and non-specific prevention of infectious diseases, including taking into account the national calendar of preventive vaccinations and the calendar of preventive vaccinations according to epidemic indications</p> <p><b>Knows</b> principles for drawing up a plan for the immunoprophylaxis of infectious diseases in children and adolescents in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p><b>Can</b> use under control the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care to draw up a plan for immunoprophylaxis of infectious diseases in children and adolescents</p> <p><b>Capable on your own</b> draw up a plan for the immunoprophylaxis of infectious diseases in children and adolescents in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

## ANNOTATION

The discipline "Obstetrics and Gynecology" is intended for students enrolled in the educational program 30.05.01 "General Medicine".

The discipline is implemented at the 4th and 5th courses, it is a compulsory discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students were used.

The total labor intensity of mastering the discipline is 13 credits, 468 hours. The curriculum provides for 72 hours of lectures, 216 hours of practical training and independent work of the student (180 hours).

The course program is based on the basic knowledge gained by students:  
ability for abstract thinking, analysis, synthesis (OK-1);

willingness to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies and taking into account the basic requirements of information security (OPK-1);

### **Goals and objectives of the discipline.**

#### **Course objective:**

Preparation of a qualified specialist for the initial examination of a pregnant and gynecological patient, establishing a preliminary diagnosis, providing emergency medical care in emergency conditions, treating gynecological diseases and complications of pregnancy, who has certain knowledge in the field of obstetrics and gynecology, taking into account further training and professional activities in the specialty "General Medicine" ".

#### **Tasks:**

1. mastering by students the basic medical research methods (questioning, examination, palpation, percussion, auscultation), which are necessary in the daily practice of an obstetrician-gynecologist;

2. identification with the help of these research methods of the main clinical manifestations - symptoms and syndromes - at different stages of the development of the disease;
3. development by students of knowledge of clinical and physiological features of the reproductive system of women;
4. formation of students' professional medical ethics and deontology, the foundations of medical clinical thinking;
5. familiarization of students with the principles of organizing the work of an obstetric and gynecological hospital, the prevention of nosocomial infections in medical institutions (MPIs);
6. to give students an idea of the prevalence and significance of gynecological and obstetric diseases and the relationship of these diseases with the pathology of other organs and systems, including the patterns of occurrence, course and treatment of diseases;
7. the formation of students' skills in diagnosing, treating gynecological and obstetric diseases, diagnosing and differential diagnosis of life-threatening conditions and providing first emergency medical care for these conditions;
8. the formation of students' skills in studying scientific literature and official statistical reviews, as well as reviews on modern scientific problems in the field of obstetrics and gynecology;
9. the formation of students' communication skills and interaction with the team, partners, patients.

As a result of studying this discipline, students form the following general professional competencies:

Name of the category (group) of universal competencies	Code and name of general professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Etiology and pathogenesis	OPK-5 Able to assess morphofunctional, physiological conditions	GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems

	and pathological processes in the human body to solve professional problems	GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors to solve professional problems
Treatment of diseases and conditions	OPK-7 Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods
		GPC-7.2 Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems	Knows the algorithm for the physical examination of pregnant women and patients with gynecological diseases, the principles of clinical, laboratory and instrumental diagnostics
	Able to conduct a physical examination of pregnant women and patients with gynecological diseases, diagnose clinical manifestations of pregnancy and gynecological diseases; draw up a plan for the necessary examination and treatment of pregnant women and patients with gynecological diseases; interpret the results of laboratory and instrumental research methods
	Owns the methods of clinical and instrumental examination of pregnant women and patients with gynecological diseases
GPC-5.4 Able to analyze and interpret data obtained during physical, laboratory, instrumental examination of the patient, during consultations of the	Knows general and special methods of examination of pregnant women and patients with gynecological diseases; the main diagnostic techniques used in pregnant women and patients with gynecological diseases.

patient by specialist doctors to solve professional problems	Able to analyze information about the development and course of pregnancy and gynecological diseases; interpret the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by medical specialists.
	Possesses well-formed theoretical and practical skills that allow interpreting the data obtained during the physical, laboratory, instrumental examination of the patient, during consultations of the patient by specialist doctors.
GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods	<b>Knows</b> features of the pharmacodynamics of drugs, the mechanism of therapeutic agents and methods during pregnancy and gynecological diseases.
	<b>smartert</b> draw up a treatment plan based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.
	<b>Capable on your own</b> prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.
GPC-7.2 Able to evaluate and control the therapeutic effect and side effects in prescribing drugs, as well as other therapeutic agents and methods, based on clinical, laboratory and instrumental data	Knows general and special methods of examination and treatment of pregnant women and patients with gynecological diseases
	Able to apply objective methods of examination of pregnant women and patients with gynecological diseases Determine the indications for the treatment of pregnant women and patients with gynecological diseases, side effects when prescribing drugs
	Possesses knowledge on the basis of clinical, laboratory and instrumental data to evaluate and monitor the therapeutic effect and side effects when prescribing drugs, as well as other therapeutic agents and methods

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors
		PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care
		PC-4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results
		PC-4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care
		PC-5.1 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs
		PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis
	PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for	PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the

	<p>the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
		<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-7 Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-7.1 Knows the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.</p>
		<p>PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-10 Ready to organize personalized treatment of the patient, including pregnant women, elderly and senile patients, evaluation of the effectiveness and safety of treatment</p>	<p>PC-10.1 Knows the physiological characteristics of patients depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy</p>
		<p>PC-10.2 Able to prescribe personalized treatment of patients depending on the constitutional type, age, comorbidities and changes associated with</p>

		pregnancy, taking into account the standards of medical care
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Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors	Knows the tactics of managing patients with infectious diseases, etiology, pathogenesis, clinical picture, prevention, principles of examination and treatment
	Able to determine the need and scope of laboratory and instrumental examination of the patient, determine the indications for hospitalization of pregnant women and patients with gynecological diseases
	Possesses the formed skills to determine the need and scope of laboratory and instrumental examination of pregnant women and patients with gynecological diseases, the need to refer the patient for consultations to specialist doctors.
PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care	<b>Knows</b> the volume, content and sequence of diagnostic measures, taking into account the standards of medical care, in order to recognize the condition or establish the fact of the presence or absence of a disease
	<b>Can</b> determine the sequence of volume, content and sequence of diagnostic measures, taking into account the standards of medical care in order to recognize the condition or establish the fact of the presence or absence of pregnancy, or a gynecological disease
	Possesses the skill of independently determining the order, volume, content and sequence of diagnostic measures, taking into account the standards of medical care, in order to recognize the condition or establish the presence or absence of pregnancy, or a gynecological disease
PC-4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting	<b>Knows</b> methods of laboratory and instrumental research to assess the state of health, medical indications for research, must be performed taking into account the standards of medical care in order to recognize the condition or establish the presence



studies, the rules for interpreting their results	or absence of pregnancy, or a gynecological disease
	<b>Can</b> draw up a plan for laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, must be carried out taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of pregnancy, or a gynecological disease
	<b>Owns a skill</b> self-appointment of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, must be performed taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of pregnancy, or a gynecological disease
PC-4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care	Knows the main official documents regulating the tactics of patient management and the procedure for providing medical care for pregnancy and gynecological diseases, etiology, pathogenesis, clinical picture, prevention, treatment principles
	Able to draw up a plan for the necessary examination and treatment of pregnant women and patients with gynecological diseases based on the clinical manifestations of infectious diseases in accordance with clinical recommendations and standards of medical care
	Has knowledge of the procedure for providing medical care and conducting the necessary treatment for pregnant women and patients with gynecological diseases
PC-5.1 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs	Knows the etiology, pathogenesis, clinical picture, prevention of infectious diseases in pregnant women and patients with gynecological diseases
	Able to obtain information about the development and course of the disease; identify possible etiological factors, apply objective methods of examination of the patient, identify general and specific signs of pregnancy and gynecological diseases; assess the severity of the patient's condition; determine the need and sequence of application of special research methods (laboratory, radiological, endoscopic,

	functional), as well as consultations of narrow specialists, interpret the data obtained
	Has the knowledge to conduct a differential diagnosis, identify the characteristics of the course of pregnancy and gynecological diseases and establish the final clinical diagnosis, conduct the necessary treatment during pregnancy and gynecological diseases.
PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis	Knows the necessary information about the development and course of the disease, according to the ICD-X revision
	Able to identify possible etiological factors, apply objective methods of examination of the patient, identify general and specific signs of pregnancy and gynecological diseases necessary for diagnosis
	Possesses well-formed theoretical and practical skills, allowing to establish a diagnosis according to the ICD
PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	Knows modern medicines and methods of their use during pregnancy and gynecological diseases in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)
	Knows how to apply medicines, medical devices and medical nutrition during pregnancy and gynecological diseases in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)
	Possesses the formed theoretical skills in the use of medicines, medical devices and clinical nutrition during pregnancy and gynecological diseases in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care
PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical	Knows general and special methods of diagnosis and treatment pregnant women and patients with gynecological diseases
	Ability to apply objective examination methods pregnant women and patients with gynecological diseases identify common and specific features pregnancy and gynecological

recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	diseases; Determine indications for treatmentpregnancy and gynecological diseasesin accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)
	Possesses the formed theoretical knowledge of drawing up a treatment planpregnant women and patients with gynecological diseasestaking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care
PC-7.1 Knows the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.	Knows the basics of pharmacodynamics of drugs during pregnancy and gynecological diseases
	Knows how to use methodological recommendations when prescribing drugs during pregnancy and gynecological diseases
	Able to prescribe drugs during pregnancy and gynecological diseases
PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	Knows modern medicines, medical devices used for treatmentpregnant women and patients with gynecological diseasesin accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)
	Knows how to determine indications for prescribing medicines, medical devices and medical nutrition, taking into account the standards of medical care
	Possesses theoretical knowledge about prescribing medicines, medical devices and therapeutic nutrition, taking into account the diagnosis, agepregnant women and patients with gynecological diseasesin accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol) on the provision of medical care, taking into account the standards of medical care
PC-10.1 Knows the physiological characteristics of patients depending on the constitutional	Knows the physiological characteristics of patients depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy

type, age, concomitant diseases and changes associated with pregnancy	<b>Can</b> identify changes in the body of patients depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy
	<b>Capable</b> to predict the features of the course of pregnancy depending on the constitutional type, age, concomitant diseases of the patient.
PC-10.2 Able to prescribe personalized treatment of patients depending on the constitutional type, age, comorbidities and changes associated with pregnancy, taking into account the standards of medical care	<b>Knows</b> features of the impact of various methods of treatment on the body of a pregnant woman and the fetus.
	<b>Can</b> on the basis of specialist advice, prescribe personalized treatment of patients depending on the constitutional type, age, comorbidities and changes associated with pregnancy, taking into account the standards of medical care
	<b>Owns a skill</b> involvement of specialists for consultation with the aim of prescribing personalized treatment of patients depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy, taking into account the standards of medical care.

For the formation of the above competencies within the discipline "Obstetrics and Gynecology" the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training programs.
2. Conducting interactive role-playing games in order to develop the skills of interviewing pregnant and gynecological patients and the skills of counseling patients.
3. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts, a lesson-conference.
4. Conducting a competition in groups for the best knowledge of the discipline.

The proportion of practical classes conducted in interactive forms is 10% of classroom time; independent extracurricular work - 33% of the time.

## ANNOTATION

The discipline "Psychiatry" is intended for students enrolled in the educational program 31.05.01 "Medicine", implemented in the 5th year in the A semester. The total labor intensity of the discipline is 72 hours, 2 credit units

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" (specialist level of training), the curriculum for preparing students were used.

The course program is based on the basic knowledge gained by students: the ability for abstract thinking, analysis, synthesis (OK-1);

willingness to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies and taking into account the basic requirements of information security (OPK-1);

### **Goals and objectives of the discipline.**

**Target-** mastering the skills of primary diagnosis of mental disorders and behavioral disorders for their timely detection, referring the patient to a specialist, providing emergency psychiatric and drug treatment, as well as pharmacological and psychotherapeutic correction of mild mental disorders in the context of providing medical and preventive care to the population and general medical practice.

*tasks* disciplines are:

- acquisition by students of knowledge of etiology, epidemiology, pathogenesis and risk factors of psychiatric diseases;

- teaching students the most important methods of objective examination, allowing timely diagnosis of psychiatric pathology;

-teaching students to recognize the clinical signs of a psychiatric disorder when examining a patient, in determining the severity of the course of the pathological process;

-teaching students the ability to identify the leading syndromes of psychiatric disorders;

- teaching students to choose the best methods of laboratory and instrumental examination in case of major psychiatric diseases and compiling an algorithm for differential diagnosis;
- training in carrying out a full range of therapeutic, rehabilitation and preventive measures among patients with various nosological forms of psychiatric diseases;
- teaching students to provide first aid to patients in case of emergency;
- teaching students to choose the optimal schemes of etiopathogenetic treatment of the most common mental disorders;
- familiarization of students with the principles of organization and work of medical institutions providing assistance to patients with psychiatric pathology;
- formation of skills in studying scientific literature and official statistical reviews;
- formation of communication skills with a psychiatric patient and his representatives, taking into account ethics and deontology, depending on the identified pathology and characterological characteristics of patients;
- formation of the student's communication skills with the team.

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Etiology and pathogenesis	OPK-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.1 Knows the patterns of functioning of a healthy human body and the mechanisms for ensuring health from the standpoint of the theory of functional systems; features of the regulation of the functional systems of the human body in pathological processes

Treatment of diseases and conditions	OPK-7 Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods
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Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
GPC-5.1 Knows the patterns of functioning of a healthy human body and the mechanisms for ensuring health from the standpoint of the theory of functional systems; features of the regulation of the functional systems of the human body in pathological processes	Knows the algorithm of physical examination of patients with mental disorders, the principles of clinical, laboratory and instrumental diagnostics
	Able to conduct a physical examination of patients with mental disorders, to diagnose the clinical manifestations of diseases; draw up a plan for the necessary examination and treatment of patients with mental disorders; interpret the results of laboratory and instrumental research methods
	Owens methods of clinical and instrumental examination of patients with mental disorders
GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods	<b>Knows</b> features of the pharmacodynamics of drugs, the mechanism of therapeutic agents and methods in physiological and pathological conditions of a person.
	<b>smartert</b> draw up a treatment plan based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.
	<b>Capable on your own</b> prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	<p>PC-4</p> <p>Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-4.4</p> <p>Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care</p>
	<p>PC-5</p> <p>Capable of making a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)</p>	<p>PC-5.4</p> <p>Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis</p>



	<p><b>PC-6</b> Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>PC-6.3</b> Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p><b>PC-7</b> Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>PC-7.2</b> Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
<p><b>PC-4.4</b> Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care</p>	<p><b>Knows</b>the volume, content and sequence of diagnostic measures, taking into account the standards of medical care in order to recognize the condition or establish the fact of the presence or absence of mental disorders</p>
	<p><b>Can</b>determine the sequence of volume, content and sequence of diagnostic measures, taking into account the standards of medical care in order to recognize the condition or establish the fact of the presence or absence of mental disorders</p>
	<p>Possesses the skill of independently determining the order, volume, content and sequence of diagnostic measures, taking into account the standards of medical care, in order to recognize the</p>

	condition or establish the fact of the presence or absence of mental disorders
<p>PC-5.4</p> <p>Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis</p>	Knows the necessary information about the development and course of the disease, according to the ICD-X revision
	Able to identify possible etiological factors, apply objective methods of examination of the patient, identify common and specific signs of diseases in patients with mental disorders, necessary for diagnosis
	Possesses well-formed theoretical and practical skills, allowing to establish a diagnosis according to the ICD
<p>PC-6.3</p> <p>Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	Knows general and special methods of diagnosis and treatment patients with mental disorders
	Ability to apply objective examination methods patients with mental disorders identify common and specific features diseases; determine indications for treatment patients with mental disorders in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)
	Possesses the formed theoretical knowledge of drawing up a treatment plan patients with mental disorder taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care
<p>PC-7.2</p> <p>Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	Knows modern medicines, medical devices used for treatment patients with mental disorders in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)
	Knows how to determine indications for prescribing medicines, medical devices and medical nutrition, taking into account the standards of medical care
	Possesses theoretical knowledge about prescribing medicines, medical devices and therapeutic nutrition, taking into account the diagnosis, the age of the patient patients with mental disorders in accordance with the current procedures for the

	provision of medical care, clinical guidelines (treatment protocol) on the provision of medical care, taking into account the standards of medical care
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## ANNOTATION

Discipline «Stomatology» is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the basic part of the curriculum.

The discipline is implemented on the 6th year, it is a compulsory discipline.

When developing the working program of the discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for the training of a specialist in the profile 31.05.01 "General Medicine" were used.

The total labor intensity of the discipline is 108 hours, 3 credit units (54 hours of classroom lessons (18 lectures, 36 practical), 54 hours in the SIW)

### **Goals and objectives of the discipline.**

**Course objective:** consists in mastering the knowledge of etiology, pathogenesis, clinic of diseases of the oral cavity, maxillofacial region, as well as the principles of examination of patients with pathology of the oral cavity, maxillofacial region, treatment and prevention of dental diseases.

### **Tasks:**

prevention of the occurrence of diseases among the population by carrying out preventive and anti-epidemic measures;

- participation in preventive medical examinations, clinical examination, dispensary observation;

- carrying out the collection and medical and statistical analysis of information on the indicators of dental morbidity of various age and sex groups and its impact on their health status;

- diagnosis of dental diseases and pathological conditions of patients;

- diagnosis of emergency conditions of patients;

- conducting an examination of temporary disability and participation in other types of medical examination;

- provision of dental care on an outpatient basis and day hospital conditions;

- participation in the provision of medical care in emergency situations, including participation in medical evacuation;

- participation in medical rehabilitation and sanatorium treatment of patients with dental diseases;

- formation of motivation among the population, patients and members of their families, aimed at

maintaining and strengthening one's own health and the health of others;

- training patients in basic hygiene measures of a health-improving nature, which contribute to the prevention of the occurrence of dental diseases and health promotion;

As a result of studying this discipline, students form the following general professional competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of general professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Etiology and pathogenesis	OPK-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
Treatment of diseases and conditions	OPK-7 Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
GPC-5.1	Knows the algorithm of physical

Knows the patterns of functioning of a healthy human body and the mechanisms for ensuring health from the standpoint of the theory of functional systems; features of the regulation of the functional systems of the human body in pathological processes	examination of dental patients and patients with injuries of the maxillofacial region, the principles of clinical, laboratory and instrumental diagnostics
	Able to conduct a physical examination of dental patients and patients with injuries of the maxillofacial region, to diagnose the clinical manifestations of diseases; draw up a plan for the necessary examination and treatment of dental patients and patients with trauma to the maxillofacial region; interpret the results of laboratory and instrumental research methods
	Owms the methods of clinical and instrumental examination of dental patients and patients with injuries of the maxillofacial region
GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods	<b>Knows</b> features of the pharmacodynamics of drugs, the mechanism of therapeutic agents and methods in physiological and pathological conditions of a person.
	<b>smartert</b> draw up a treatment plan based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.
	<b>Capable on your own</b> prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
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Type of tasks of professional activity: medical	<p>PC-4</p> <p>Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-4.4</p> <p>Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care</p>
	<p>PC-5</p> <p>Capable of making a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)</p>	<p>PC-5.4</p> <p>Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis</p>
	<p>PC-6</p> <p>Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-6.3</p> <p>Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-7</p> <p>Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care,</p>	<p>PC-7.2</p> <p>Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines</p>

	clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	(treatment protocols) on the provision of medical care, taking into account the standards of medical care
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care	<b>Knows</b> the volume, content and sequence of diagnostic measures, taking into account the standards of medical care in order to recognize the condition or establish the fact of the presence or absence of diseases and injuries of the maxillofacial region
	<b>Can</b> determine the sequence of volume, content and sequence of diagnostic measures, taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of diseases and injuries of the maxillofacial region
	Possesses the skill of independently determining the order, volume, content and sequence of diagnostic measures, taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of diseases and injuries of the maxillofacial region
PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis	Knows the necessary information about the development and course of the disease, according to the ICD-X revision
	Able to identify possible etiological factors, apply objective methods of examination of the patient, identify common and specific signs of diseases in dental patients and patients with trauma to the maxillofacial region
	Possesses well-formed theoretical and practical skills, allowing to establish a diagnosis according to the ICD
PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical	Knows general and special methods of diagnosis and treatment of dental patients and patients with injuries of the maxillofacial region
	Able to apply objective methods of examination of dental patients and patients with injuries of the maxillofacial region, to identify common and specific signs of diseases; Determine the



<p>recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>indications for the treatment of dental patients and patients with injuries of the maxillofacial region in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>
	<p>Possesses the formed theoretical knowledge of drawing up a treatment plan for dental patients and patients with injuries of the maxillofacial region, taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account standards medical care</p>
<p>PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows modern medicines, medical devices used to treat patients with diseases and injuries of the maxillofacial area in accordance with the current procedures for providing medical care, clinical guidelines (treatment protocol)</p>
	<p>Knows how to determine indications for prescribing medicines, medical devices and medical nutrition, taking into account the standards of medical care</p>
	<p>Possesses theoretical knowledge about prescribing medicines, medical devices and medical nutrition, taking into account the diagnosis, the age of dental patients and patients with injuries of the maxillofacial region in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol) on the provision of medical care, taking into account health care standards</p>

## ANNOTATION

Discipline "Phthisiology»is intended for students enrolled in the educational program 31.05.01 "Medicine", is included in the mandatory part of the curriculum.

The discipline is implemented on the 6th year in the 12th semester

When developing the working program of the discipline, the Federal State Educational Standard of Higher Education (the level of training of highly qualified personnel) in the specialty 31.05.01 "General Medicine", the curriculum for training students in the profile 31.05.01 "General Medicine" were used.

The total labor intensity of the discipline is 108 hours, 3 credits.

The course program is based on the basic knowledge gained by specialists:

- readiness for the medical use of drugs and other substances, and their combinations in solving professional problems (OPK-8);
- readiness to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, patho-anatomical and other studies in order to recognize the condition or establish the presence or absence of the disease(PC-5);
- the ability to determine in patients the main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision(PC-6);
- the ability to determine the tactics of managing patients with various nosological forms (PC-8);
- readiness to provide medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases that are not accompanied by a threat to the patient's life and do not require emergency medical care (PC - 10).

### **Goals and objectives of the discipline.**

**Course objective:**mastering by students of methods of early diagnosis and provision of therapeutic and preventive care to patients with infectious diseases and tuberculosis.

### **Tasks:**

-formation of a system of knowledge on infectious diseases and phthysiology, the study of the general patterns of development of the infectious process and tuberculosis;

- development of skills for analyzing data from anamnesis, objective and laboratory examination in infectious diseases and phthysiology, with an emphasis on their characteristic pathological syndromes, necessary to solve a problem corresponding to the basic level of professional competence of a general practitioner in the field of infectious diseases and phthysiology;

- development of modern methods of recognition and treatment of infectious diseases and tuberculosis in accordance with existing international classifications;

- mastering the principles of conducting anti-epidemic and preventive measures in healthcare facilities and among the population;

- organization of the practical component of the activities of a phthysiatrician in the field of infectious pathology and phthysiology, corresponding to the basic level of professional competence, aimed at applying knowledge on infectious diseases and phthysiology in medical professional activities;

-training in the analysis of scientific literature and official statistical reviews,preparation of abstracts on modern scientific problems.

As a result of studying this discipline, students form the following general professional competencies:

Name of the category (group) of universal competencies	Code and name of general professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Etiology and pathogenesis	OPK-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems

Treatment of diseases and conditions	OPK-7 Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods
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Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems	Knows the algorithm of physical examination, clinical and laboratory, instrumental diagnostics with suspected tuberculosis,
	Able to conduct a physical examination, clinical and laboratory, instrumental diagnostics with suspected tuberculosis; interpret the results of laboratory and instrumental research methods
	Proficient in physical examination, clinical laboratory, instrumental diagnostics with suspected tuberculosis
GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods	<b>Knows</b> features of the pharmacodynamics of drugs, the mechanism of therapeutic agents and methods in physiological and pathological conditions of a person.
	<b>smartert</b> analyze the effect of drugs on the basis of their pharmacological properties and the possibility of their use for therapeutic treatment; write prescriptions for medicines, use various medicines, apply basic antibacterial, antiviral and biological drugs; evaluate possible manifestations in case of drug overdose and ways to eliminate them; substantiate the principles of pathogenetic therapy of the most common diseases.
	<b>owns</b> skills in the use of medicines in the treatment, rehabilitation and prevention of various diseases and pathological conditions.

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
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Type of tasks of professional activity: medical	<p>PC-4</p> <p>Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-4.4</p> <p>Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care</p>
	<p>PC-5</p> <p>Capable of making a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)</p>	<p>PC-5.4</p> <p>Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis</p>
	<p>PC-6</p> <p>Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-6.3</p> <p>Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-7</p> <p>Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care,</p>	<p>PC-7.2</p> <p>Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines</p>

	clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	(treatment protocols) on the provision of medical care, taking into account the standards of medical care
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>	
PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care	<b>Knows</b> the volume, content and sequence of diagnostic measures, taking into account the standards of medical care for infectious diseases and tuberculosis.	
	<b>Can</b> determine the sequence of volume, content and sequence of diagnostic measures, taking into account the standards of medical care for infectious diseases and tuberculosis.	
	Possesses the skill of independently determining the order, volume, content and sequence of diagnostic measures, taking into account the standards of medical care for infectious diseases and tuberculosis.	
PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis	Knows the necessary information about the development and course of the disease, according to the ICD-X revision	
	Able to identify possible etiological factors, apply objective methods of examination of the patient, identify common and specific signs of disease in patients with suspected tuberculosis	
	Possesses well-formed theoretical and practical skills, allowing to establish a diagnosis according to the ICD	
PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	Knows general and specific methods for diagnosing and treating patients with suspected tuberculosis	
	Able to apply objective methods of examination of dental patients and patients with suspected tuberculosis, to identify common and specific signs of disease;	
	Possesses the formed theoretical knowledge of drawing up a treatment plan for patients, taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment	

	protocol) on the provision of medical care, taking into account the standards of medical care
<p>PC-7.2</p> <p>Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	Knows modern medicines, medical devices used to treat tuberculosis in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)
	Knows how to determine indications for prescribing medicines, medical devices and medical nutrition, taking into account the standards of medical care
	Possesses theoretical knowledge on the prescription of medicines, medical devices and nutritional therapy, taking into account the diagnosis, age in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol) on the provision of medical care, taking into account the standards of medical care

## ANNOTATION

Discipline Oncology, radiation therapy» is intended for students enrolled in the educational program of higher education 31.05.01 "Medicine", is included in the mandatory part of the curriculum as a discipline of choice, is implemented in the 6th year in the C semester. The total labor intensity of the discipline is 108 hours, 3 credits.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education was used in the specialty 31.05.01 "General Medicine" (specialist training level).

### **Goals and objectives of the discipline.**

**aim** mastering the discipline "Oncology, radiation therapy" is: to teach students the theoretical and practical foundations of the prevention, diagnosis and treatment of cancer

### **Tasks**

1. To study the main nosological forms of oncological diseases
2. To teach the basics of early diagnosis of oncological diseases in a clinic and at home;
3. To teach the basics of carrying out a complex of therapeutic and preventive measures at the pre-hospital stage in an oncological dispensary;
4. To study modern tactics in relation to oncological patients.
5. To study modern methods of treatment of oncological diseases, including radiation therapy
6. To study the features of providing medical care to cancer patients

To solve these problems, a course of thematic lectures, clinical reviews of patients, the development of modern diagnostic methods and methods of treatment are planned.

As a result of studying this discipline, students form the following general professional competencies:

Name of the category (group) of	Code and name of general professional	Code and name of the indicator of achievement of competence
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universal competencies	competence (the result of mastering)	
Etiology and pathogenesis	OPK-5 Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems
Treatment of diseases and conditions	OPK-7 Able to prescribe treatment and monitor its effectiveness and safety	GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
GPC-5.3 Owns the algorithm of physical examination, clinical laboratory, instrumental diagnostics in solving professional problems	Knows the algorithm of physical examination of patients with cancer, the principles of clinical, laboratory and instrumental diagnostics
	Able to conduct a physical examination of patients with cancer, to diagnose the clinical manifestations of diseases; make a plan for the necessary patients with cancer; interpret the results of laboratory and instrumental research methods
	Owns the methods of clinical and instrumental examination of patients with cancer
GPC-7.1 Able to prescribe treatment based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods	<b>Knows</b> features of the pharmacodynamics of drugs, the mechanism of therapeutic agents and methods in physiological and pathological conditions of a person.
	<b>smartert</b> draw up a treatment plan based on knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.
	<b>Capable on your own</b> prescribe treatment based on

	knowledge of morphofunctional characteristics, physiological conditions and pathological processes in the human body, based on the pharmacodynamics of drugs and the mechanism of action of other therapeutic agents and methods.
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As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care
	PC-5 Capable of making a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)	PC-5.2 Able to carry out early diagnosis of diseases of internal organs
		PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis

	<p>PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-6.2 Knows how to provide palliative care</p>
		<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-7 Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
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<p>PC-4.4</p> <p>Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care</p>	<p><b>Knows</b> the volume, content and sequence of diagnostic measures, taking into account the standards of medical care, in order to recognize the condition or establish the fact of the presence or absence of an oncological disease</p>
	<p><b>Can</b> determine the sequence of the volume, content and sequence of diagnostic measures, taking into account the standards of medical care in order to recognize the condition or establish the fact of the presence or absence of an oncological disease</p>
	<p>Possesses the skill of independently determining the order, volume, content and sequence of diagnostic measures, taking into account the standards of medical care, in order to recognize the condition or establish the fact of the presence or absence of an oncological disease</p>
<p>PC-5.2</p> <p>Able to carry out early diagnosis of diseases of internal organs</p>	<p><b>Knows</b> principles of early diagnosis of diseases of internal organs in patients with cancer</p>
	<p><b>Can</b> draw up an action plan for the early diagnosis of diseases of internal organs in patients with cancer</p>
	<p><b>owns</b> the skill of early diagnosis of diseases of internal organs in patients with oncological diseases</p>
<p>PC-5.4</p> <p>Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis</p>	<p>Knows the necessary information about the development and course of the disease, according to the ICD-X revision</p>
	<p>Able to identify possible etiological factors, apply objective methods of examining the patient, identify general and specific signs of oncological disease necessary for diagnosis</p>
	<p>Possesses well-formed theoretical and practical skills, allowing to establish a diagnosis according to the ICD</p>
<p>PC-6.2</p> <p>Knows how to provide palliative care</p>	<p><b>Knows diseases in need</b> in providing palliative care.</p>
	<p><b>Can</b> determine the indications and methods of palliative care in accordance with the procedures for the provision of palliative care.</p>
	<p>Possesses the skill of providing palliative care in accordance with the procedures for providing palliative care.</p>
<p>PC-6.3</p>	<p>Knows general and special methods of diagnosis and treatment cancer patients</p>

<p>Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Ability to apply objective examination methods to identify common and specific features of diseases; determine indications for treatment in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>
<p>PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Possesses the formed theoretical knowledge of drawing up a treatment plan taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care</p>
	<p>Knows modern medicines, medical devices used for treatment in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocol)</p>
	<p>Knows how to determine indications for prescribing medicines, medical devices and medical nutrition, taking into account the standards of medical care</p>
	<p>Possesses theoretical knowledge about prescribing medicines, medical devices and therapeutic nutrition, taking into account the diagnosis, age of patients with cancer with the current procedures for the provision of medical care, clinical recommendations (treatment protocol) on the provision of medical care, taking into account the standards of medical care</p>

## ANNOTATION

The discipline "Emergency assistance in simulated conditions" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the basic part of the curriculum, is implemented in the 6th year in the semester. The total labor intensity of the discipline is 72 hours, 2 credits. The curriculum provides for practical classes (54 hours) and independent work of the student (18 hours). The study of the discipline ends with a test.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" (specialist level of training), the curriculum for preparing students were used.

In the process of studying the discipline, students acquire knowledge about the practical foundations of emergency and emergency medical care at the prehospital stage in life-threatening conditions.

The discipline "Emergency care in simulated conditions" has a close connection with such disciplines as "Anesthesiology, resuscitation, intensive care", "Disaster medicine", "Internal medicine", "Human anatomy", "Life safety".

### **Goals and objectives of the discipline.**

**aim** mastering the discipline is the improvement of students' professional competencies in providing emergency and urgent care to the patient in simulated conditions in accordance with the federal state educational standard.

**Task:** to form the student's professional competencies, correlated with the labor functions of a doctor:

- on examination of patients in a condition requiring emergency and urgent care;
- for preventive measures, sanitary educator ongoing work to prevent conditions requiring medical care in an emergency and urgent form; monitoring their effectiveness;
- assessing the safety of the patient, medical personnel and the personal safety of the doctor when providing care to the patient;
- on the use of special equipment for diagnosing the patient's condition in

accordance with the current procedures for the provision of medical care, clinical recommendations on the provision of medical care, taking into account the standards of medical care;

- on conducting cardiopulmonary resuscitation and defibrillation in case of cardiac arrest under simulated conditions (on a manikin).

As a result of studying this discipline, students form the following universal competencies:

<b>Name of the category (group) of universal competencies</b>	<b>Code and name of the universal competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Teamwork and Leadership	UK-3 Able to organize and manage the work of the team, developing a team strategy to achieve the goal	UK-3.1 Able to form a team to perform practical tasks, develop a team strategy and work in a team
Life safety	UK-8 Able to create and maintain safe living conditions in everyday life and in professional activities to preserve the natural environment, ensure the sustainable development of society, including in the event of a threat and the occurrence of emergencies and military conflicts	UK-8.5 Knows how to use personal and collective protective equipment and first aid
		UK-8.6 Able to provide first aid to the injured

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
UK-3.1 Able to form a team to perform practical tasks, develop a team strategy and work in a team	<b>Know</b> existing cooperation strategies in organizing teamwork
	<b>Can</b> determine their role in the team in solving tasks
	<b>own</b> team building skills

UK-8.5 Knows how to use personal and collective protective equipment and first aid	<b>Knows</b> classification and principle of the protective action of individual and collective protective equipment, standard first aid equipment
	<b>Can</b> use personal and collective protective equipment, personal first aid equipment in case of a threat and the occurrence of emergencies and military conflicts
	<b>owns</b> the ability to use personal and collective protective equipment, first aid, both in everyday life and in the event of a threat and the occurrence of emergencies and military conflicts
UK-8.6 Able to provide first aid to the injured	<b>Knows</b> basics of first aid and medical medical care for victims: pathology, clinic and treatment of lesions with toxic chemicals and ionizing radiation
	<b>Can</b> provide first aid in the lesions and at the stages of medical evacuation
	<b>owns</b> first aid techniques for life-threatening conditions for victims in emergency situations and military conflicts

As a result of studying this discipline, students form the following general professional competencies:

Name of the category (group) of universal competencies	Code and name of general professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Diagnostic instrumental examination methods	OPK-4 Able to use medical devices provided for by the order of medical care, as well as conduct examinations of the patient in order to establish a diagnosis	GPC-4.1 Able to use medical devices provided for by the order of medical care
		GPC-4.2 Able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care, taking into account the standards of medical care in order to establish a diagnosis

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
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<p>GPC-4.1</p> <p>Able to use medical devices provided for by the order of medical care</p>	<p><b>Knows</b> basic medical products, specialized equipment, technologies provided for by the procedure for providing medical care</p>
	<p><b>Can</b> use the procedures for providing medical care for the use of medical devices, specialized equipment and medical technologies.</p>
	<p><b>Owns a skill</b> the use of medical devices, specialized equipment and medical technologies in accordance with the procedures for providing medical care.</p>
<p>GPC-4.2</p> <p>Able to use medical devices in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care, taking into account the standards of medical care in order to establish a diagnosis</p>	<p><b>Knows</b> current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care that determine the use of medical devices, equipment, technologies in order to establish a diagnosis</p>
	<p><b>Can</b> use the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care that determine the use of medical devices, equipment, technologies in order to establish a diagnosis</p>
	<p><b>Owns a skill</b> selection of used medical devices in order to establish a diagnosis in accordance with the current procedures for the provision of medical, clinical recommendations (treatment protocols) on the provision of medical care, care, taking into account the standards of medical care</p>

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	PC-3 Ready to provide emergency medical care to patients in conditions that threaten the patient's life, including clinical death (stopping the vital functions of the human body (blood circulation and/or respiration))	PC-3.4 Knowledge of basic cardiopulmonary resuscitation
		PC-3.5 Knows the principles of operation of devices for external electropulse therapy (defibrillation)

		PC-3.6 Knows the rules for performing external electrical impulse therapy (defibrillation) in case of a sudden cessation of blood circulation and / or breathing
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-3.4 Knowledge of basic cardiopulmonary resuscitation	<b>Knows</b> methodology and algorithm for conducting basic cardiopulmonary resuscitation in combination with defibrillation.
	<b>Can</b> perform basic cardiopulmonary resuscitation and evaluate its effectiveness.
	<b>owns</b> Ability to independently perform basic cardiopulmonary resuscitation.
PC-3.5 Knows the principles of operation of devices for external electropulse therapy (defibrillation)	<b>Knows</b> devices for external electropulse therapy (defibrillation) and principles of their operation.
	<b>Can</b> use devices for external electropulse therapy (defibrillation).
	<b>Owns a skill</b> independent use of devices for external electropulse therapy (defibrillation).
PC-3.6 Knows the rules for performing external electrical impulse therapy (defibrillation) in case of a sudden cessation of blood circulation and / or breathing	<b>Knows m</b> Mechanism of action and rules for performing external electrical impulse therapy (defibrillation) in case of sudden cessation of blood circulation and / or respiration
	<b>Can</b> correctly perform external electrical impulse therapy (defibrillation) in case of a sudden cessation of blood circulation and / or breathing
	<b>Owns a skill</b> self-execution of external electrical impulse therapy (defibrillation) in case of sudden cessation of blood circulation and / or respiration

## ANNOTATION

Discipline Transfusiology» is intended for students enrolled in the educational program of higher education 31.05.01 "General Medicine", is included in the variable part of the curriculum, is implemented in the 5th year in the 9th semester. The total labor intensity of the discipline is 108 hours, 3 credits.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education was used in the specialty 31.05.01 "General Medicine" (specialist training level).

The course program is based on the basic medical knowledge gained by specialists:

1. PC-5 - readiness to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of the disease;

2. PC-10 - readiness to provide medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases that are not accompanied by a threat to the patient's life and do not require emergency medical care;

3. PC-13 - readiness to participate in the provision of medical care in emergency situations, including participation in medical evacuation;

### **Goals and objectives of the discipline.**

**aim** mastering the discipline "Transfusiology" is: to teach students the theoretical and practical foundations of infusion-transfusion therapy, necessary for a doctor of any specialty.

## Tasks

1. To teach the basics of compiling an infusion-transfusion therapy program
2. To study the rules of transfusion of blood, its components and preparations, blood substitutes
3. Learn the basics of prevention and treatment of post-transfusion complications and reactions.
4. To study the basics of infusion-transfusion therapy in the treatment of pathological conditions requiring intensive care
5. Organization of work of medical organizations of blood service, organization of blood donation.
6. To study modern technologies in transfusiology

To solve these problems, a course of thematic lectures, clinical reviews of patients, the development of modern diagnostic methods and methods of treatment are planned.

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care

		<p>PC-6.3</p> <p>Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-7</p> <p>Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-7.1</p> <p>Knows the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.</p> <p>PC-7.2 Knows how to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of	<b>Knows</b> modern methods and indications for the use of blood components and blood substitutes, modern methods of detoxification, correction of disorders of the blood coagulation and anticoagulation systems, metabolic disorders, therapeutic nutrition for diseases and conditions in a patient in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) according to issues of providing medical care, taking into account the standards of medical care.

<p>medical care, taking into account the standards of medical care.</p>	<p><b>Can</b> apply modern diagnostic systems for determining blood groups according to the ABO system and the Rh factor, blood components and modern blood substitutes for various pathological conditions in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care .</p>
<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>own</b> the skill of determining blood groups according to the ABO system and the Rh factor by the method of monoclonal antibodies and standard erythrocytes, conducting tests for compatibility during transfusion of blood components and blood substitutes</p>
	<p><b>Know</b>s pathophysiological basis of changes in the patient's body during bleeding and blood loss, trauma, various types of shock, pathology of the blood coagulation and anticoagulation systems, including DIC, exogenous and endogenous intoxication, methods of treatment using transfusion therapy, taking into account age patient, clinical picture, in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p><b>Can</b> draw up a treatment plan using transfusion therapy, taking into account the diagnosis, the age of the patient, the clinical picture, in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p><b>Capable</b> draw up a treatment plan using transfusion therapy, taking into account the patient's age, clinical picture with blood loss, endogenous intoxication syndrome, with various types of shock, with pathology of the blood coagulation and anticoagulation systems, including DIC in accordance with the current procedures for providing medical assistance, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-7.1 Knows the mechanism of action of drugs, medical devices and medical nutrition, medical indications and contraindications for their use; complications associated with their use.</p>	<p><b>Knows</b> mechanism of action of blood components and modern blood substitutes, their mechanism of action, indications, contraindications to their use, complications caused by their use, measures for the prevention and treatment of complications during transfusion of blood components and blood substitutes.</p>
	<p><b>smarter</b> justify the appointment of infusion and transfusion</p>

	<p>therapy, determine the indications and contraindications for the use of transfusion and infusion media, conduct tests for compatibility when transfusing blood components and blood substitutes, identify complications of infusion and transfusion therapy, provide first aid in the event of these complications</p>
<p>PC-7.2 Knows how to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>owns</b>the skill of conducting infusion and transfusion therapy based on knowledge of the pathogenesis of diseases and the mechanism of action of infusion and transfusion media, testing for compatibility during transfusion of blood components and blood substitutes, providing first aid in case of complications caused by the use of infusion and transfusion therapy</p> <p><b>Knows</b>indications for the use of infusion and transfusion therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p><b>Can</b>prescribe infusion and transfusion therapy taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p> <p>Able to prescribe infusion and transfusion therapy based on the pathogenesis, clinical manifestations of the disease, diagnosis, guided by the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

## ANNOTATION

The discipline "Otorhinolaryngology" is intended for students enrolled in the educational program 31.05.01 "General Medicine".

The discipline is implemented on the 6th year, is a variable discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students were used.

The total labor intensity of the discipline is 108 hours, 3 credits.

### **Goals and objectives of the discipline.**

**Course objective:**formation of students' basic knowledge of general problems in the field of otorhinolaryngology, according to the competence of a general practitioner.

### **Tasks:**

1. To teach students the basics of knowledge of etiology, pathogenesis, leading symptoms, criteria for diagnosis, principles and methods of conducting health education work on the most common ENT diseases.

2. The student should be able to conduct an examination of a patient with ENT pathology, evaluate the data obtained, formulate a preliminary clinical diagnosis, outline a plan for additional research methods, fill out a medical history, evaluate the results of the examination, establish and justify a clinical diagnosis.

3. The student must master the clinical methods of examination of an ENT patient; interpretation of the results of laboratory, instrumental diagnostic methods, the main algorithms for making a clinical diagnosis.

4. The student must master the algorithm for performing basic diagnostic and therapeutic measures to provide first aid in case of emergency in otorhinolaryngology.

As a result of studying this discipline, students form the following professional competencies:



Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	<p>PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care</p>
	<p>PC-5 Capable of making a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)</p>	<p>PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis</p>
	<p>PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-7 Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the</p>	<p>PC-7.2 Knows how to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in</p>

	provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care	<b>Knows</b> the volume of necessary diagnostic measures, their content and the sequence of examination of patients with the main nosological forms of diseases of the upper respiratory tract and their complications, taking into account the standards of medical care
	<b>Can</b> determine the necessary diagnostic measures, their content and sequence of execution when examining patients with the main nosological forms of diseases of the ENT organs and their complications, taking into account the standards of medical care
	<b>Capable</b> draw up a plan of diagnostic measures for examining patients with the main nosological forms of diseases of the upper respiratory tract and their complications, taking into account the standards of medical care
PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis	<b>Knows</b> method of determination in patients with diseases of the upper respiratory tract main pathological conditions, symptoms. syndromes of surgical diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Health-Related Problems, X revision
	<b>smartert</b> determine the main pathological conditions, symptoms, syndromes of surgical diseases, nosological forms in patients with diseases of the ENT organs in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision
	<b>owns</b> a method for identifying the main pathological conditions and symptoms in patients with diseases of the ENT organs. syndromes of surgical diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Health-Related Problems, X revision

<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>Knows</b> principles of treatment planning for patients with diseases of the ENT organs, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care.</p>
	<p><b>Can</b> plan the use of medicines, medical devices and medical nutrition, taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the medical in accordance with the current procedures for the provision of care, clinical recommendations (treatment protocols) on the provision of assistance, taking into account the standards of medical care</p>
	<p><b>Capable</b> determine the goals of therapeutic measures for patients with diseases of the ENT organs and draw up a treatment plan taking into account the diagnosis, age of patients, the clinical picture of diseases in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-7.2 Knows how to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>Knows</b> the main groups of drugs, medical products and clinical nutrition used in the main nosological forms of diseases of the upper respiratory tract and their complications, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p><b>Can</b> apply the main groups of drugs, medical devices and clinical nutrition in the main nosological forms of diseases of the upper respiratory tract and their complications, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>Able to draw up a treatment plan and prescribe the main groups of drugs, medical devices and clinical nutrition for the main nosological forms of diseases of the upper respiratory tract and their complications, taking into</p>

	<p>account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols ) on the provision of medical care, taking into account the standards of medical care</p>
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For the formation of the above competencies within the discipline "Otorhinolaryngology" the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training programs.
2. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts, a lesson-conference.

The proportion of practical classes conducted in interactive forms is 10% of classroom time; independent extracurricular work - 50% of the time

## ANNOTATION

The discipline "Ophthalmology" is intended for students enrolled in the educational program 31.05.01 "General Medicine".

The discipline is implemented on the 6th year, is a variable discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students were used. The total labor intensity of the discipline is 108 hours, 3 credits.

### **Goals and objectives of the discipline.**

**Course objective:** is the mastery of special methods for diagnosing and treating diseases of the organ of vision, the formation of the foundations of medical thinking, skills that ensure the solution of professional problems and the application of the algorithm of medical activity in providing first aid in emergency and life-threatening conditions, in the prevention, diagnosis, treatment and rehabilitation of patients with pathology eye and its adnexa.

### **Tasks:**

1. to teach students the ability to examine adult patients with pathology of the organ of vision and identify the symptoms of their lesions;
2. to give students modern knowledge about the etiology, pathogenesis, clinic, diagnosis, treatment, prevention and expert evaluation of major ophthalmic diseases;
3. to form students' clinical thinking, the ability to independently establish and justify the diagnosis of the most common ophthalmic diseases, conduct their differential diagnosis, provide first aid, prescribe treatment for emergency conditions in accordance with the list of pathological conditions and diseases of the qualification characteristics of the specialty "Ophthalmology" and draw up a plan measures to prevent this category of diseases;
4. to instill in students the skills of deontology, moral and ethical legal culture, as well as the skills of communicating with the patient, his relatives and friends, taking into account the legal foundations of medical law.

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	<p>PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care</p>
	<p>PC-5 Capable of making a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)</p>	<p>PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis</p>
	<p>PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-7 Ready to prescribe medicines, medical devices and medical nutrition, taking into</p>	<p>PC-7.2 Knows how to prescribe medicines, medical devices and medical</p>

	account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care
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Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care	Knows the volume of necessary diagnostic measures, their content and the sequence of examination of patients with the main nosological forms of diseases of the organs of vision and their complications, taking into account the standards of medical care
	<b>Can</b> determine the necessary diagnostic measures, their content and sequence performance in the examination of patients with the main nosological forms of diseases of the organs of vision and their complications, taking into account the standards of medical care
	<b>Capable</b> draw up a plan of diagnostic measures for examining patients with the main nosological forms of diseases of the organs of vision and their complications, taking into account the standards of medical care
PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis	<b>Knows</b> method of determination in patients with diseases of the organs of vision main pathological conditions, symptoms. syndromes of surgical diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Health-Related Problems, X revision
	<b>smartert</b> determine the main pathological conditions, symptoms, syndromes of surgical diseases, nosological forms in patients with diseases of the organs of vision in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision
	<b>owns</b> a method for identifying the main pathological conditions and symptoms in patients with diseases of the organs of vision. syndromes of surgical diseases, nosological

	forms in accordance with the International Statistical Classification of Diseases and Health-Related Problems, X revision
<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>Knows</b> principles of planning the treatment of patients with diseases of the organs of vision, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care.</p>
	<p><b>Can</b> plan the use of medicines, medical devices and medical nutrition, taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the medical in accordance with the current procedures for the provision of care, clinical recommendations (treatment protocols) on the provision of assistance, taking into account the standards of medical care</p>
	<p><b>Capable</b> determine the goals of therapeutic measures for patients with diseases of the organs of vision and draw up a treatment plan taking into account the diagnosis, age of patients, the clinical picture of diseases in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-7.2 Knows how to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>Knows</b> the main groups of drugs, medical devices and clinical nutrition used in the main nosological forms of diseases of the organs of vision and their complications, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p><b>Can</b> apply the main groups of drugs, medical devices and clinical nutrition for the main nosological forms of diseases of the organs of vision and their complications, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care taking into account the standards of medical care</p>
	<p>Able to draw up a treatment plan and prescribe the main groups of drugs, medical devices and clinical nutrition for the main nosological forms of diseases of the organs of vision and their complications, taking into account the</p>



	diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care
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For the formation of the above competencies within the discipline "Ophthalmology" the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training programs.
2. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts, a lesson-conference.

The proportion of practical classes conducted in interactive forms is 10% of classroom time; independent extracurricular work - 50% of the time

## ANNOTATION

The discipline "Anesthesiology, resuscitation, intensive care" is intended for students enrolled in the educational program 31.05.01 "General Medicine".

The discipline is implemented on the 6th year, is a variable discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students were used.

The total labor intensity of the discipline is 72 hours, 2 credits.

### **Goals and objectives of the discipline.**

#### **Course objective:**

Formation in students knowledge about violations of the vital functions of the body, the principles of intensive care and resuscitation, the main methods of first aid in emergency conditions, as well as the principles of perioperative analgesia, anesthetic management of surgical interventions and diagnostic manipulations, control and prosthetics of vital body functions

#### **Tasks:**

1. Familiarization of students with the etiology and pathogenesis of critical conditions, the pathophysiological essence of the processes occurring during the dying and restoration of the body.
2. Acquisition by students of knowledge on the diagnosis and principles of treatment of critical conditions in patients of surgical, therapeutic and other profiles;
3. Training in a complex of resuscitation measures for acute respiratory and circulatory disorders, in case of clinical death; the use of modern methods of resuscitation and intensive care in providing care to patients and victims in critical conditions of various etiologies; formation of a stable algorithm for cardiopulmonary and cerebral resuscitation.
4. Formation of ideas about the principles of organization and capabilities of a modern specialized anesthesiology and resuscitation service, modern methods of monitoring and detoxification used in intensive care.

5. Familiarization of students with the principles of anesthetic management of surgical interventions and methods of analgesic therapy.

6. Formation of ideas about the principles of organization and the possibilities of a modern specialized anesthetic service.

To solve these problems, a course of thematic lectures, clinical reviews of patients, the development of modern diagnostic methods and methods of treatment are planned.

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	PC-1 Ready to participate in the provision of medical care in urgent or emergency forms	PC-1.1 Has the ability to assess the condition of a patient requiring emergency or emergency medical care
		PC-1.2 Knows the list of laboratory and instrumental research methods for assessing the patient's condition, the main medical indications for conducting research and interpreting the results
		PC-1.3 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs
		PC-1.4 Knows the methodology for collecting complaints and anamnesis from patients (their legal representatives)
	PC-2 Ready to provide emergency medical care to patients with sudden acute diseases, conditions, exacerbation of chronic diseases without	PC-2.1 Able to identify clinical signs of conditions requiring emergency medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life

	<p>obvious signs of a threat to the patient's life</p>	<p>PC-2.2 Able to perform measures to provide emergency medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life</p>
		<p>PC-2.3 Able to use medicines and medical devices in the provision of medical care in emergency or emergency forms for sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life</p>
	<p>PC-3 Ready to provide emergency medical care to patients in conditions that threaten the patient's life, including clinical death (stopping the vital functions of the human body (blood circulation and/or respiration))</p>	<p>PC-3.1 Able to identify conditions requiring emergency medical care, including clinical signs of sudden cessation of blood circulation and breathing</p>
		<p>PC-3.2 Able to perform basic cardiopulmonary resuscitation in combination with electrical impulse therapy (defibrillation)</p>
		<p>PC-3.3 Knows the clinical signs of sudden cessation of circulation and/or respiration</p>
	<p>PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-4.6 Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>
	<p>PC-6</p>	<p>PC-6.1</p>

	<p>Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-7 Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-7.1 Knows the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.</p> <p>PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-7.1 Knows the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.</p> <p>PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-11 Ready to conduct an examination of temporary disability, participate in a medical and social examination, ascertain the biological death of a person</p>	<p>PC-11.4 Knows the signs of biological death, the procedure for fixing the fact of biological death and the procedure for registering biological death</p>

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
PC-1.1 Has the ability to assess the condition of a patient requiring emergency or emergency medical care	<b>Knows</b> clinical signs characterizing the patient's condition requiring emergency or emergency medical care
	<b>Can</b> evaluate clinical signs that characterize the patient's condition requiring emergency or emergency medical care
	<b>Owens a skill</b> determining the patient's condition requiring urgent or emergency medical care
PC-1.2 Knows the list of laboratory and instrumental research methods for assessing the patient's condition, the main medical indications for conducting research and interpreting the results	<b>Knows</b> methods of laboratory and instrumental studies to assess the patient's condition in the provision of emergency and emergency medical care.
	<b>Can</b> determine the indications for the appointment of laboratory and instrumental studies to assess the patient's condition in the provision of emergency and emergency medical care.
	<b>owns</b> the skill of interpreting the results of laboratory and instrumental studies to assess the patient's condition in the provision of emergency and emergency medical care.
PC-1.4 Knows the methodology for collecting complaints and anamnesis from patients (their legal representatives)	<b>Knows</b> etiology, pathogenesis and pathomorphology, clinical picture, course features, complications and outcomes of diseases of internal organs in the provision of emergency and emergency medical care.
	<b>Can</b> formulate a clinical diagnosis, determine a number of diseases for differential diagnosis in the provision of emergency and emergency medical care.
	<b>Owens a skill</b> clinical diagnosis, differential diagnosis. in the provision of urgent and emergency medical care.
PC-1.3 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs	<b>Knows</b> the methodology for interviewing patients (their legal representatives) in the provision of emergency and emergency medical care.
	<b>Can</b> conduct a survey of patients (their legal representatives) in the provision of emergency and emergency medical care.
	<b>Owens the technique</b> collecting complaints and anamnesis from patients and / or their legal representatives in the provision of emergency and emergency medical care.
PC-2.1 Able to identify clinical signs of conditions requiring emergency medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases without	<b>Knows</b> clinical signs of conditions requiring emergency medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life
	<b>Can</b> identify clinical signs of conditions requiring emergency medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life

obvious signs of a threat to the patient's life	<b>Owns a skill</b> identifying clinical signs of conditions requiring emergency medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life
PC-2.2 Able to perform measures to provide emergency medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life	<b>Knows</b> measures to provide emergency medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life
	<b>Can</b> provide emergency medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life
	<b>Owns a skill</b> independently provide emergency medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life
PC-2.3 Able to use medicines and medical devices in the provision of medical care in emergency or emergency forms for sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life	<b>Knows</b> medicines and medical products in the provision of emergency and emergency medical care for sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat to the patient's life
	<b>Can</b> use medicines and medical devices in the provision of emergency or emergency medical care for sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of threat
	<b>Owns a skill</b> independently use medicines and medical devices in the provision of emergency or emergency medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases without obvious signs of a threat
PC-3.1 Able to identify conditions requiring emergency medical care, including clinical signs of sudden cessation of blood circulation and breathing	<b>Knows</b> conditions requiring emergency medical care, including clinical signs of a sudden cessation of blood circulation and breathing.
	<b>Can</b> identify conditions requiring emergency medical care, including clinical signs of sudden cessation of blood circulation and breathing
	<b>Owns a skill</b> self-determination of a condition requiring emergency medical care, including sudden cessation of blood circulation and breathing
PC-3.2 Able to perform basic cardiopulmonary resuscitation in combination with electrical impulse therapy (defibrillation)	<b>Knows since</b> conditions requiring basic cardiopulmonary resuscitation with defibrillation.
	<b>Can</b> perform basic cardiopulmonary resuscitation in combination with defibrillation.
	<b>owns</b> the skill of evaluating the effectiveness of basic cardiopulmonary resuscitation in combination with defibrillation.

<p>PC-3.3</p> <p>Knows the clinical signs of sudden cessation of circulation and/or respiration</p>	<p><b>Knows</b> clinical signs of sudden cessation of blood circulation and respiration.</p>
	<p><b>Can</b> determine the sudden cessation of blood circulation and respiration by clinical signs.</p>
	<p><b>Owens a skill</b> self-determination by clinical signs of a sudden cessation of blood circulation and / or respiration</p>
<p>PC-4.6</p> <p>Knows the procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>	<p><b>Knows</b> procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care.</p>
	<p><b>Can</b> use in practice the procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care.</p>
	<p><b>Owens a skill</b> provision of medical care in accordance with clinical guidelines (treatment protocols) on the provision of medical care, standards of medical care</p>
<p>PC-6.1</p> <p>Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>Knows</b> modern methods of using medicines, medical devices and clinical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p><b>Can</b> draw up a plan for the use of medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p><b>Owens a skill</b> self-administration of medicines, medical devices and clinical nutrition for diseases and conditions of a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-6.3</p> <p>Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of</p>	<p><b>Knows</b> current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>
	<p><b>Can</b> draw up a treatment plan for the patient's diseases in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care</p>
	<p><b>Owens a skill</b> drawing up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, the patient's age, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the</p>



<p>medical care, taking into account the standards of medical care</p>	<p>provision of medical care, taking into account the standards of medical care</p>
<p>PC-7.1 Knows the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.</p>	<p><b>Knows</b> the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.</p>
	<p><b>Can</b> choose medicines, medical devices and nutritional therapy, taking into account medical indications and contraindications, possible complications caused by their use</p>
	<p><b>Owens a skill</b> self-selection of medicines, medical devices and clinical nutrition, taking into account medical indications and contraindications, possible complications caused by their use</p>
<p>PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p><b>Knows</b> current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care for the prescription of medicines, medical devices and clinical nutrition, taking into account the diagnosis, age and clinical picture of the disease.</p>
	<p><b>Can</b> prescribe medicines, medical products and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p><b>owns</b> the skill of self-administration of medicines, medical devices and clinical nutrition, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
<p>PC-11.4 Knows the signs of biological death, the procedure for fixing the fact of biological death and the procedure for registering biological death</p>	<p><b>Knows</b> signs of biological death, the procedure for fixing the fact of biological death and the procedure for registering biological death</p>
	<p><b>Can</b> determine the signs of biological death and record the fact of biological death.</p>
	<p><b>Capable</b> independently determine the signs of biological death and record the fact of biological death</p>

## ANNOTATION

The discipline "Clinical Pharmacology" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the basic part, is included in the variable part of the curriculum, is implemented in the 6th year in the semester.

The total labor intensity of mastering the discipline is 4 credit units, 144 hours. The curriculum provides for lectures (18 hours), practical classes (52 hours), independent work of the student (74 hours).

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" (specialist level of training), the curriculum for preparing students were used.

### **Goals and objectives of the discipline.**

**aim**The program is to expand the natural science training of future pharmacists in the field of clinical pharmacology. The study of the most effective and safe drugs or their combinations for the information of physicians based on the knowledge of pharmacodynamics, pharmacokinetics, drug interactions, adverse drug reactions, the principles of evidence-based medicine.

### **Tasks:**

- formation of knowledge on the main issues of clinical pharmacology (pharmacodynamics, pharmacokinetics, pharmacogenetics, drug interactions, adverse drug reactions, pharmacoeconomics, pharmacoepidemiology).
- formation of ideas about the sections of clinical pharmacology that regulate the rational choice of drugs: evaluation of efficacy and safety, drug formulary, pharmacoeconomics, pharmacoepidemiology.

As a result of studying this discipline, students form the following professional competencies (elements of competencies).

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
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Type of tasks of professional activity: medical	<p>PC-6</p> <p>Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-6.1</p> <p>Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
		<p>PC-6.3</p> <p>Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
	<p>PC-7</p> <p>Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-7.1</p> <p>Knows the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.</p>
	<p>PC-9</p> <p>Capable of evaluating the efficacy and safety of the use of drugs, medical devices, clinical nutrition and other methods of treatment</p>	<p>PC-9.1</p> <p>Knows the mechanism of action of non-drug treatment; medical indications and contraindications to its appointment; side effects, complications caused by its use</p>
		<p>PC-9.2</p> <p>Able to evaluate the effectiveness and safety of the use of medicines,</p>

		medical devices and clinical nutrition
	PC-10 Ready to organize personalized treatment of the patient, including pregnant women, elderly and senile patients, evaluation of the effectiveness and safety of treatment	PC-10.2 Able to prescribe personalized treatment of patients depending on the constitutional type, age, comorbidities and changes associated with pregnancy, taking into account the standards of medical care

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	<b>Knows</b> modern methods of using medicines, medical devices and clinical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care
	<b>Can</b> draw up a plan for the use of medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care
	<b>Owns a skill</b> self-administration of medicines, medical devices and clinical nutrition for diseases and conditions of a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care
PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the	<b>Knows</b> current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care
	<b>Can</b> draw up a treatment plan for the patient's diseases in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care
	<b>Owns a skill</b> drawing up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, the patient's age, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the

standards of medical care	provision of medical care, taking into account the standards of medical care
PC-7.1 Knows the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.	<b>Knows</b> the mechanism of action of drugs, medical products and medical nutrition, medical indications and contraindications to their use; complications associated with their use.
	<b>Can</b> choose medicines, medical devices and nutritional therapy, taking into account medical indications and contraindications, possible complications caused by their use
	<b>Owens a skill</b> self-selection of medicines, medical devices and clinical nutrition, taking into account medical indications and contraindications, possible complications caused by their use
PC-9.1 Knows the mechanism of action of non-drug treatment; medical indications and contraindications to its appointment; side effects, complications caused by its use	<b>Knows</b> the mechanism of action of non-drug treatment, medical indications and contraindications to its use; complications associated with its use
	<b>Can</b> evaluate the effect of prescribing non-drug treatment, taking into account medical indications and contraindications, possible complications caused by its use
	<b>Owens a skill</b> choice of methods of non-drug treatment, taking into account medical indications and contraindications, possible complications caused by its use
PC-9.2 Able to evaluate the effectiveness and safety of the use of medicines, medical devices and clinical nutrition	<b>Knows</b> mechanism of action, therapeutic effects and possible complications of the use of drugs, medical devices and clinical nutrition
	<b>Can</b> evaluate the effect of prescribing drugs, medical devices and medical nutrition, taking into account medical indications and contraindications, possible complications caused by their use
	<b>owns</b> the ability to independently evaluate the effect of prescribing drugs, medical devices and therapeutic nutrition, taking into account medical indications and contraindications, possible complications caused by their use
PC-10.2 Able to prescribe personalized treatment of patients depending on the constitutional type, age, comorbidities and changes associated with pregnancy, taking into account the standards of medical care	<b>Knows</b> features of the impact of various methods of treatment on the body of a pregnant woman and the fetus.
	<b>Can</b> on the basis of specialist advice, prescribe personalized treatment of patients depending on the constitutional type, age, comorbidities and changes associated with pregnancy, taking into account the standards of medical care
	<b>Owens a skill</b> involvement of specialists for consultation with the aim of prescribing personalized treatment of patients depending on the constitutional type, age, concomitant diseases and changes associated with pregnancy, taking into account the standards of medical care.

## ANNOTATION

The discipline "Forensic Medicine" is intended for the direction 31.05.01 "General Medicine", the labor intensity is 3 credit units, which corresponds to 108 academic hours. The discipline "Forensic Medicine" is included in the variable part of the curriculum as a compulsory discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education (the level of training of highly qualified personnel) in the specialty 31.05.01 "General Medicine" was used.

The discipline is divided into sections, in which lecture and practical material is spelled out in detail.

### **Goals and objectives of the discipline.**

**Target** to develop students' knowledge about theoretical and practical issues of forensic medicine to the extent necessary for the successful fulfillment of the duties of a specialist.

### **Tasks:**

- To acquaint students with the legal regulation and organization of forensic medical examination, the responsibility of a doctor for causing harm to health in the process of providing medical care and committing professional and professional offenses;
- To acquaint students with the morphological features of the course of pathological processes under various types of external influences and extreme conditions.

For successful study of the discipline "Forensic Medicine", students should have the following preliminary competencies:

- the ability to determine the main pathological conditions, symptoms, syndromes of diseases, nosological forms in patients in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision (PC-6)

- the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (OPK-9)

- ability and willingness to implement ethical and deontological principles in professional activities (GPC-3)
- readiness to maintain medical records (OPK-6).

As a result of studying this discipline, students form the following professional competencies (elements of competencies).

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-11 Ready to conduct an examination of temporary disability, participate in a medical and social examination, ascertain the biological death of a person	PC-11.4 Knows the signs of biological death, the procedure for fixing the fact of biological death and the procedure for registering biological death

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-11.4 Knows the signs of biological death, the procedure for fixing the fact of biological death and the procedure for registering biological death	<b>Knows</b> signs of biological death, the procedure for fixing the fact of biological death and the procedure for registering biological death
	<b>Can</b> determine the signs of biological death and record the fact of biological death.
	<b>Capable</b> independently determine the signs of biological death and record the fact of biological death

## ANNOTATION

The discipline "Reproductive Health" is intended for students enrolled in the educational program 31.05.01 "General Medicine".

The discipline is implemented on the 6th year, is a discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students were used.

The total labor intensity of the discipline is 72 hours, 2 credits.

The course program is based on the basic knowledge gained by students: ability for abstract thinking, analysis, synthesis (OK-1);

willingness to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies and taking into account the basic requirements of information security (OPK-1);

### **Goals and objectives of the discipline.**

#### **Course objective:**

Student uptake information about human development, reproductive health, the culture of intimate relationships, maintaining health through the prevention of unwanted pregnancies, sexually transmitted infections (STIs); training of a qualified specialist to promote knowledge about the preservation of reproductive health.

#### **Discipline tasks:**

1. Teaching students anatomical and physiological characteristics of the female body.

2. Familiarize yourself with the basics of human reproduction

3. Give the concept of the basics of human reproductive health

4. To instill the basics of hygiene of sex and sexual life

5. Familiarize yourself with modern methods of contraception.

6. Educate on the prevention of sexually transmitted infections.

As a result of studying this discipline, students form the following general professional and professional competencies:



Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors	<b>Knows</b> the volume of laboratory and instrumental examination of the patient, the need to refer the patient for consultations to specialist doctors in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account standards medical care.
	<b>Can</b> justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations to specialist doctors in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care according to the standards of medical care.
	<b>Owens a skill</b> independent determination of the volume of laboratory and instrumental examination of the patient, the

	need to refer the patient for consultations to specialist doctors in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care with standards of medical care.
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For the formation of the above competencies within the discipline "Reproductive Health" the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training programs.
2. Conducting interactive role-playing games to develop the skills of presenting material on hygiene of sex and sexual life and skills of counseling patients.
3. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts, a lesson-conference.

The proportion of practical classes conducted in interactive forms is 26% of classroom time; independent extracurricular work - 63% of the time.

## ANNOTATION

The discipline "Sexual health of men and women" is intended for students studying under the educational program 30.05.01 "General Medicine".

The discipline is implemented in the 2nd year, is a variable discipline.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for preparing students were used.

The total labor intensity of the discipline is 72 hours, 2 credits.

The course program is based on the basic knowledge gained by students: ability for abstract thinking, analysis, synthesis (OK-1);

willingness to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies and taking into account the basic requirements of information security (OPK-1);

### **Goals and objectives of the discipline.**

#### **Course objective:**

Student uptake information about a person's psychosexual development, sexual health, the culture of intimate relationships, maintaining reproductive health through the prevention of sexually transmitted infections (STIs) and unwanted pregnancies; training a qualified specialist to promote knowledge about maintaining sexual and reproductive health.

#### **Discipline tasks:**

1. Teaching students anatomical and physiological features of the male and female body.
2. To instill the basics of hygiene of sex and sexual life
3. Give the concept of the basics of human sexual health
4. Familiarize yourself with modern methods of contraception.
5. Teach prevention of sexually transmitted diseases.
6. Familiarize yourself with the basics of marriage and family life

As a result of studying this discipline, students form the following general professional and professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
PC-4.3 Knows how to justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations with specialist doctors	<p><b>Knows</b> the volume of laboratory and instrumental examination of the patient, the need to refer the patient for consultations to specialist doctors in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account standards medical care.</p> <p><b>Can</b> justify the need and scope of laboratory and instrumental examination of the patient, the need to refer the patient for consultations to specialist doctors in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the</p>

	provision of medical care according to the standards of medical care.
	<b>Owens a skill</b> independent determination of the volume of laboratory and instrumental examination of the patient, the need to refer the patient for consultations to specialist doctors in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care with standards of medical care.

<b>Code and wording of competence</b>	<b>Stages of competence formation</b>	
ability and willingness to implement ethical and deontological principles in professional activities (GPC-4)	Knows	basic principles of ethics and deontology
	Can	ethically correct presentation of material on the basics of intimate hygiene and hygiene of sexual life
	owns	ethical and deontological principles in the presentation of sexual hygiene and the fundamentals of human sexual health
readiness for the medical use of drugs and other substances and their combinations in solving professional problems (OPK-8);	Knows	main contraceptives prescribed for the prevention of unwanted pregnancy
	Can	recommend modern effective methods of contraception
	owns	method of counseling on the choice of contraceptive method
the ability and readiness to implement a set of measures aimed at maintaining and strengthening health and including the formation of a healthy lifestyle, prevention of the occurrence and (or) spread of diseases, their early diagnosis, identification of the causes and conditions for their occurrence and development, as well as aimed at eliminating harmful effects on human health of environmental factors (PC-1);	Knows	anatomical and physiological features of the male and female body, the main sexually transmitted infections, methods of protection from unwanted pregnancy and sexual infections, the basics of sex hygiene and sexual life
	Can	recommend activities aimed at maintaining sexual health and preventing sexually transmitted infections
	owns	a methodology for implementing a set of measures aimed at maintaining sexual health, modern and effective protection against unwanted pregnancy, prevention of inflammatory diseases of the genital organs, methods of protection against sexually transmitted infections, including the formation of a healthy lifestyle, sexual culture and the rejection of bad habits

For the formation of the above competencies within the discipline "Sexual health of men and women", the following methods of active / interactive learning are used:

1. It is planned to conduct practical classes using computer training programs.
2. Conducting interactive role-playing games to develop the skills of presenting material on hygiene of sex and sexual life and skills of counseling patients.
3. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts, a lesson-conference.

The proportion of practical classes conducted in interactive forms is 26% of classroom time; independent extracurricular work - 63% of the time.

## ANNOTATION

The discipline "Elective courses in physical culture and sports" is intended for students enrolled in the educational program of higher education 31.05.01 "General Medicine", is an elective discipline, for 1, 2 and 3 courses in 2, 3, 4, 5, and 6 semesters. The total labor intensity of the discipline is 328 hours.

The course program is based on the basic knowledge gained by students in the secondary school

### **Goals and objectives of the discipline.**

**aim**the study of the discipline is the formation of the physical culture of the individual and the ability to use various means of physical culture, sports for the preservation and promotion of health, psychophysical training and self-training for future professional activities.

#### **Tasks:**

1. Formation of knowledge, skills and abilities based on the use of various means of motor activity (swimming, aerobics, martial arts, sports games (basketball)), creating conditions for students to realize their creative and individual abilities.

2. Development of physical qualities by various means of motor activity (swimming, aerobics, martial arts, sports games (basketball)), actualization of the individual vector of bodily development.

3. Education of socially significant qualities and the formation of needs for a variety of physical activity, the organization of a healthy lifestyle, for personal and social self-realization.

For the successful study of the discipline "Elective courses in physical culture and sports", students must have the following preliminary competencies:

- the ability to use the main forms and types of physical activity to organize a healthy lifestyle, active recreation and leisure;
- possession of general methods of strengthening and maintaining health, maintaining efficiency, preventing disease prevention.

As a result of studying this discipline, students form the following general

cultural competence:

The course program is based on the basic knowledge gained by students in the secondary school

The discipline "Elective courses in physical culture and sports" gives the student the right to choose one of four modules: swimming, aerobics, martial arts, sports games (basketball).

The academic discipline "Elective courses in physical culture and sports" is consistently connected with the following disciplines "Physical culture", "Life safety".

The main content of the discipline "Elective courses in physical culture and sports" are aspects of practical application various means of motor activity (swimming, aerobics, martial arts, sports games (basketball)) for the formation of a person's physical culture.

As a result of studying this discipline, students form the following universal competencies:

Name of the category (group) of universal competencies	Code and name of the universal competence (the result of mastering)	Code and name of the indicator of achievement of competence
Self-organization and self-development (including health saving:	UK-7 Able to maintain the proper level of physical fitness to ensure full-fledged social and professional activities	UK-7.1 Understands the role of physical culture and sports in modern society, in human life, preparing him for social and professional activities, the importance of physical culture and sports activity in the structure of a healthy lifestyle and the features of planning an optimal motor regimen, taking into account the conditions of future professional activity
		UK-7.2 Uses self-control methodology to determine the level of health and physical fitness in accordance with the regulatory requirements and conditions of future professional activity



		<p>UK-7.3</p> <p>Maintains the proper level of physical fitness to ensure full-fledged social and professional activities, regularly engaging in physical exercises</p>
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
<p>UK-7.1</p> <p>Understands the role of physical culture and sports in modern society, in human life, preparing him for social and professional activities, the importance of physical culture and sports activity in the structure of a healthy lifestyle and the features of planning an optimal motor regimen, taking into account the conditions of future professional activity</p>	<p><b>Knows</b>the importance of the role of physical culture and sports in modern society, in human life, preparing him for social and professional activities, the importance</p>
	<p><b>Can</b>organize independent physical education classes</p>
	<p><b>owns</b>motor mode planning skills, taking into account professional activities</p>
<p>UK-7.2</p> <p>Uses self-control methodology to determine the level of health and physical fitness in accordance with the regulatory requirements and conditions of future professional activity</p>	<p><b>Knows</b>means and methods of self-control to determine the level of health and physical fitness</p>
	<p><b>Can</b>apply the basic methods of self-control in the process of physical culture and sports</p>
	<p><b>owns</b>the ability to determine the state of health, the level of development of physical qualities and motor skills</p>
<p>UK-7.3</p> <p>Maintains the proper level of physical fitness to ensure full-fledged social and professional activities, regularly engaging in physical exercises</p>	<p><b>Knows</b>the main provisions of the theory and methodology of physical culture and sports</p>
	<p><b>Can</b>ensure the preservation and strengthening of individual health with the help of basic motor actions and basic sports</p>
	<p><b>owns</b>technologies for planning physical improvement and methods of practicing various types of motor activity</p>

## ANNOTATION

Discipline X-ray and radiation diagnostics is intended for students enrolled in the educational program of higher education 31.05.01 "General Medicine", is included in the variable part of the curriculum as an elective discipline, is implemented in the 3rd year in the 5th semester. The total labor intensity of the discipline is 108 hours, 3 credits.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education was used in the specialty 31.05.01 "General Medicine" (specialist training level).

The course program is based on the basic medical knowledge gained by specialists:

GPC-1 - readiness to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies and taking into account the basic requirements of information security;

GPC-7 - readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems

### **Goals and objectives of the discipline.**

**Target** the development of the academic discipline is the formation of students' professional knowledge on radiology, radiation diagnostics, the formation of the basis of clinical thinking among students, the professional skills of a reasonable, integrated use of imaging methods necessary for further education and professional activities in medical specialties; Knowledge of the basics of examination, diagnosis patients with various nosological forms required for subsequent independent medical activity.

### **Tasks.**

1. Preparation in the discipline of radiology, radiation diagnostics, which reveals in its sections the radiation methods for detecting the pathology of all organs and systems in patients in clinical practice.

2. Deepening and consolidating students' knowledge of the physical foundations of radiation diagnostics, technologies for obtaining x-ray and ultrasound images, as well as the mechanisms of the biological action of various types of radiation on tissue.

3. To systematize the existing knowledge and the formation of students' ideas about modern methods of radiation diagnostics. To develop the ability to rationally choose the method of radiological examination, examination of the patient by X-ray, echography, knowledge of the concepts and interpretation of the obtained data of X-ray and ultrasound in the diagnosis of common diseases and conditions.

4. Providing theoretical knowledge and practical skills, the breadth of a scientifically based approach to solving problems of radiology, radiation diagnostics.

5. Formation of students' skills in studying scientific literature and official statistical reviews on sections of the discipline, preparing reviews on modern scientific problems in the field of radiation diagnostics.

6. The combination of specific knowledge in the discipline of radiology, radiation diagnostics with methodological and interdisciplinary aspects, which makes it possible to form specialists with a broad outlook, able to perceive their professional activity as a means of solving a complex of medical, economic, moral, ethical and social problems.

To solve these problems, a course of thematic lectures, clinical reviews of patients, the development of modern diagnostic methods and methods of treatment are planned.

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of	PC-4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for

	<p>a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>conducting studies, the rules for interpreting their results</p>
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<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
<p>PC-4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results</p>	<p><b>Knows</b> methods of laboratory and instrumental research to assess the state of health, medical indications for research, must be performed taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease</p> <p><b>Can</b> draw up a plan for laboratory and instrumental studies to assess the state of health, medical indications for research, must be carried out taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease</p>

## ANNOTATION

The discipline "Modern Laboratory Technologies and Complexes" is intended for students enrolled in the educational program of higher education 31.05.01 "General Medicine", is included in the variable part of the curriculum as an elective discipline, is implemented in the 3rd year in the 5th semester. The total labor intensity of the discipline is 108 hours, 3 credits.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education was used in the specialty 31.05.01 "General Medicine" (specialist training level).

The course program is based on the basic knowledge gained by students:

GPC-1 - readiness to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies and taking into account the basic requirements of information security;

GPC-7 - readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems

### **Goals and objectives of the discipline.**

**aim** mastering the discipline is the formation of professional competencies in the field of knowledge of the discipline, which will allow the student to evaluate and identify deviations in biomaterial samples that occur during structural and functional disorders of the state and activity of various organs, tissues, body systems.

At the same time, the tasks of the discipline are:

- Knowledge of modern methods of laboratory examination of patients, their diagnostic capabilities;
- mastering the technique of collecting biological material for laboratory research
- knowledge of algorithms for laboratory diagnostics of various diseases in the clinic of internal diseases, pediatrics, and surgical pathology.

- the ability to interpret the results of laboratory tests, including taking into account the succession of outpatient, inpatient, laboratory, preoperative examinations;
- draw up a plan for laboratory examination, taking into account the characteristics of laboratory tests.
- Mastering the methods of bedside diagnostics using "dry chemistry"

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results	<b>Knows</b> methods of laboratory and instrumental research to assess the state of health, medical indications for research, must be performed taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease <b>Can</b> draw up a plan for laboratory and instrumental studies to assess the state of health, medical indications for research,

	must be carried out taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease
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To form the above competencies within the framework of the discipline "Modern laboratory technologies and complexes", the following methods of active / interactive learning are used: problematic lecture, discussion.

## ANNOTATION

The discipline "Clinical and laboratory diagnostics" is intended for students studying in the direction 31.05.01 "General Medicine" and is a variable discipline of choice. The discipline is implemented in the 5th year, in the 10th semester. The complexity of the discipline 2 credits, 72 hours.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for the training of specialists in the specialty 31.05.01 "General Medicine" dated 2016 were used.

The course program is based on the basic medical knowledge gained by students:

willingness to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies and taking into account the basic requirements of information security (OPK-1);

readiness to use the basic physicochemical, mathematical and other natural science concepts and methods in solving professional problems (OPK-7);

the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (OPK-9);

The study of the discipline is based on the knowledge acquired as a result of mastering the following disciplines of the PEP: "General Biochemistry", "Biology", "Anatomy", "Chemistry", "Biochemistry", "Normal Physiology", "Pharmacology", "Pathophysiology, clinical pathophysiology" .

The acquired knowledge and skills are necessary for mastering the disciplines "Biochemistry", "Forensic Medicine", "Hospital Surgery, Pediatric Surgery", "Hospital Therapy, Endocrinology", "Reproductive Health of Men and Women".

### **Goals and objectives of the discipline.**

**Targetto** form knowledge about the principles of laboratory diagnostics of pathological metabolic processes, detection and monitoring of various diseases, apply the acquired knowledge in solving clinical problems.



**Tasks:**

- familiarization with the range of laboratory methods, taking into account the organizational structure of health care institutions and the cost of research;
- familiarization with the qualitative possibilities of modern laboratory research, taking into account the sensitivity, specificity, allowable variation of methods;
- study of indications and contraindications for examinations;
- establishing the continuity of outpatient, inpatient, preoperative laboratory examinations;
- analysis of the possible causes of false results, distortions associated, among other things, with pharmacotherapy and improper preparation of the patient for the study (ensuring the pre-analytical stage);
- learning the rules of the pre-analytical stage. formation of skills of analytical work with information (educational, scientific, reference and other sources).

Upon completion of the course, the specialist must:

- know the diagnostic capabilities of laboratory tests, the rules for preparing the patient, collecting and storing biomaterial for their implementation, the methodology for conducting studies performed directly on the patient (gastric and duodenal sounding, functional tests);
- know about the principles of laboratory research, the diagnostic significance of laboratory methods
- be able to interpret the results of basic laboratory studies characterizing urgent conditions;
- perform a minimum of express studies, all activities of the pre-analytical stage.

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
PC-4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results	<b>Knows</b> methods of laboratory and instrumental research to assess the state of health, medical indications for research, must be performed taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease
	<b>Can</b> draw up a plan for laboratory and instrumental studies to assess the state of health, medical indications for research, must be carried out taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease

## ANNOTATION

Discipline "Molecular genetic technologies in medicine" is intended for students enrolled in the educational program of higher education 31.05.01 "General Medicine", is included in the variable part of the curriculum as an elective discipline, is implemented in the 5th year in the 10th semester. The total labor intensity of the discipline is 72 hours, 2 credits.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education was used in the specialty 31.05.01 "General Medicine" (specialist training level).

The course program is based on the basic medical knowledge gained by specialists.

The discipline is logically and meaningfully connected with such courses as "Biology", "Informatics, medical informatics", "Biology", "Biochemistry", "Histology, embryology, cytology", "Pharmacology", "Clinical and laboratory diagnostics", "Immunology".

### **Goals and objectives of the discipline.**

**Target** mastering the discipline: preparation of students for research activities related to the modeling of biomolecules, as well as complex molecular systems: complexes, solutions, interfaces

#### **Tasks:**

- 1) familiarization with modern achievements in the field of computer simulation of the dynamics of biomolecular objects and systems;
- 2) Training in working with modern databases, software packages for molecular modeling and molecular dynamics using high-performance computing systems
- 3) mastering modern methods of molecular modeling of biostructures.
- 4) readiness for professional operation of modern research equipment and instruments.

«Molecular genetic technologies in medicine» is an important discipline for the preparation of students of the direction 31.05.01 "Medicine". It is designed to expand the student's methodological arsenal and teach him how to use modern tools that

have appeared in the field of modern biology and medicine. Due to the rapid development of in silico experimental methods, it is necessary to develop the ability to apply these methods for the effective conduct of biochemical, pharmacological and medical research.

For the successful study of the discipline «Molecular genetic technologies in medicine» Students should have the following pre-competences:

GPC-7 - readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems;

PC-20 - readiness for the analysis and public presentation of medical information based on evidence-based medicine;

PC-21 - the ability to participate in scientific research;

PC-22 - readiness to participate in the introduction of new methods and techniques aimed at protecting the health of citizens.

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
PC-4.5 Knows the methods of laboratory and instrumental studies to assess the state of health, medical indications for conducting studies, the rules for interpreting their results	<b>Knows</b> methods of laboratory and instrumental research to assess the state of health, medical indications for research, must be performed taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease
	<b>Can</b> draw up a plan for laboratory and instrumental studies to assess the state of health, medical indications for research, must be carried out taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease

For the formation of the above competencies within the discipline «Molecular genetic technologies in medicine» The following methods of active/interactive learning are used: visualization lecture (2 hours), round table (6 hours).

## ANNOTATION

Discipline «Methodology of scientific research in medicine» is intended for students enrolled in the educational program 05/31/01 "General Medicine", is included in the variable part of the curriculum.

The discipline is implemented in the 6th year, B and C semester.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for the training of specialists in the specialty 31.05.01 "General Medicine" were used.

The total labor intensity of mastering the discipline is 4 credit units, 144 hours. The curriculum provides for 18 hours of lectures, 36 hours of practical training and independent work of the student - 90 hours, credit in the C semester.

Successful mastering of the discipline is provided by the "input" knowledge, skills and abilities that students receive when studying the following disciplines:

Philosophy (knowledge of the forms and methods of scientific knowledge, their evolution);

Bioethics (knowledge of moral and ethical standards, rules and principles of professional medical behavior, ethical foundations of modern medical legislation, knowledge of the main ethical documents of domestic and international professional medical associations);

Economics (ability to analyze economic problems);

History of medicine (knowledge of the history of the formation and development of medical science);

Physics, mathematics (knowledge of mathematical methods for solving intellectual problems and their application in medicine, the ability to make calculations based on the results of an experiment, to carry out elementary statistical processing of experimental data);

Informatics, medical informatics (knowledge of the theoretical foundations of informatics, collection, storage, search, processing, transformation, dissemination of information in medical and biological systems, the use of information computer

systems in medicine and healthcare, the ability to use educational, scientific, popular science literature, the Internet, knowledge of basic information transformation technologies).

In turn, the knowledge, skills and abilities acquired by students in the process of studying the discipline "Methodology of scientific research in medicine" can become the basis for the successful development of the following disciplines:

Epidemiology

Public health and healthcare

Evidence-based medicine.

In addition, the study of the discipline creates the basis for the subsequent implementation of the student's research work (R&D).

### **Goals and objectives of the discipline.**

**The purpose of studying the discipline** "Methodology of scientific research in medicine»is the formation in students of a system of basic knowledge, basic practical skills and abilities necessary for the implementation of research activities in the field of public health.

#### **Discipline tasks:**

1. Formation of knowledge about the essence of research activities and the features of its implementation in medicine and healthcare.

2. Formation of knowledge about modern technologies, methods and methods of organization (design) of scientific research in medicine and health care.

3. Formation of knowledge about the types of scientific literature, the principles of searching for scientific information, the main types of library catalogs and electronic databases of scientific literature (including foreign ones), teaching students how to search and analyze scientific literature using the resources of specialized (university) libraries, local electronic databases, the Internet and official statistical surveys.

4. Formation of knowledge about the bibliographic description of scientific sources, including electronic ones, the formation of skills in compiling a bibliographic description of various types of scientific literature.

5. Formation of knowledge about the types of abstracts, their structure, features of the abstract-review, methods of compression of the source text, stable turns used in abstracting, fixing the algorithm of actions when compiling a monographic and review abstract.

6. Formation of knowledge about the features of a scientific text on the example of a scientific article, formal requirements for the design of a scientific text, about the main ways of presenting numerical information (tables, diagrams), the principles of optimal choice of one of the methods.

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: research	PC-16 Capable and willing to analyze morbidity, disability and mortality rates to characterize the health of adults and adolescents	PC-16.1 Knows the medical and statistical indicators of morbidity, disability and mortality that characterize the health of the attached population, the procedure for their calculation and evaluation
		PC-16.2 Able to analyze data from official statistical reporting, including forms of federal and sectoral statistical observation
	PC-17 Ready to participate in the assessment of the quality of medical care using the main medical and statistical indicators	PC-17.2 Able to analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-16.1 Knows the medical and statistical indicators of morbidity, disability and	<b>Knows</b> medical and statistical indicators of morbidity, disability and mortality, characterizing the health of the attached population, the procedure for their calculation and evaluation



mortality that characterize the health of the attached population, the procedure for their calculation and evaluation	<b>Can</b> use statistical indicators of morbidity, disability and mortality that characterize the health of the attached population.
	<b>Owens a skill</b> calculation of statistical indicators of morbidity, disability and mortality, characterizing the health of the attached population
PC-16.2 Able to analyze data from official statistical reporting, including forms of federal and sectoral statistical observation	<b>Knows</b> forms of official statistical reporting, including federal and sectoral statistical observation
	<b>Can</b> use forms of official statistical reporting, including federal and sectoral statistical observation
	<b>owns</b> the skill of analyzing data from official statistical reporting, including federal and sectoral statistical observation
PC-17.2 Able to analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population	<b>Knows</b> the basics of organizing medical care in medical organizations providing medical care on an outpatient basis, including at home when a medical worker is called
	<b>Can</b> calculate the need for outpatient medical care in medical organizations providing outpatient medical care
	<b>Owens a skill</b> determining the need for outpatient medical care in medical organizations providing outpatient medical care, depending on the assigned population, epidemiological and other conditions.

## ANNOTATION

The discipline "Commercialization of scientific developments" is intended for students enrolled in the educational program 31.05.01 "Medicine", is included in the variable part of the curriculum.

The discipline is implemented in the 6th year, B and C semester.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for the training of specialists in the specialty 31.05.01 "General Medicine" were used.

The total labor intensity of mastering the discipline is 4 credit units, 144 hours. The curriculum provides for 18 hours of lectures, 36 hours of practical training and independent work of the student - 90 hours, credit in the C semester.

### **Goals and objectives of the discipline.**

**The purpose of studying the discipline** "Commercialization of scientific developments" is the formation of students' systemic understanding and professional competencies in the field of commercialization of the results of scientific and practical activities, competent presentation of their developments and the developments of colleagues in the market.

#### **Discipline tasks:**

- formation of knowledge for commercialization of scientific and practical developments;
  - formation of competencies for the competent presentation of their scientific and practical developments on the market;
  - study of the legal framework for the organization and management of scientific research;
  - mastering systems of scientific activity management;
  - familiarization with the methods and criteria for assessing the effectiveness of scientific research;
- mastering the evaluation and analysis of the effectiveness of an innovative project;

familiarization with the basics of patent research and patent-licensing work;  
 formation of skills for studying scientific literature and official statistical  
 reviews on the commercialization of scientific and practical developments.

As a result of studying this discipline, students form the following  
 professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: research	PC-16 Capable and willing to analyze morbidity, disability and mortality rates to characterize the health of adults and adolescents	PC-16.1 Knows the medical and statistical indicators of morbidity, disability and mortality that characterize the health of the attached population, the procedure for their calculation and evaluation
		PC-16.2 Able to analyze data from official statistical reporting, including forms of federal and sectoral statistical observation
	PC-17 Ready to participate in the assessment of the quality of medical care using the main medical and statistical indicators	PC-17.2 Able to analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
PC-16.1 Knows the medical and statistical indicators of morbidity, disability and mortality that characterize the health of the attached population, the procedure for their calculation and evaluation	<b>Knows</b> medical and statistical indicators of morbidity, disability and mortality, characterizing the health of the attached population, the procedure for their calculation and evaluation
	<b>Can</b> use statistical indicators of morbidity, disability and mortality that characterize the health of the attached population.
	<b>Owens a skill</b> calculation of statistical indicators of morbidity, disability and mortality, characterizing the health of the attached population
PC-16.2 Able to analyze data from	<b>Knows</b> forms of official statistical reporting, including federal and sectoral statistical observation

official statistical reporting, including forms of federal and sectoral statistical observation	<b>Can</b> use forms of official statistical reporting, including federal and sectoral statistical observation
PC-17.2 Able to analyze medical and statistical indicators of morbidity, disability and mortality to assess the health of the attached population	<b>owns</b> the skill of analyzing data from official statistical reporting, including federal and sectoral statistical observation
	<b>Knows</b> the basics of organizing medical care in medical organizations providing medical care on an outpatient basis, including at home when a medical worker is called
	<b>Can</b> calculate the need for outpatient medical care in medical organizations providing outpatient medical care
	<b>Owens a skill</b> determining the need for outpatient medical care in medical organizations providing outpatient medical care, depending on the assigned population, epidemiological and other conditions.

## ANNOTATION

The discipline "Neurosurgery" is intended for students enrolled in the educational program of higher education 31.05.01 "General Medicine", is an optional discipline of the curriculum, is implemented in the 4th year in the 8th semester. The total labor intensity of the discipline is 72 hours, 2 credits.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education was used in the specialty 31.05.01 "General Medicine" (specialist training level).

The course program is based on the basic medical knowledge gained by specialists:

OK1 - the ability and readiness to analyze socially significant problems and processes, to use in practice the methods of the humanities, natural sciences, biomedical and clinical sciences in various types of professional and social activities

OK5 - readiness for self-development, self-realization, self-education, use of creative potential.

GPC1 - readiness to solve standard tasks of professional activity using bibliographic resources, biomedical terminology, information and communication technologies, taking into account the basic requirements of information security.

GPC2 - readiness for communication in oral and written forms in Russian and foreign languages to solve the problems of professional activity

GPC4 - the ability and willingness to implement ethical and deontological principles in professional activities -

GPC7 - readiness to use basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems

GPC9 - the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems.

### **Goals and objectives of the discipline.**

**Target** mastering the discipline "Neurosurgery" consists in studying the main diseases of the nervous system requiring surgical treatment, acquiring the skills to build classifications, mastering the methodology for examining patients with

pathology of the nervous system with the interpretation of indicators of laboratory and instrumental methods for examining the structures of the nervous system, mastering the principles of making a neurological diagnosis (syndromic, topical, etiological) for the formation of clinical thinking of the future doctor.

**tasks**disciplines are:

- acquisition by students of knowledge of etiology, epidemiology, pathogenesis and risk factors of nervous diseases;
- teaching students the most important methods of objective examination, allowing timely diagnosis of damage to the nervous system;
- teaching students to recognize the clinical signs of neurosurgical pathology when examining a patient, in determining the severity of the course of the pathological process;
- teaching students the ability to identify the leading syndromes of nervous diseases;
- teaching students to choose the best methods of laboratory and instrumental examination in case of major neurological diseases and compiling an algorithm for differential diagnosis;
- training in carrying out a full range of therapeutic, rehabilitation and preventive measures among patients with various nosological forms of neurological diseases;
- teaching students to provide first aid to patients in case of emergency;
- teaching students to choose the optimal schemes for etiopathogenetic treatment of the most common diseases of the nervous system;
- familiarization of students with the principles of organization and work of medical institutions providing surgical care to patients with neurological pathology;
- formation of skills in studying scientific literature and official statistical reviews;
- formation of communication skills with a neurosurgical patient and his representatives, taking into account ethics and deontology, depending on the identified pathology and characterological characteristics of patients;
- formation of the student's communication skills with the team.

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-5 Capable of making a diagnosis based on the current International Statistical Classification of Diseases and Related Health Problems (ICD)	PC-5.1 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs
	PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-5.1 Knows the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of diseases of internal organs	<b>Knows</b> etiology, pathogenesis and pathomorphology, clinical picture, course features, complications and outcomes of diseases of internal organs
	<b>Can</b> formulate a clinical diagnosis, identify a number of diseases for differential diagnosis
	<b>Owns a skill</b> clinical diagnosis, differential diagnosis.
PC-6.1 Knows modern methods of using medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	<b>Knows</b> modern methods of using medicines, medical devices and clinical nutrition for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care
	<b>Can</b> draw up a plan for the use of medicines, medical devices and nutritional therapy for diseases and conditions in a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care

	<p><b>Owens a skill</b>self-administration of medicines, medical devices and clinical nutrition for diseases and conditions of a patient in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>
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## ANNOTATION

The discipline "Russian language (advanced course)" is intended for students studying under the educational program 31.05.01 "General Medicine", is included in the optional part of the curriculum.

The discipline is implemented in 3,4,5 courses, in 5,6,7,8,9,10 semesters.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine", the curriculum for the training of specialists in the specialty 31.05.01 "General Medicine" were used.

The total labor intensity of mastering the discipline is 7 credits, 252 hours. The curriculum provides for 162 hours of practical training and independent work of the student (90 hours).

A feature in the construction and content of the course is the use of active learning methods, software and hardware, a fund of methodological, evaluation and electronic means of discipline. This discipline is directly related to the disciplines "Russian language and culture of speech", is a continuation of the discipline "Foreign language (Russian)". The peculiarities of the course construction are the contingent of students with a basic level of Russian language proficiency.

The course program is based on the basic knowledge gained by specialists:

- Readiness for self-development, self-realization, self-education, use of creative potential (OK -5)
- Willingness to communicate in oral and written forms in Russian and foreign languages to solve the problems of professional activity (OPK-2);
- Readiness for educational activities to eliminate risk factors and the formation of healthy lifestyle skills (PC-16);
- Willingness to analyze and publicly present medical information based on evidence-based medicine (PC - 20).

**Goals and objectives of the discipline.**

**Purpose of the discipline-** the formation and development of communicative and speech competence of students, increasing the culture of speech of future specialists When realizing the practical goal of training - the formation of the ability and readiness of a future specialist for intercultural communication - there is a gradual and consistent strengthening of the professional and business orientation of training in accordance with the really necessary for future professional activity a specialist in the field of medicine with adequate skills in foreign language speech activity.

### **Tasks of the discipline**

- To acquaint students with the basic norms of the modern Russian language in its oral and written forms, the factors of successful speech behavior and methods for its improvement.
- To develop attention to violations of the norms of the literary language and the ability to correct them, as well as the desire to get rid of errors in one's own speech.
- Provide basic information about speech, its structural and functional qualities.
- Introduce students to the concept of functional style. To give an idea of the stylistic differentiation of the modern Russian literary language.
- To improve the skills of easy possession of the stylistic resources of the language based on the understanding of theoretical issues about the stylistic differentiation of language means of different levels (from phonetic to syntactic).
- Develop and improve the skills of producing texts of different styles and genres, texts for scientific and professional medical purposes.
- To develop the ability of students practicing in medical institutions to conduct a professional dialogue with the patient, to draw up the results of the questioning in the medical record, to work with the material in a hospital setting.
- To improve the skills of competent writing and speaking, to prepare students for communication with sick patients.

- To instill the skills and abilities of public speaking, conducting business conversations, negotiations, discussions.

As a result of studying this discipline, students form the following professional competencies:

Task type	Code and name of professional competence (the result of mastering)	Code and name of the indicator of achievement of competence
Type of tasks of professional activity: organizational and managerial	PC-19 Ready to maintain medical records, including in electronic form	PC-19.1 Knows the rules for issuing medical documentation in medical organizations that provide medical care on an outpatient basis, including at home when a medical worker is called
		PC-19.2 Knows the rules of work in information systems and information and telecommunications network "Internet"

Code and name of the indicator of achievement of competence	The name of the assessment indicator (the result of training in the discipline)
PC-19.1 Knows the rules for issuing medical documentation in medical organizations that provide medical care on an outpatient basis, including at home when a medical worker is called	<b>Knows</b> medical documentation in medical organizations providing medical care on an outpatient basis, including at home when a medical worker is called
	<b>Can</b> draw up medical documentation under control in medical organizations providing medical care on an outpatient basis, including at home when a medical worker is called
	<b>Owns a skill</b> registration of medical documentation in medical organizations providing medical care on an outpatient basis, including at home when a medical worker is called
PC-19.2 Knows the rules of work in information systems and information and telecommunications network "Internet"	<b>Knows</b> information resources of the Internet.
	<b>Can</b> work in the information environment of the Internet in compliance with the rules of information and anti-virus security.
	<b>Owns a skill</b> systematic work of the information environment. Internet in compliance with the rules of information and anti-virus security

## ANNOTATION

The discipline "Medical Genetics" is intended for students enrolled in the educational program of higher education 31.05.01 "General Medicine", is included in the optional part of the curriculum, is implemented in the 4th year in the 8th semester. The total labor intensity of the discipline is 36 hours, 1 credit unit.

When developing the working program of the academic discipline, the Federal State Educational Standard of Higher Education was used in the specialty 31.05.01 "General Medicine" (specialist training level).

The course program is based on the basic medical knowledge gained by students:

OK1 - the ability and readiness to analyze socially significant problems and processes, to use in practice the methods of the humanities, natural sciences, biomedical and clinical sciences in various types of professional and social activities

OK5 - readiness for self-development, self-realization, self-education, use of creative potential.

GPC1 - readiness to solve standard tasks of professional activity using bibliographic resources, biomedical terminology, information and communication technologies, taking into account the basic requirements of information security.

GPC2 - readiness for communication in oral and written forms in Russian and foreign languages to solve the problems of professional activity

GPC4 - the ability and willingness to implement ethical and deontological principles in professional activities -

GPC7 - readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems

GPC9 - the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems

The basic knowledge necessary to study the discipline is formed:

- in the cycle of humanitarian and socio-economic disciplines (bioethics; history of medicine; psychology, pedagogy; Latin; foreign language);

- in the cycle of mathematical, natural sciences, biomedical disciplines (physics and mathematics; medical informatics; chemistry; biology; biochemistry; human anatomy, topographic anatomy; histology, embryology, cytology; normal physiology; microbiology, virology; immunology, clinical immunology ; pharmacology; pathophysiology; pathological anatomy);

- in the cycle of medical professional and clinical disciplines (medical rehabilitation; hygiene; public health, health care, health economics; internal diseases, propaedeutics of internal diseases; general surgery, surgical diseases; radiation diagnostics, emergency medicine, life safety; infectious diseases; epidemiology; obstetrics, pediatrics).

### **Goals and objectives of the discipline.**

**Target** mastering the academic discipline "Medical Genetics" consists in studying the main hereditary diseases, acquiring the skills to build classifications, mastering the methodology for examining patients with hereditary pathology and interpreting the indicators of laboratory and instrumental examination methods, mastering the principles of making a diagnosis to form the clinical thinking of a future doctor.

**tasks** disciplines are:

- acquisition by students of knowledge of etiology, epidemiology, pathogenesis and risk factors of hereditary diseases;

- teaching students the most important methods of objective examination, allowing timely diagnosis of hereditary diseases;

-teaching students to recognize the clinical signs of hereditary pathology when examining a patient, in determining the severity of the course of the pathological process;

-teaching students the ability to identify the leading syndromes of hereditary diseases;

- teaching students to choose the best methods of laboratory and instrumental examination in case of major hereditary diseases and compiling an algorithm for differential diagnosis;

- training in carrying out a full range of therapeutic, rehabilitation and preventive measures among patients with various nosological forms of hereditary diseases;
- teaching students to provide first aid to patients in case of emergency;
- teaching students to choose the optimal schemes for etiopathogenetic treatment of the most common hereditary diseases;
- familiarization of students with the principles of organization and work of medical genetic counseling;
- formation of skills in studying scientific literature and official statistical reviews;
- formation of communication skills with a patient with a hereditary pathology and his representatives, taking into account ethics and deontology, depending on the identified pathology and the characterological characteristics of patients;
- formation of the student's communication skills with the team.

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-5. The ability to establish a diagnosis, taking into account the current international statistical classification of diseases of health problems (ICD).	PC-5.1 Know the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of hereditary diseases

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-5.1 Know the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications	Knows the etiology, pathogenesis, pathomorphology and clinical picture of the main hereditary syndromes and diseases
	Able to formulate a diagnosis of a hereditary disease based on the clinical picture, etiology, pathogenesis and pathomorphology, taking into account the classification

and outcomes of hereditary diseases	Owens the differential diagnosis of hereditary diseases on the basis of clinical manifestations, taking into account the etiology, pathogenesis, morphological changes.
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## ANNOTATION

The discipline "Oral and Maxillofacial and Plastic Surgery" is intended for students enrolled in the educational program 31.05.01 "General Medicine".

The total labor intensity of the discipline is 36 hours, 1 credit unit.

"Maxillofacial and plastic surgery" is an optional discipline, implemented in the 6th year and ends with a test.

The curriculum provides for lectures in the amount of 8 hours, practical classes - 16 hours, and hours for independent work - 12 hours.

The language of the program implementation is Russian.

The discipline "Maxillofacial Surgery" has a close relationship with such disciplines as "Anesthesiology, Resuscitation, Intensive Care", "Medicine of Disasters", "General Surgery", "Human Anatomy", "Pathological Anatomy", Pathological Physiology, "Safety vitality".

### **Goals and objectives of the discipline.**

#### **Course objective:**

Preparation of the student for the examination, diagnosis and treatment of patients with odontogenic inflammatory diseases, traumatic injuries, diseases of the salivary glands, the provision of surgical care to patients with defects and deformities of the tissues of the maxillofacial region, with diseases and neoplasms of the maxillofacial region.

#### **Tasks:**

1. The study of methods for examining patients with diseases, defects and deformations of the tissues of the maxillofacial region.
2. Study of the etiology, pathogenesis, clinical picture and diagnosis of diseases of the maxillofacial region.
3. Training in the preparation of a treatment plan for patients with diseases, defects and deformations of the tissues of the maxillofacial region in an outpatient setting



4. Formation of theoretical and practical skills in the surgical treatment of patients with various diseases of the maxillofacial region in a clinic and hospital.

Competencies of students, indicators of their achievement and learning outcomes in the discipline "Maxillofacial and plastic surgery".

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-4 Ready to collect and analyze the patient's complaints, his medical history, the results of a physical examination, laboratory, instrumental, post-mortem and other studies in order to recognize the condition or establish the presence or absence of a disease in accordance with the current procedures for providing medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care
	PC-5. The ability to establish a diagnosis, taking into account the current international statistical classification of diseases of health problems (ICD).	PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis
	PC-6 Able to develop a treatment plan for a disease or condition, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into	PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care

	account the standards of medical care	
	<p>PC-7 Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>	<p>PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
<p>PC-4.4 Knows how to prioritize the volume, content and sequence of diagnostic measures, taking into account the standards of medical care</p>	<p><b>Knows</b>the volume, content and sequence of diagnostic measures, taking into account the standards of medical care, in order to recognize the condition or establish the presence or absence of a disease of the maxillofacial region</p>
	<p><b>Can</b>determine the sequence of volume, content and sequence of diagnostic measures, taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease of the maxillofacial region</p>
	<p>Possesses the skill of independently determining the order, volume, content and sequence of diagnostic measures, taking into account the standards of medical care in order to recognize the condition or establish the presence or absence of a disease in the maxillofacial region</p>
<p>PC-5.4 Can use the International Statistical Classification of Diseases and Related Health</p>	<p><b>Knows</b>International Statistical Classification of Diseases and Related Health Problems (ICD) and a method for making a diagnosis using it.</p>
	<p><b>Can</b>apply the International Statistical Classification of Diseases and Related Health Problems (ICD) for diagnosis</p>

Problems (ICD) to make a diagnosis	<b>Owns a skill</b> self-application for diagnosis of the international statistical classification of diseases and related health problems (ICD)
PC-6.3 Able to draw up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care	<b>Knows</b> current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, standards of medical care for patients with diseases of the maxillofacial region
	<b>Can</b> draw up a treatment plan for the patient's diseases in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, standards of medical care for patients with diseases of the maxillofacial region
	<b>Owns a skill</b> drawing up a treatment plan for the disease and the patient's condition, taking into account the diagnosis, the age of the patient, the clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care for patients with diseases of the maxillofacial region
PC-7.2 Knows how to prescribe medicines, medical devices and nutritional therapy, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care	<b>Knows</b> current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care to patients with diseases of the maxillofacial region for the prescription of drugs, medical devices and clinical nutrition, taking into account the diagnosis, age and clinical picture of the disease.
	<b>Can</b> prescribe medicines, medical devices and medical nutrition to patients with diseases of the maxillofacial region, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account the standards of medical care
	<b>owns</b> the skill of self-administration of drugs, medical devices and nutritional therapy for patients with diseases of the maxillofacial region, taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care, taking into account standards medical care

For the formation of the above competencies within the discipline "Maxillofacial Surgery" the following methods of active learning are used:

1. It is planned to conduct practical classes using computer training programs.

2. Development of practical skills on dummies (palpation of the mammary glands, palpation of the lymph nodes in groups, dermatoscopy)
3. For the organization of independent work, it is proposed to prepare abstracts and reports for presentation in a group and at a student conference; as well as preparation for practical exercises, work with additional literature, preparation of abstracts, a lesson-conference.

The proportion of practical classes conducted in interactive forms is 10% of classroom time; independent extracurricular work - 33% of the time.

## ANNOTATION

The discipline "Preventive Medicine" is intended for students enrolled in the educational program 31.05.01 "General Medicine".

The total labor intensity of the discipline is 36 hours, 1 credit unit.

"Preventive medicine" is an optional discipline, implemented in the 6th year, semester C and ends with a test.

The curriculum provides for lectures in the amount of 8 hours, as well as allocated hours for independent work - 28 hours.

The language of the program implementation is Russian.

The discipline "Preventive Medicine" has a close connection with such disciplines as Biochemistry, Microbiology and Virology, Hygiene, Medical Rehabilitology.

### **Goals and objectives of the discipline.**

#### **Target:**

Studying the basics of organizing and conducting preventive activities aimed at improving and maintaining the health of the population.

#### **Tasks:**

1. study of the factorial conditionality of the health of the population, the role of lifestyle in the formation of indicators of the health of the population and systems that ensure the preservation, strengthening and restoration of the health of the population;

2. training in the choice of optimal schemes for the formation of a motivated attitude among the population to the preservation and strengthening of their health and the health of others, for the implementation of recommendations aimed at educating elements of a healthy lifestyle;

3. formation of skills in studying scientific literature and official statistical reviews.

As a result of studying this discipline, students form the following professional competencies:

<b>Task type</b>	<b>Code and name of professional competence (the result of mastering)</b>	<b>Code and name of the indicator of achievement of competence</b>
Type of tasks of professional activity: medical	PC-5. The ability to establish a diagnosis, taking into account the current international statistical classification of diseases of health problems (ICD).	PC-5.1 Know the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of hereditary diseases
	PC-13 Able and ready to conduct preventive medical examinations, medical examinations and follow-up of healthy and chronically ill patients	PC-13.7 Knows how to prescribe preventive measures to patients, taking into account risk factors for the prevention and early detection of diseases, including socially significant diseases

<b>Code and name of the indicator of achievement of competence</b>	<b>The name of the assessment indicator (the result of training in the discipline)</b>
PC-5.1 Know the etiology, pathogenesis and pathomorphology, clinical picture, differential diagnosis, course features, complications and outcomes of hereditary diseases	<b>Knows</b> etiology, pathogenesis and pathomorphology, clinical picture, course features, complications and outcomes of diseases of internal organs
	<b>Can</b> formulate a clinical diagnosis, identify a number of diseases for differential diagnosis
	<b>Owens a skill</b> clinical diagnosis, differential diagnosis.
PC-13.7 Knows how to prescribe preventive measures to patients, taking into account risk factors for the prevention and early detection of diseases, including socially significant diseases	<b>Knows</b> risk factors for the development and progression of major socially significant diseases
	<b>Can</b> identify risk factors for the development and progression of major socially significant diseases
	<b>Capable</b> independently identify risk factors and assess their impact on the development and progression of major socially significant diseases