



MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
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APPROVED
Director of the School of
Biomedicine
Yu.S. Khotimchenko
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Abstracts of working programs of the academic disciplines

SPECIALTY
31.05.01 General Medicine

Form of study: *full time*
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(full time study) *6 years*

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Annotations RPD General Medicine 2018 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", "History of medicine, bioethics, deontology".

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 general cultural (elements of competencies).

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|--|
| OK-1: the ability to use the foundations of philosophical knowledge to form a worldview position | Knows | the history of the development of the main directions of human thought. |
| | Can | make presentations and presentations, oral, written and virtual (placement in information networks) presentation of materials of their own research. |
| | owns | skills of participation in scientific discussions culture of thinking; the ability to perceive, analyze, summarize information, set goals and choose ways to achieve them. |
| OK-2: the ability to analyze the main stages of the historical development of society in order to form a civic position | Knows | the main stages of the historical development of human culture; the main laws of historical development. |
| | Can | analyze various historical types of worldviews; compare different historical types of thinking. |
| | owns | specific methodology and basic methods that allow solving a wide class of applied problems in the field of historical disciplines |
| OK-3: the ability to analyze the main stages and patterns of the historical development of society in order to form a civic position | Knows | names of prominent figures of national history, their contribution; - the most important achievements of culture and value systems, formed in the course of historical development |
| | Can | to transform information into knowledge, to comprehend the processes, events and phenomena in Russia and the world community in their dynamics and interconnection - to reasonably defend one's own position on various problems of history. |
| | owns | methods of conducting discussions and polemics. |

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 36 hours of lectures, practical classes (18 hours), independent work of the student (18 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 connection 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 general cultural competencies (elements of competencies)

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|---|
| OK-2 - the ability to use the foundations of philosophical knowledge to form a worldview position | Knows | Stages, driving forces of the historical process (world and domestic), their objectivity and regularity, |
| | Can | To pose a scientific problem, to substantiate its relevance; analyze political events and trends |
| | owns | General scientific methods in historical science, special historical methods, methods borrowed from other sciences; |
| OK-3- the ability to analyze the main stages and patterns of the historical development of society in order to form a civic position | Knows | The latest achievements of domestic and foreign historical science, debatable problems of history. |
| | Can | Work with historical sources; critically comprehend historical facts and events, overcome subjectivity and bias in their presentation, draw a conclusion and argue their own position based on the analysis of available information respect and care for the historical heritage and cultural traditions. |
| | owns | culture of thinking, the ability to generalize, analyze, perceive information, methods of conducting discussions and polemics. |

ANNOTATION

The discipline "History of Medicine, Bioethics, Deontology" is intended for students studying under the educational program of higher education 31.05.01 "Medicine", is included in the basic part of the curriculum, is implemented in the 2nd year in the 3rd and 4th semesters. 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 in the specialty 31.05.01 "Medicine" (specialist training level) was used.

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 for the formation of a civic position (OK-3);

The purpose 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 socio-cultural 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 domestic medicine through the direct transfer 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 general cultural / professional competencies (elements of competencies).

| Code and wording of competence | Stages of competence formation | |
|---|---------------------------------------|--|
| OK-8 readiness to work in a team, tolerantly perceive social, ethnic, confessional and cultural differences | Knows | Basic ethical documents of international and domestic professional medical associations and organizations |
| | Can | Competently and independently analyze and evaluate the socio-cultural situation in the world and Russia |
| | owns | Skills in presenting public speech, moral and ethical argumentation during speeches, correct discussion, polemics, dialogue and round tables |
| GPC-3 ability to use the basics of economic and legal knowledge in professional activities | Knows | Various methods of analysis of historical events, taking into account the impact of historical facts on the socio-political, legal and economic life of society |
| | Can | Compare and systematize legal and economic processes, events in Russia and the world community in their dynamics and interconnection, guided by the principles of scientific objectivity and historicism |
| | owns | Evaluation of individual legal and economic facts of Russian history in professional activities; evaluates various scientific positions on issues of professional activity from a legal and economic point of view |
| GPC-4 ability and willingness to implement ethical and | Knows | Moral and legal norms accepted in society; basic ideas, principles and requirements of bioethics, philosophical foundations of bioethics; the rights and |

| | | |
|---|------|---|
| deontological principles in professional activities | | moral obligations of the modern doctor; legal and moral rights of patients; laws and regulations governing ethical and deontological principles in professional activities |
| | Can | Use the provisions and categories of ethics and bioethics, legal norms, laws, moral rules adopted in society to study and analyze various trends, facts and phenomena in the healthcare system to review and analyze one's own life position, abilities, opportunities, self-realization. |
| | owns | The skills of forming one's own moral position based on knowledge of laws and legislative acts on the most important problems of modern medicine; public speaking skills. |

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 and Culture of Speech" 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 and culture of speech" has a close relationship with the following disciplines: "Latin language", "Foreign language"

The purpose 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 in the direction of training 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 general cultural and professional competencies (elements of competencies)

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|---|
| GPC-2 readiness for communication in oral and written forms in Russian and foreign languages to solve the problems of professional activity | Knows | basics of communication, principles and methods of organizing communication in Russian |
| | Can | create and edit texts for scientific and professional purposes; abstract and annotate information; create communication materials; organize the negotiation process, including using modern means of communication in Russian and foreign languages |
| | owns | business and public communication skills, basic grammatical structures of scientific and colloquial language |
| PC-16 readiness for educational activities to eliminate risk factors and the formation of healthy lifestyle skills | Knows | Possibilities of the Russian language for educational activities |
| | Can | Use the norms of the Russian language in public speaking for educational purposes |
| | owns | The skill of using the Russian language in public speaking for educational purposes |
| PC-20 willingness to analyze and publicly present medical information based on evidence-based medicine | Knows | Features of preparation for the public presentation of medical information using sources in Russian |
| | Can | Prepare and present medical information using sources in Russian |
| | owns | The skill of preparing and publicly presenting medical information using sources in Russian |

ANNOTATION

The discipline "Latin" 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 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"

The purpose 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:

- 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 contribute to the increase and strengthening 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)

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|---|
| GPC-2 readiness for communication in oral and written forms in Russian and foreign languages to solve the problems of professional activity | Knows | information about the communicative qualities of speech (correctness, accuracy, consistency, purity, relevance, clarity, expressiveness and richness of speech), about the basics of rhetoric. |
| | Can | to select language means for effective communication that correspond to the norms of the modern Latin literary language at all levels of the language structure; write an effective rhetorical statement. |
| | owns | skills to apply the acquired theoretical knowledge in real communication |
| OPK-6 willingness to maintain medical records | Knows | The scope of the Latin language in medical records |
| | Can | Use the Latin language for maintaining medical records within the limits provided for by regulatory enactments |
| | owns | The skill of using the Latin language in the designation of anatomical formations, nosological units of diseases, drugs. |

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".

The purpose and objectives of the discipline:

aim teaching the discipline "Foreign Language" is the acquisition by students of communicative competence, which allows the use of a foreign language in professional, socio-cultural and self-educational activities.

Learning objectives:

- improvement and systematization of the knowledge and skills acquired in secondary school 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 general cultural and professional competencies (elements of competencies)

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|---|
| OK-5 readiness for self-development, self-realization, self-education, use of creative potential | Knows | The importance of foreign language proficiency for the development of creative potential |
| | Can | Use knowledge of a foreign language to develop communication skills, exchange of ideas, self-development. |
| | owns | The skill of regular use of knowledge of a foreign language for communication, exchange of ideas, self-development. |
| GPC-2 readiness for communication in oral and written forms in Russian and foreign languages to solve the problems of professional activity | Knows | information about the communicative qualities of speech (correctness, accuracy, consistency, purity, relevance, clarity, expressiveness and richness of speech), about the basics of rhetoric. |
| | Can | to select language means for effective communication that correspond to the norms of the modern English literary language at all levels of the language structure; write an effective rhetorical statement. |
| | owns | skills to apply the acquired theoretical knowledge in real communication |
| PC-20 readiness for the analysis and public presentation of medical information based on evidence-based medicine | Knows | Features of preparation for the public presentation of medical information using sources in a foreign language |
| | Can | Prepare and present medical information using foreign language sources |
| | owns | The skill of preparing and publicly presenting medical information using sources in a foreign language |

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 which 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 general professional competencies:

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|--|
| OPK -3 - the ability to use the basics of economic and legal knowledge in professional activities | Knows | the conceptual apparatus of the main branches of Russian law; the provisions of the current Russian legislation regulating certain aspects of legal relations; the importance of studying and applying the acquired legal knowledge in professional activities on the territory of the Russian Federation. |
| | Can | correctly interpret the regulatory legal acts of the Russian Federation and apply them in their professional activities carried out on the territory of the Russian Federation |
| | owns | practical skills in the analysis of various legal phenomena, legal facts, as well as the application of the rules of law in order to carry out professional activities on the territory of the Russian Federation |

For the formation of the above competencies within the framework of the discipline "Jurisprudence" the following methods of active learning are used: problem lecture, lecture-conversation, lecture-discussion.

ANNOTATION

The discipline «Health and 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 8 hours of lectures, 10 hours of practical training and independent work of the student (54 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 general professional and professional competencies:

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|--|
| willingness to use first aid techniques, methods of protection in emergency situations (OK-7); | Knows | first aid techniques, methods of protection in emergency situations |
| | Can | apply knowledge of first aid techniques, methods of protection in emergency situations. |
| | owns | the basics of first aid, methods of protection in emergency situations |
| readiness to ensure the organization of patient care and the provision of primary pre-medical health care (OPK-10); | Knows | questions organization of patient care and provision of primary pre-medical health care |
| | Can | render organize patient care and provide primary pre-medical health care |
| | owns | technique organization of patient care and provision of primary pre-medical health care |
| readiness to participate in the provision of emergency medical care in conditions requiring urgent medical intervention (PC-11) | Knows | order of rendering emergency medical care for conditions requiring urgent medical intervention |
| | Can | provide emergency medical care in conditions requiring urgent medical intervention |
| | owns | skills in providing emergency medical care in conditions requiring urgent medical intervention |
| readiness to participate in the provision of medical care in emergency situations, including participation in medical evacuation (PC-13) | Knows | the basics of first aid in emergency situations, including at the stages of medical evacuation |
| | Can | determine the indications and draw up a plan for first aid in various pathological conditions in emergency situations, including at the stages of medical evacuation. |
| | owns | the skills of prescribing and conducting the necessary first aid for various pathological conditions in emergency situations, including at the stages of medical evacuation. |
| ability to organize medical care in emergency situations, including medical evacuation (PC-19) | Knows | the basics of organizing medical care in emergency situations, including medical evacuation |
| | Can | organize the provision of medical care in emergency situations, including medical evacuation |
| | owns | skills in organizing medical care in emergency situations, including medical evacuation |

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 and sports" 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 general cultural competence:

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|--|
| OK-6 the ability to use the methods and means of physical culture to ensure full-fledged social and professional activities | Knows | General theoretical aspects of physical culture, the importance of physical education in personal and professional development. |
| | Can | Use the means and methods of physical culture to maintain and improve health, improve performance. |
| | owns | Traditional forms and types of physical activity for the maintenance and development of physical abilities and the formation of motivation for motor activity. |

ANNOTATION

The discipline "Medical Informatics, Mathematics" 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 4 credits, 144 hours. The curriculum provides for 18 hours of lectures, laboratory work (36 hours), practical classes (18 hours) and independent work of the student (72 hours), including the exam (27 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 general professional competencies (elements of competencies).

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|---|
| OPK-1willingness 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 | Knows | basics of working on personal computers |
| | Can | use software packages to collect and store information |
| | owns | modern specialized software designed for processing experimental data and clinical diagnostic data of biochemical, molecular biological, immunological and medical genetic studies. |
| OPK-7readiness to use the basic physical, chemical, | Knows | methodology of a systematic approach used in biomedical research |

| | | |
|--|-------|---|
| mathematical and other natural science concepts and methods in solving professional problems | Can | use in their professional activities the acquired knowledge and skills in fundamental natural sciences, biomedical, clinical and special (including biochemical) disciplines. |
| | owns | tools of probability theory and mathematical statistics used in the analysis of experimental data |
| OK-1 ability for abstract thinking, analysis, synthesis | Knows | modern methods of collecting and processing medical information |
| | Can | Collect and use computer programs to analyze medical information |
| | owns | Skills in collecting and processing medical information using computer programs |

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 "General and Medical Chemistry" is necessary for the subsequent study of such disciplines as "Pharmacology", "Medical Biotechnology" and "Biochemistry".

The purpose 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 professional competencies (elements of competencies).

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|---|
| GPC-7 readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems | Knows | Basic chemical and physico-chemical concepts and methods used in solving professional problems |
| | Can | Apply chemical and physico-chemical methods in solving professional problems |
| | owns | The conceptual apparatus and skills of performing basic chemical and physico-chemical methods in solving professional problems. |
| GPC-9 ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems | Knows | Chemical and physico-chemical factors underlying pathological processes in the human body. |
| | Can | Apply chemical and physico-chemical concepts and methods in the assessment of morphofunctional, physiological conditions and pathological processes in the human body |
| | owns | General methods for assessing conditions and processes in the human body associated with various chemical and physico-chemical factors |

For the formation of the above competencies within the discipline "General and Medical 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 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:

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|---|
| readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems (OPK-7) | Knows | main metabolic pathways of amino acids, proteins, carbohydrates, lipids, nucleotides, nucleic acids and the main disorders of their metabolism in the human body |
| | Can | evaluate the information content of various biochemical determinations for blood and urine tests in certain pathological conditions (diabetes mellitus, pathology of the liver, kidneys, heart) |
| | owns | skills for solving biochemical and professional problems. |
| the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (OPK-9) | Knows | principles of biochemical analysis and clinical and biochemical laboratory diagnosis of diseases |
| | Can | use measuring equipment when performing biochemical studies |
| | owns | the skills of making a preliminary diagnosis based on the results of a laboratory examination of patients |

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 basic part of the curriculum (B1.B.07).

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 (36 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 bridge between school biological training and the upcoming development of the entire complex of modern biomedical 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.

The purpose 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.
2. Be able to logically and competently formulate your thoughts using special terms, the ability to build coherent, 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.

3. 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 professional competencies (elements of competencies):

| Code and wording of competence | Stages of competence formation | |
|---|---------------------------------------|--|
| GPC-7 (readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems) | Knows | fundamental principles of organization and functioning of living systems in general and the human body in particular |
| | Can | 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. |
| | owns | - understanding the biological essence of medical problems and ideas about modern methods of biomedical research; - the general methodology of natural science and biomedical research: owns the basic principles of observational, experimental, comparative-analytical approaches |
| GPC-9 (ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems) | Knows | fundamental causes and patterns of development of diseases in the human body from the standpoint of basic physical, chemical and biological principles |
| | Can | use knowledge about the molecular and cellular organization of living systems to assess the functional state of the body, including in the diagnosis of pathological processes |
| | owns | skills in analyzing 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 540 hours (252 hours of classroom work, 282 hours of SIW, 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 subject's Pathological anatomy, all clinical disciplines related to the diagnosis and treatment of patients.

The purpose 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 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 and professional competencies:

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|--|
| OPK-9 the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems | Knows | - methods of anatomical research and anatomical terms (Russian and Latin); -general laws of the structure of the human body, structural and functional relationships of parts of the body; -traditional and modern methods of anatomical research; - anatomical and topographic relationships of organs and parts of the body in an adult, children and adolescents; - basic details of the structure and topography of organs, their systems, their main functions in different age periods; - possible variants of the structure, the main anomalies and malformations of organs and their systems. |
| | Can | - find and show on anatomical preparations organs, their parts, details of the structure; - navigate in the topography and details of the structure of organs on anatomical preparations; -correctly name organs and their parts in Russian and Latin; - find and show organs and the main details of their structure on x-rays; - 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 |
| | owns | - 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

The academic discipline "Histology, Cytology, Embryology" is 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 used Federal 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 complexity of the discipline is 288 hours (8 credits), 180 hours - classroom work, of which 7254 hours - lectures, 108 hours - practical classes, 126 hours - independent work of students, of which 54 hours - control over independent work of students.

The discipline "Histology, Cytology, Embryology" 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.

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, Embryology" serves 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.

The purpose 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:

- used Federal patterns of development and the vital activity 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;
- skills building 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» Students should have the following prerequisite 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):

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|--|
| GPC-9 ability to assess morphofunctional, | Knows | The main patterns of development and vital activity of the body based on the structural organization of cells, |

| | | |
|--|------|--|
| physiological conditions and pathological processes in the human body to solve professional problems | | tissues and building analytical 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. |
| | Can | Give a biophysiological assessment various cellular, tissue and organ structures, analyze pathological processes in the human body |
| | owns | The ability to compare morphological changes in normal and pathological conditions |

ANNOTATION

The working program of the discipline "Normal Physiology" was developed for students in the direction 05/31/01 "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 on the 1st and 2nd courses in the 2nd and 3rd 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.

The purpose and objectives of the discipline:

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 professional competencies:

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|--|
| - the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems | Knows | <ul style="list-style-type: none"> • patterns of functioning of individual organs and systems under normal conditions • changes that occur in the body in the process of growth and aging, age-related physiological characteristics of the body |
| | Can | <ul style="list-style-type: none"> • use the basic methods for assessing the functional state of the human body • explain the nature of physiological changes in the course of adaptive activity to changing environmental conditions |
| | owns | <ul style="list-style-type: none"> • medical and physiological conceptual apparatus • skills in assessing the physiological parameters of the work of functional systems and human organs |

| | | |
|--|--|--|
| | | <ul style="list-style-type: none">• the skills of determining the psychotype of a person |
|--|--|--|

For the formation of the above competencies within the discipline "Normal 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 "Pathological Anatomy" is intended for 3rd year students studying in the direction 31.05.01 "General Medicine" and is a mandatory discipline of the basic part of the mathematical and natural science cycle. The labor intensity of the discipline is 8 credits, 288 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".

The purpose and objectives of the discipline:

Target mastering the discipline "Pathological anatomy, clinical 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 anatomy, clinical pathological 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 general cultural/professional competencies (elements of competencies).

| Code and wording of competence | Stages of competence formation |
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| <p>OPK-5 the ability and willingness to analyze the results of their own activities to prevent professional errors</p> | <p>Knows</p> | <p>etiology, pathogenesis, diagnosis, treatment and prevention of the most common diseases; clinical picture, course features and possible complications of the most common diseases occurring in a typical form; 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</p> |
| | <p>Can</p> | <p>collect a complete medical history of the patient, 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; interpret the results of the examination, make a preliminary diagnosis to the patient, outline the scope of additional studies to clarify the diagnosis; formulate 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 case of emergency victims in the lesions in emergency situations; determine the presence of a fracture and dislocation, free gas in the abdominal cavity by radiograph; hydrothorax and pneumothorax, etc.</p> |
| | <p>owns</p> | <p>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; an algorithm for making a detailed clinical diagnosis for patients; algorithm for the implementation of basic medical diagnostic and therapeutic measures for providing first aid to victims of urgent and life-threatening conditions.</p> |

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| <p>PC-6 the ability to determine the patient's main pathological conditions, symptoms, syndromes of diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Problems Related to health, X revision</p> | Knows | <p>safety regulations and work in physical, chemical, biological laboratories with reagents, instruments, animals; the physical foundations of the functioning of medical equipment, the design and purpose of medical equipment; methods of microbiological diagnostics, the use of basic antibacterial, antiviral and biological preparations; the basic patterns of development and vital activity of the organism based on the structural organization of cells, tissues and organs; misfunctioned features of tissue elements, methods for their study; structure, topography and development of cells, tissues, organs and systems of the body in interaction with their function in normal and pathological conditions, features of the organismic and population levels of life organization</p> |
| | can | <p>use physical, chemical and biological equipment; work with magnifying equipment (microscopes, optical and simple magnifiers); make calculations based on the results of the experiment, perform elementary statistical processing of experimental data; give a biophysiological assessment of the state of various cellular, tissue and organ structures; describe the morphological changes in the studied macroscopic, microscopic preparations and electron diffraction patterns; interpret the results of the most common methods of functional diagnostics used to detect pathologies of the blood, heart and blood vessels, lungs, kidneys, liver and other organs and systems; determine and evaluate the results of electrocardiography; spirometry; thermometry; hematological parameters; to distinguish in the blood serum the normal values of the levels of metabolites (glucose, urea, bilirubin, uric acid, lactic and pyruvic acids, etc.) from pathologically altered ones, read the proteinogram and explain the reasons for the differences; interpret the data of enzymological studies of blood serum; to diagnose pathogens of human parasitic diseases on the preparation, slide, photos; conduct microbiological and immunological diagnostics;</p> |
| | owns | <p>the concept of limitations in reliability and the specifics of the most common laboratory tests; medical and anatomical conceptual apparatus; skills of microscopy and analysis of histological preparations and electron micrographs; the skills of making a preliminary diagnosis based on the results of biochemical studies of human biological fluids; the skill of comparing the morphological and clinical manifestations of diseases</p> |
| <p>OPK-9 ability</p> | Knows | <p>general patterns of origin and development of life, anthropogenesis and ontogenesis of man; the basic patterns of</p> |

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| <p>to the assessment of morphofunctional, physiological conditions and pathological processes in the human body to solve professional tasks</p> | | <p>development and vital activity of the organism based on the structural organization of cells, tissues and organs; anatomical and physiological, age-sexual and individual characteristics of the structure and development of a healthy and sick organism; concepts of etiology, pathogenesis, morphogenesis, pathomorphosis of the disease, nosology, principles of classification of diseases, basic concepts of general nosology; functional systems of the human body, their regulation and self-regulation when exposed to the external environment in normal and pathological conditions; structural and functional foundations of diseases and pathological processes, causes, basic mechanisms of development and outcomes of typical pathological processes, disorders</p> <p>functions of organs and systems</p> |
| | <p>can</p> | <p>palpate the main bone landmarks on a person, outline topographic contours</p> <p>organs and main vascular and nerve trunks;</p> <p>explain the nature of deviations in the course of development, which can lead to the formation of variants of anomalies and defects; interpret the results of the most common methods of functional diagnostics used to detect pathologies of the blood, heart and blood vessels, lungs, kidneys, liver and other organs and systems; determine and evaluate the results of electrocardiography; spirometry; thermometry; hematological parameters; to distinguish in the blood serum the normal values of the levels of metabolites (glucose, urea, bilirubin, uric acid, lactic and pyruvic acids, etc.) from pathologically altered ones, read the proteinogram and explain the reasons for the differences; interpret the data of enzymological studies of blood serum.</p> |
| | <p>owns</p> | <p>medical and anatomical conceptual apparatus;</p> <p>the simplest medical instruments (phonendoscope, spatula, neurological hammer, scalpel, tweezers, probe, clamp, expander, etc.);</p> <p>the skill of comparing the morphological and clinical manifestations of diseases; methods of clinical and anatomical analysis of the autopsy, the study of biopsy and surgical material</p> |

ANNOTATION

The discipline "Pathological Physiology" is intended for students enrolled in the educational program 31.05.01 "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 288 hours, 8 credits, of which lectures - 36 hours, practical classes - 126 hours, independent work - 126 hours (exam - 81 hours).

The purpose 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:

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

- 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 general professional competencies:

| Code and wording competencies | Stages of competence formation | |
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| OPK-5 the ability and willingness to analyze the results of their own activities to prevent professional errors | Knows | Basic concepts of general nosology. Causes, mechanisms and main manifestations of typical disorders of organs and physiological systems of the body. |
| | Can | Use educational, scientific, popular science literature, the Internet for professional activities. To solve the professional tasks of a doctor based on a pathophysiological analysis of specific data on pathological processes, conditions, reactions and diseases. Apply the acquired knowledge in the study of clinical disciplines in the subsequent treatment and prevention activities. Analyze the problems of general pathology and critically evaluate modern theoretical concepts and trends in medicine. Solve Situational problems of various types. |
| | owns | Medico-anatomical conceptual apparatus. The principles of evidence-based medicine based on the search for solutions using theoretical knowledge and practical skills. |
| OPK-7 readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems | Knows | Basic concepts of general nosology. The role of the causes, conditions, reactivity of the organism in the occurrence, development and completion (outcome) of diseases. |
| | Can | Conduct a pathophysiological analysis of clinical, laboratory, experimental, and other data and formulate, based on them, a conclusion about the most likely causes and mechanisms for the development of pathological processes (diseases), |
| | owns | The main methods for assessing the functional state of the human body, the skills of analyzing and interpreting the results of modern diagnostic technologies. |
| OPK-9 the ability to assess morphofunctional, | Knows | Causes and mechanisms of typical pathological processes of states and reactions, their manifestations and significance for the body in |

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| physiological conditions and pathological processes in the human body to solve professional problems | | the development of various diseases. Etiology, pathogenesis, manifestations and outcomes of the most common forms of pathology of organs and physiological systems, principles of their etiological and pathogenetic therapy |
| | Can | Use the principles and methods for identifying pathological processes (diseases), treating and preventing them. Interpret the results of the most common diagnostic methods. |
| | owns | The skills of analyzing the patterns of functioning of individual organs and systems in normal and pathological conditions. The skills of pathophysiological analysis of clinical syndromes, to substantiate pathogenetic methods (principles) of diagnosis, treatment, rehabilitation and prevention of diseases. |

ANNOTATION

The discipline "Immunology" 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 2nd year, 3rd semester, is the basic 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 108 hours, 3 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:

Course objective: 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 genetics, 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.

| Code and wording of competence | Stages of competence formation | |
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| 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 | Knows | capable 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 |
| | Can | capable 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 |
| | owns | 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; | Knows | and is ready for educational activities to eliminate risk factors and develop healthy lifestyle habits; |
| | Can | and is ready for educational activities to eliminate risk factors and develop healthy lifestyle habits; |

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| | owns | readiness for educational activities to eliminate risk factors and the formation of healthy lifestyle skills; |
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ANNOTATION

The discipline "Microbiology, 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. The total labor intensity of mastering 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", the curriculum for the training of specialists in the specialty 31.05.01 "General Medicine" were used.

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

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

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 of environmental factors on human health (PC-1);

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, 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 course:

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).

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

- the 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-3);

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

| Code and wording of competence | Stages of competence formation | |
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| PC-3 - the ability and readiness to carry out anti-epidemic measures, organize the protection of the population in the foci of especially dangerous infections, in case of deterioration of the radiation situation, natural disasters and other emergencies. | Knows | Types of anti-epidemic measures, techniques and methods for protecting the population in foci of especially dangerous infections in case of deterioration of the radiation situation and other emergencies. |
| | Can | assess the degree of danger in the development of anti-epidemic measures, techniques and methods for protecting the population in the foci of especially dangerous infections in the event of a deterioration in the radiation situation and other emergencies to solve professional problems |
| | owns | Organizational skills in foci of especially dangerous infections, in case of worsening radiation conditions, natural disasters and other emergencies |
| PC-16 readiness for educational activities to eliminate risk factors and develop healthy lifestyle skills | Knows | Virulence factors of a microorganism, their role in the development of the pathological process |
| | Can | 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. |
| | owns | Skills to ensure safety and protection against pathogenic and opportunistic microorganisms |

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);

The purpose 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 of the discipline: teach students

- 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 infections 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 and professional competencies:

| Code and wording of competence | Stages of competence formation | |
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| readiness for the use of medical devices provided for by the procedures for the provision of medical care (OPK-11). | Knows | Rules of asepsis in the implementation of medical activities, stages of treatment of surgical patients. |
| | Can | Put on and change sterile gloves, a sterile gown independently and with the help of an operating nurse. Carry out preoperative processing and processing of the surgical field. |
| | owns | The technique of treating the hands of the surgeon and the surgical field with disinfectant solutions before the operation. |
| 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); | Knows | General principles of clinical examination of a surgical patient. Clinical manifestations of the main surgical syndromes. Diagnostic possibilities of laboratory and instrumental methods of examination of surgical patients. |
| | Can | Interrogate and examine the patient using laboratory, instrumental, pathological and other research methods |
| | owns | Skill in conducting examination of a surgical patient and filling out medical documentation |
| the ability to determine the tactics of managing patients | Knows | Patterns of the course of the pathological process in surgical infection, trauma, blood loss. |

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| with various nosological forms (PC-8); | Can | Identify the main symptoms and syndromes common to surgical diseases, draw a conclusion about the nature of the pathological process and draw up a plan for examination and treatment of the identified surgical pathology |
| | owns | Methods for identifying the main symptoms and syndromes of surgical diseases, skills in working with reference books, educational literature and other medical information sources |
| 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); | Knows | The main stages of treatment of patients with the most common types of surgical diseases, the basics of the activities of medical staff at all stages of the treatment of surgical patients. |
| | Can | identify clinical signs of a surgical infection, select a method of wound treatment taking into account the phase of the wound process, select instruments for conducting PST, provide assistance in pathological processes and soft tissue injuries, fractures and dislocations, provide first aid for surgical diseases that do not require emergency medical care. |
| | owns | Methods of instrumental dressing of wounds, the imposition of drainage systems in the treatment of wounds, transport immobilization for fractures and dislocations, first aid for thermal injury, feeding patients through gastrostomy and enterostomy. |
| readiness to participate in the provision of emergency medical care in conditions requiring urgent medical intervention (PC-11); | Knows | Principles and methods of providing first medical aid in case of urgent and life-threatening conditions, in the centers of mass destruction, to carry out medical and evacuation measures in emergency situations. |
| | Can | Determine the severity of the patient's condition, the severity of blood loss, determine the indications for infusion-transfusion therapy, for blood transfusion, conduct all tests before blood transfusion, restore airway patency, conduct cardiopulmonary resuscitation with blood transfusion, |
| | owns | methods of temporarily stopping external bleeding, the technique of applying bandages and kerchief dressings, performing transport immobilization in case of fractures and dislocations, performing CPR on simulators |

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):

- analysis of real clinical situations (case-study);
- solution of clinical situational problems (case-study);
- use of interactive atlases on surgical diseases.
- 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 in the 6th and 7th semesters, it is the basic discipline. 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", the curriculum for preparing students were used.

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);

The purpose and objectives of the discipline:

Target:

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 and professional competencies:

| Code and wording of competence | Stages of competence formation | |
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| the ability and willingness to analyze the results of their own activities to prevent professional errors (GPC-5); | Knows | Fundamentals of systematization and analysis of data in accordance with the knowledge obtained in the subject of topographic anatomy and operative surgery |
| | Can | Analyze the results of your own activities to prevent professional mistakes based on the knowledge gained in the subject |
| | owns | The method of analyzing the results of one's own activities to prevent professional mistakes based on the knowledge gained in the subject |
| the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (OPK-9); | Knows | Fundamentals of the structure and functioning of organs and systems of the human body for solving professional problems |
| | Can | Determine the localization of the organs of the human body and the most important anatomical formations for solving professional problems |
| | owns | Methods for examining a patient, determining the localization of organs of the human body, methods for studying the main physiological functions for solving professional problems |
| the ability to determine the tactics of managing patients with various nosological forms (PC-8); | Knows | Fundamentals of management tactics for patients with various nosological forms |
| | Can | Use educational and scientific literature to address issues of determining the tactics of managing patients with various nosological forms |
| | owns | The ability to determine the tactics of managing patients with various nosological forms based on scientific and educational medical literature |

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);

The purpose and objectives of the discipline:

Aim Interintestinal the discipline "Faculty Surgery, Urology" is: the formation of students' basic knowledge and skills that allow them to diagnosis, test 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 professional competencies.

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|---|
| 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) | Knows | General principles of clinical examination of a surgical and urological patient. Clinical manifestations and features of the course of the main surgical and urological syndromes. Diagnostic possibilities of laboratory and instrumental methods of examination of surgical and urological patients. |
| | Can | Interrogate and examine the patient using laboratory, instrumental, pathological and other research methods. Assess the patient's condition to make a decision on the need to provide him with medical care; |
| | owns | The skill of examining a surgical and urological patient and filling out medical documentation, interpreting the results of laboratory, instrumental diagnostic methods, making a preliminary diagnosis |
| 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-6); | Knows | The main symptoms and syndromes, the main nosological forms of surgical and urological diseases, the International Statistical Classification of Diseases and Related Health Problems X revision, the algorithm for determining nosological forms in accordance with this classification. |
| | Can | Formulate a clinical diagnosis; make a preliminary diagnosis - synthesize information about the patient in order to determine the pathology and the causes that cause it; use the International Statistical Classification of Diseases and Related Health Problems of the 10th revision to classify identified symptoms and syndromes, the main nosological forms of surgical and urological diseases |

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| | owns | skill formation of a clinical diagnosis; setting a preliminary diagnosis - the synthesis of information about the patient in order to determine the pathology and the causes that cause it; use of the International Statistical Classification of Diseases and Related Health Problems X revision for the classification of identified symptoms and syndromes, the main nosological forms of surgical and urological diseases |
| the ability to determine the tactics of managing patients with various nosological forms (PC-8); | Knows | Patterns of the course of the pathological process in surgical and urological diseases, injuries, blood loss, clinical picture, course features and possible complications of the most common surgical and urological diseases occurring in a typical form |
| | Can | Identify the main symptoms and syndromes common to surgical and urological diseases, draw a conclusion about the nature of the pathological process and draw up a plan for examination and treatment of the identified surgical pathology |
| | owns | Methods for identifying the main symptoms and syndromes of surgical diseases, skills in working with reference books, educational literature and other medical information sources |
| 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); | Knows | The main stages of the treatment of patients with the most common types of surgical and urological diseases, the basics of the medical staff at all stages of the treatment of surgical patients. |
| | Can | Identify clinical signs of surgical and urological diseases requiring emergency medical care, perform the entire examination, select a method of wound treatment taking into account the phase of the wound process, select instruments for PST, provide assistance with pathological processes and soft tissue injuries, fractures and dislocations, provide first aid for surgical diseases that do not require emergency medical care. |
| | owns | The main medical diagnostic and therapeutic measures for the provision of first aid in emergency and life-threatening conditions |

For the formation of the above competencies within the discipline "Faculty 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):

- analysis of real clinical situations (case-study);
- solution of clinical situational problems (case-study);
- use of interactive atlases on surgical diseases.
- 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 discipline is implemented at the 5.6 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 360 hours, 10 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).

The purpose and objectives of the discipline

Target:

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. Interintestinal 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. Interintestinal 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 and professional competencies:

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|--|
| Readiness for the medical use of drugs and other substances, and their combinations in solving professional problems (OPK-8); | Knows | drugs prescribed in the treatment of surgical pathology |
| | Can | Determine the indications for prescribing drugs for surgical diseases, make prescriptions based on the dose and route of administration |
| | owns | Skills in the use of drugs in various surgical diseases |
| Ability and readiness to conduct preventive medical examinations, medical examinations and dispensary observation (PC-2) | Knows | Regulatory documentation for the organization preventive medical examinations, clinical examination and dispensary observation |
| | Can | Use guidance documents for the organization preventive medical examinations, clinical examination and dispensary observation |
| | owns | Planning and organization skills preventive medical examinations, clinical examination and dispensary observation, recording their results. |
| The ability to determine in patients the main pathological conditions, symptoms, syndromes of dental diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X viewing (PC-6); | Knows | methodology determination of 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 view |
| | Can | determine 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 view |

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| | owns | -a method 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 view |
| The ability to determine the tactics of managing patients with various nosological forms (PC-8); | Knows | Patterns of the course of the pathological process in surgical infection, trauma, blood loss. |
| | Can | Identify the main symptoms and syndromes common to surgical diseases, draw a conclusion about the nature of the pathological process and draw up a plan for examination and treatment of the identified surgical pathology |
| | owns | Methods for identifying the main symptoms and syndromes of surgical diseases, skills in working with reference books, educational literature and other medical information sources |
| Willingness to manage and treat patients with various nosological forms on an outpatient basis and in a day hospital (PC-9); | Knows | Principles of organization of surgical care in the country, organization of work on an outpatient basis and day hospital conditions |
| | Can | Provide the necessary surgical care on an outpatient basis and in a day hospital |
| | owns | Skills in diagnosing and providing outpatient care for various surgical diseases. |

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.

ANNOTATION

The discipline "Basic Nursing" is intended for students enrolled in the educational program 31.05.01 "Medicine", is a mandatory discipline of the basic part of the curriculum. It is implemented on the 1st course in the 1st 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 144 hours, 4 credit units (lectures - 18 hours, practical classes - 72 hours, independent work of students - 54 hours, exam - 45 hours).

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

The purpose 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.

In accordance with the requirements of the Federal State Educational Standard of Higher Education in the specialty 31.05.01 "General Medicine" to the content and level of training of the graduate, after studying the discipline, the student must have the following competencies:

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

- readiness to ensure the organization of patient care and the provision of primary pre-medical 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);

| Code and wording of competence | Stages of competence formation | |
|---|---------------------------------------|---|
| Ability and willingness to implement ethical and deontological principles in professional activities (GPC 4) | Knows | The norm of behavior when examining a patient, ethics, deontology when talking with a patient and his relatives |
| | Can | 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 |
| | owns | Rules of etiquette, keep medical secrets |
| Preparedness to ensure the organization of patient care and the provision of primary pre-hospital health care (GPC 10) | Knows | Principles of organization of patient care and provision of primary pre-medical health care |
| | Be able to | Organize patient care |
| | Own | Skills in organizing patient care and providing primary pre-hospital health care |
| 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) | Knows | Principles of providing medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases |
| | Be able to | Provide medical assistance in case of sudden acute diseases, conditions, exacerbation of chronic diseases |
| | Own | Skills in providing medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases |
| Willingness to participate in the provision of emergency | Knows | Principles of providing medical care in conditions requiring urgent medical intervention |

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| medical care in conditions requiring urgent medical intervention (PC 11) | Be able to | Provide medical care for conditions requiring urgent medical attention |
| | Own | Skills in providing medical care in conditions requiring urgent medical intervention |
| Preparedness to participate in the provision of medical care in emergency situations, including participation in medical evacuation (PC 13) | Knows | principles of organizing medical care in emergency situations, including medical evacuation |
| | Be able to | organize medical care in emergency situations |
| | Own | skills in organizing medical care in emergency situations, including medical evacuation |

ANNOTATION

Discipline "Propaedeutics of internal diseases, radiation diagnostics» 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, 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 432 hours, 12 credit units (lectures - 90 hours, practical classes - 162 hours, independent work of students - 180 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).

The purpose 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.

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|--|
| GPC-4 ability and willingness to implement ethical and deontological principles in professional activities | Knows | Basic ethical and deontological principles in professional activity |
| | Can | Independently apply the basic ethical and deontological principles in professional activities |
| | owns | Communication skills based ethical and deontological principles in professional activities |
| PC - 5readiness 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 | Knows | Basic principles collection and analysis of patient complaints, data of his anamnesis, examination results, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of a disease |
| | Can | <p>Conduct patient interviews and physical examinations;</p> <p>Interpret the results obtained, synthesize the data obtained;</p> <p>Conduct a physical examination of the patient (examination, palpation, auscultation, measurement of blood pressure, determination of the properties of the arterial pulse, etc.) and identify objective signs of the disease;</p> <p>Decipher typical 12-lead ECGs of a healthy person, as well as patients with simple rhythm and conduction disorders, ventricular and atrial myocardial hypertrophy, acute myocardial infarction and chronic forms of coronary artery disease;</p> <p>Evaluate the results of a general blood test, urine, sputum, feces, analysis of gastric and duodenal contents, pleural effusion, as well as a biochemical blood test</p> |
| | owns | methods of physical examination of the patient; Skills for interpreting the data obtained, highlighting the symptoms and syndromes of the disease |
| PC-8 the ability to determine the tactics of managing patients with various nosological forms | Knows | <p>The main clinical symptoms and syndromes of diseases of internal organs and the mechanism of their occurrence;</p> <p>Symptomatology of the most common diseases of the internal organs, occurring in a typical classical form;</p> <p>Symptomatology and basic principles of medical care in some major emergencies.</p> |
| | Can | <p>Make a plan for additional laboratory and instrumental examination of the patient;</p> <p>Independently diagnose the main clinical syndromes and substantiate this diagnosis;</p> <p>Establish a clinical diagnosis of the most common diseases of the internal organs, occurring in a typical form, and substantiate this diagnosis;</p> |

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| | | Present the results of the examination of the patient in the form of a medical history with the rationale for the diagnosis. |
| | owns | Methodological bases for the use of modern methods of radiation diagnostics skills interpretation of the results of laboratory, instrumental diagnostic methods:(digital radiography, angiography, X-ray computed tomography, radionuclide diagnostics, ultrasound, magnetic resonance imaging); |

ANNOTATION

Discipline Faculty therapy, occupational diseases» is intended for students studying under the educational program 05/31/01 "General Medicine", is included in the basic 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 324 hours, 9 credit units (lectures - 72 hours, practical classes - 126 hours, independent work of students - 126 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).

The purpose and objectives of the discipline:

The purpose of studying the disciplines 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 mastering the program of faculty therapy, the student should form general cultural, general professional and professional competencies.

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|--|
| GPC-8 readiness for medical use of drugs of other substances and their combinations in solving professional problems | Knows: | Basic principles of medical use of drugs and other substances and their combinations in solving professional problems |
| | Be 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 |
| | Own | Skills in the use of drugs in the treatment of common therapeutic diseases |
| PC 5 readiness to collect and analyze 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 | Knows: | Fundamentals of the methodology 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 |
| | Be able to: | collect and analyze the patient's complaints, his medical history, the results of examination, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of the disease |
| | Own: | methods for collecting and analyzing 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 |
| PC 6 the ability to determine the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with | Knows: | Basic principles for determining 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 |

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|---|-------------|--|
| the International Statistical Classification of Diseases and Related Health Problems, X revision | Be able to: | determine the patient's main pathological conditions, symptoms, syndromes of diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision |
| | Own: | - an algorithm for determining the patient's main pathological conditions, symptoms, syndromes of diseases, 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 | Knows: | main methods for determining the tactics of managing patients with various nosological forms |
| | Be able to: | to determine the tactics of managing patients with various nosological forms |
| | Own: | tactics of managing patients with various nosological forms |
| 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 | Knows: | Basic principles of medical care for sudden acute illnesses, conditions, exacerbation of chronic diseases that are not accompanied by a threat to the patient's life and do not require emergency medical care |
| | Be able 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 |
| | Own: | Methods of providing medical care for 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 |

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 360 hours, 10 credit units (lectures - 54 hours, practical classes - 144 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, 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).

The purpose 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:

- 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;
- 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;

- the formation of students' skills in conducting a differential syndrome diagnosis, setting, substantiating, formulating and categorizing a 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 recommendations (protocols);

- 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;

- 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 epicrisis when working with therapeutic patients.

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

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|--|
| GPC-8 readiness for the medical use of drugs, other substances and their combinations in solving professional problems | Knows | Basic principles of the medical use of drugs, other substances and their combinations in solving professional problems |
| | Can | 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 |
| | owns | Skills in the use of drugs in the treatment of common therapeutic diseases |
| PC-2 the ability and readiness to conduct preventive medical examinations, medical | Knows | Basic principles for conducting preventive medical examinations, clinical examination and dispensary observation |

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| examinations and dispensary observation | Can | Conduct preventive medical examinations, medical examinations and carry out dispensary observation. |
| | owns | Methods for conducting preventive medical examinations, clinical examination and dispensary observation |
| PC-6 The ability to determine the patient's main pathological conditions of symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision | Knows | Basic principles for determining 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 |
| | Can | determine the patient's main pathological conditions, symptoms, syndromes of diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision |
| | owns | - an algorithm for determining the patient's main pathological conditions, symptoms, syndromes of diseases, 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 | Knows: | main methods for determining the tactics of managing patients with various nosological forms |
| | Be able to: | to determine the tactics of managing patients with various nosological forms |
| | Own: | tactics of managing patients with various nosological forms |
| PC-9 readiness for the management and treatment of patients with various nosological forms in outpatient settings and day hospital conditions | Knows: | Basic principles of management and treatment of patients with various nosological forms in outpatient and day hospital conditions |
| | Be able to: | manage and treat patients with various nosological forms on an outpatient basis and in day hospital conditions |
| | Own: | Methods of management and treatment of patients with various nosological forms in |

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| | | outpatient settings and day hospital conditions |
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ANNOTATION

The discipline "Polyclinic Therapy" 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 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 396 hours, 11 credit units (lectures - 54 hours, practical classes - 142 hours, independent work of students - 200 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".

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, 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).

The purpose 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 cultural and general professional competencies (elements of competencies):

| Code and wording of competence | Stages of competence formation | |
|---|---------------------------------------|---|
| PC-2 the ability and readiness to conduct preventive medical examinations, medical examinations and dispensary observation | Knows | Basic principles for conducting preventive medical examinations, clinical examination and dispensary observation |
| | Can | Conduct preventive medical examinations, medical examinations and carry out dispensary observation. |
| | owns | Methods for conducting preventive medical examinations, clinical examination and dispensary observation |
| PC-5 readiness to collect and analyze 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 | Knows | Basic principles for collecting and analyzing 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 |
| | Can | 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. |
| | owns | 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 |
| PC-6 The ability to determine the patient's main pathological conditions of symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision | Knows | Basic principles for determining 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 |
| | Can | determine the patient's main pathological conditions, symptoms, syndromes of diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision |
| | owns | - an algorithm for determining the patient's main pathological conditions, symptoms, syndromes of diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision. |
| PC-7 readiness to conduct an examination of temporary disability, participate in a medical and social examination, ascertain the biological death of a person | Knows: | the main methods for conducting an examination of temporary disability, medical and social examination, ascertaining the biological death of a person |
| | Be able to: | determine to conduct an examination of temporary disability, medical and social examination, ascertaining the biological death of a person |
| | Own: | tactics of conducting an examination of temporary disability, medical and social examination, ascertaining the biological death of a person, managing patients with various nosological forms |
| PC-9 readiness for the management and treatment of patients with various nosological forms in outpatient settings and day hospital conditions | Knows: | Basic principles of management and treatment of patients with various nosological forms in outpatient and day hospital conditions |
| | Be able to: | manage and treat patients with various nosological forms on an outpatient basis and in day hospital conditions |

| | | |
|--|------|---|
| | Own: | Methods of management and treatment of patients with various nosological forms in outpatient settings and day hospital conditions |
|--|------|---|

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:

Target:

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 unique and professional competencies:

For the successful study of the discipline "Traumatology, Orthopedics",

students must have the following preliminary competencies:

OK-4 the ability to act in non-standard situations, to bear social and ethical responsibility for the decisions made;

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

PC-5 readiness to collect and analyze 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;

PC-9 readiness for the management and treatment of patients with various nosological forms on an outpatient basis and in day hospital conditions;

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

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|---|
| OK-7 readiness to use first aid techniques, methods of protection in emergency situations | Knows | first aid principles, methods of protection in emergency situations |
| | Can | knows how to use first aid techniques and apply methods of protection in an emergency |
| | owns | first aid and emergency protection skills |
| PC-6 the ability to determine the patient's main pathological conditions of symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision | Knows | Clinical picture, classifications, features of the course, methods of diagnosis and criteria for the diagnosis of internal diseases under study, wording in accordance with the codes of the ICD |
| | Can | Determine the leading syndromes, assess the severity of the underlying disease or a combination of diseases with mutual aggravation, determine the ICD code in accordance with the clinical diagnosis |
| | owns | Criteria for assessing the patient's condition based on clinical diagnostic methods |
| PC-8 ability to determine the tactics of managing patients with various nosological forms | Knows | Criteria for diagnosis of the main studied therapeutic diseases and the rules for routing patients with acute conditions and with complicated course |

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|--|
| | Can | Assess the patient's condition to make tactical decisions on planned and emergency care, identify and carry out priority diagnostic and therapeutic measures |
| | owns | Basic therapeutic and skills for assessing the condition and choosing the level of medical care |
| 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 | Knows | Principles of providing medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases |
| | Be able to | Provide medical assistance in case of sudden acute diseases, conditions, exacerbation of chronic diseases |
| | Own | Skills in providing medical care in case of sudden acute diseases, conditions, exacerbation of chronic diseases |
| PC-11 readiness to participate in the provision of emergency medical care in conditions requiring urgent medical intervention | Knows | Principles of providing medical care in conditions requiring urgent medical intervention |
| | Be able to | Provide medical care for conditions requiring urgent medical attention |
| | Own | Skills in providing medical care in conditions requiring urgent medical intervention |

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

3. It is planned to conduct practical classes using computer training programs, work with dummies and phantoms with the analysis of clinical cases
4. 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.
5. Active and interactive forms of conducting classes (IT methods):
 - analysis of real clinical situations (case-study);
 - solution of clinical situational problems (case-study);
 - use of interactive atlases on surgical diseases.
 - 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, 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 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:

Target:

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:

6. 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.

7. Formation of students' skills in assessing the medical and sanitary consequences of emergency situations, providing medical care and participating in medical evacuation.

8. Formation of readiness for participation in carrying out measures to protect the population and medical personnel in emergency situations

9. 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 general cultural and general professional competencies (elements of competencies):

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|--|
| OK-4-the ability to act in non-standard situations, to bear social and ethical responsibility for decisions made | Knows | information sources of a reference and regulatory nature, the main regulatory documents relating to actions in non-standard situations during disasters |
| | Can | find and make responsible decisions, assess the medical situation in emergency situations |
| | owns | methods for assessing the medical and tactical characteristics of lesions in emergency situations |
| OK-7-willingness to use first aid techniques, methods of protection in emergency situations | Knows | first aid techniques, methods of protection in emergency situations |
| | Can | provide first aid, apply methods and methods of protection in emergency situations of various nature |
| | owns | first aid methods and methods protection in an emergency |
| GPC-10 - readiness to ensure the organization of patient care and the provision of primary pre-hospital health care | Knows | Algorithms for performing the main activities for organization of patient care and provision of primary pre-medical health care |
| | Can | organize patient care and provide primary pre-medical health care |
| | owns | technique organized patient care and provision of primary pre-medical health care |
| 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 | Knows | main pathological conditions in patients, symptoms, syndromes of diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision |
| | Can | Independently determine the patient's main pathological conditions in patients, symptoms, syndromes of diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision |

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| | owns | Methods for determining 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-19 - ability to organize medical care in emergency situations, including medical evacuation | Knows | the basics of organizing medical care in emergency situations, including medical evacuation |
| | Can | organize the provision of medical care in emergency situations, including medical evacuation |
| | owns | skills in organizing medical care in emergency situations, including medical evacuation |

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 "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 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 108 hours, 3 credits.

The course program is based on the basic knowledge gained by students:
readiness for the use of medical devices provided for by the procedures for the provision of medical care (OPK-11)

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 tactics of managing patients with various nosological forms (PC-8)

readiness to participate in the provision of emergency medical care in conditions requiring urgent medical intervention (PC-11)

The purpose 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 universal and general cultural and professional competencies:

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|--|
| willingness to use first aid techniques, methods of protection in emergency situations (OK-7) | Knows | Use first aid techniques, methods of protection in emergency situations |
| | Can | Provide first aid, use methods of protection in emergency situations |
| | owns | skill first aid, use of protection methods in emergency situations |
| 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) | Knows | Method of examination of patient's research to recognize a condition or establish the presence or absence of a disease |
| | Can | Identify, analyze and interpret patient examination data for the purpose of recognizing a condition or establishing the fact of the presence or absence of a disease |
| | owns | The skill of systematic examination of the patient for the purpose of recognizing a condition or establishing the fact of the presence or absence of a disease |
| the ability to determine the tactics of managing patients with various nosological forms (PC-8); | Knows | Fundamentals of management tactics for patients with various nosological forms |
| | Can | Use educational and scientific literature to address issues of determining the tactics of managing patients with various nosological forms |
| | owns | The ability to determine the tactics of managing patients with various nosological forms based on scientific and educational medical literature |
| readiness to participate in the provision of emergency medical care in conditions requiring urgent medical intervention (PC-11) | Knows | Methods of providing emergency medical care in conditions requiring urgent medical intervention |
| | Can | Apply methods of emergency medical care in conditions requiring urgent medical intervention |
| | owns | The skill of applying methods of emergency medical care in conditions requiring urgent medical intervention |
| readiness to participate in the provision of medical care in emergency situations, including | Knows | Methods of providing emergency medical care in conditions requiring urgent medical intervention |
| | Can | Apply methods of emergency medical care in |

| | | |
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| participation in medical evacuation (PC-13); | | conditions requiring urgent medical intervention |
| | owns | The skill of applying methods of emergency medical care in conditions requiring urgent medical intervention |

ANNOTATION

The discipline "Hygiene" 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 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).

Purpose and objectives of the course

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.

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

- 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);
- readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems (OPK-7);
- 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-3);
- readiness for educational activities to eliminate risk factors and the formation of healthy lifestyle skills (PC - 16).

| Code and wording of competence | Stages of competence formation | |
|---|---------------------------------------|--|
| 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 | Knows | information sources of a reference and regulatory nature, the main regulatory documents relating to the organization and control of the sanitary and hygienic state of various institutions; environmental factors that affect human health and life; mechanisms of influence of various factors on the human body; modern requirements for the sanitary-hygienic and anti-epidemic regime of various medical institutions |

| | | |
|--|--------------|--|
| <p>and conditions for their occurrence and development, as well as aimed at eliminating the harmful effects of environmental factors on human health</p> | <p>Can</p> | <p>independently work with educational, scientific, regulatory and reference literature, conduct a search, turn the information received into a tool for solving professional problems; determine and evaluate the parameters of the microclimate of industrial premises of various medical institutions; carry out instrumental and calculated determinations of natural and artificial illumination of premises; evaluate the effectiveness of natural and artificial ventilation of premises; assess the quality of drinking water; calculate the number of bactericidal irradiators in the disinfection of air and indoor surfaces; evaluate the energy and nutritional value of a person's daily diet, taking into account the coefficient of physical activity</p> |
| <p>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</p> | <p>owns</p> | <p>methods of planning and developing a scheme for medical and biological experiments; methods for assessing the health and physical development of the population, assessing the functional state of the central nervous system and mental performance; methods of carrying out specific preventive measures to examine the conditions of external factors and the production environment; methods for assessing the health and physical development of the population, assessing the functional state of the central nervous system and mental performance</p> |
| <p>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</p> | <p>Knows</p> | <p>the basics of a healthy lifestyle of a person as a factor of his safe life; occupational hazards and prevention of occupational pathology of a doctor; the main hygienic measures of a health-improving nature, the main physiological indicators that contribute to the preservation and promotion of health, disease prevention</p> |
| <p>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</p> | <p>Can</p> | <p>to train the population in basic hygienic measures of a health-improving nature, the skills of self-control of basic physiological indicators that contribute to the preservation and promotion of health, disease prevention</p> |

| | | |
|---|-------|---|
| | owns | methods of conducting hygienic education and education of the population; skills of organizational and methodological work, planning in the field of health protection |
| PC-16 readiness for educational activities to eliminate risk factors and develop healthy lifestyle skills | Knows | risk factors and healthy lifestyle skills |
| | Can | carry out information, educational and sanitary-educational work |
| | 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 basic 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, disinfection 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.

The purpose and objectives of the discipline:

Target: 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:

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|--|
| 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 | Knows | epidemic process and non-infectious epidemiology, epidemiology of infectious and parasitic diseases, implementation of anti-epidemic measures, protection of the population in foci of especially dangerous infections, in case of deterioration of the radiation situation and natural disasters; |
| | Can | carry out preventive, hygienic and anti-epidemic measures; |
| | owns | methods for assessing the health and physical development of the population, methods of planning and developing a scheme for medical and biological experiments |
| PC-16 readiness for educational activities to eliminate risk factors and develop healthy lifestyle skills | Knows | the basics of a healthy lifestyle of a person as a factor of his safe life; |
| | Can | carry out informational, educational and sanitary-educational work; work independently with educational, scientific and reference literature. |
| | owns | methods of conducting hygienic education and education of the population; skills of organizational and methodological work, planning in the field of health protection. |

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 the direction of training 31.05.01 "Medicine", students of the educational program "Medicine". This course included in the variable part of the curriculum as a compulsory discipline, 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".

Purpose and objectives of the course:

Target to 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 general professional competencies (elements of competencies).

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|--|
| OPK-9 the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems | Knows | <ul style="list-style-type: none"> - physical patterns underlying the processes occurring in the body; - physical properties of biological tissues; - mechanisms of action of physical factors on the body; - basics of physiotherapy and diagnostic equipment; |
| | Can | <ul style="list-style-type: none"> analyze the life processes of biosystems using the laws of physics; - to explain the physical properties of biological tissues, the functioning of systems using the methods of physical and mathematical modeling; - justify the choice of a physical factor acting on the body for diagnostic and therapeutic purposes; - evaluate the output data of physiotherapeutic and diagnostic equipment. |
| | owns | <ul style="list-style-type: none"> - skills in conducting experimental research; - skills in compiling the simplest physical and mathematical models for the study of biosystems; |

| | | |
|--|-------|---|
| | | - Skills of obtaining information from various sources. |
| 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 | Knows | - general 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 |
| | can | analyze the results of examination, laboratory, instrumental studies in order to recognize the condition or establish the fact of the presence or absence of a disease |
| | owns | methods of laboratory, instrumental research in order to recognize the condition or establish the fact of the presence or absence of a disease |
| PC-6 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 | Knows | general and special research methods in the main branches of medicine; fundamentals of the use of instrumental diagnostic methods in various branches of medicine |
| | can | receive and analyze information about the development and course of the disease; apply objective methods of examination of the patient, identify general and specific signs of the disease; assess the severity of the patient's condition; determine, interpret the received data; |
| | owns | formed skills that allow to establish a diagnosis and provide qualified assistance in the most common diseases; |

ANNOTATION

The discipline "Medical Biotechnology" is intended for students studying under the educational program 31.05.01 "Medicine".

The discipline is implemented in the 3rd year, 6 semesters, is the basic discipline.

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

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 discipline "Medical Biotechnology" is to teach students the basic methods of working with genetically engineered structures and the formation of a comprehensive understanding of the use of molecular biology methods in biomedical research.

Tasks:

- To study the theoretical foundations of the methods of molecular biology and genetic engineering

- Familiarize yourself with PCR and molecular cloning methods
- Familiarize yourself with the methods of analysis of nucleotide sequences
- Learn basic methods of working with cultures of human cancer cells
- To study the theoretical foundations of the action of anticancer drugs

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

| Code and wording of competence | Stages of competence formation |
|--------------------------------|--------------------------------|
|--------------------------------|--------------------------------|

| | | |
|--|-------|---|
| <p>OPK-1</p> <p>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</p> | Knows | Fundamentals of subject search in information, bibliographic resources, biomedical terminology. |
| | can | Find literature describing open questions in modern biotechnology and health care. |
| | owns | Methods of searching for scientific information in NCBI databases. |
| <p>OPK-11</p> <p>readiness for the use of medical devices provided for by the procedures for the provision of medical care</p> | Knows | The principle of operation of the amplifier for PCR, equipment for electrophoresis of proteins and nucleic acids, incubators and bioreactors for working with prokaryotic and eukaryotic cells. |
| | Can | Work with cultures of prokaryotic and eukaryotic cells, obtain stable cell lines expressing recombinant proteins. |
| | owns | Methods of polymerase chain reaction, electrophoresis of proteins and nucleic acids, methods of purification and isolation of proteins and nucleic acids, methods of molecular cloning. |
| <p>PK-22</p> <p>willingness to participate in the introduction of new methods and techniques aimed at protecting the health of citizens</p> | Knows | Features of operation and capabilities of equipment for biotechnological work. |
| | Can | Apply new methods and techniques aimed at protecting the health of citizens in the field of modern biotechnology and healthcare. |
| | owns | Skills in the introduction of new methods and techniques aimed at protecting the health of citizens in the field of modern biotechnology and healthcare. |

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, is implemented for 3 and 4 courses 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 (81 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.

The purpose 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.

For the successful study of the discipline "Pharmacology", students should have the following preliminary competencies of PC GPC-8 - readiness to work in a team, tolerantly perceive social, ethnic, confessional and cultural differences;OPK-9 -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; PC-14 -readiness 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 spa treatment.

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

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|---|
| GPC-8 - readiness for the medical use of drugs and other substances, and their combinations in | Knows | Typical pathological processes in the human body and mechanisms of their development |
| | Can | Explain changes in the patient's body based on knowledge of typical pathological processes. |

| | | |
|--|-------|--|
| solving professional problems; | owns | The skills of interpreting disorders in the patient's body to explain the correction of existing disorders |
| OPK-9 -the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems | Knows | -basic concepts of pharmacokinetics and pharmacodynamics; -mechanisms for the development of drug resistance; -the basic principles of an individualized approach to the pharmacological treatment of diseases; |
| | Can | - to explain the mechanisms of occurrence of the main pathological processes; -explain the mechanisms of action of the drugs studied during the course. |
| | owns | - the skill of choosing a drug based on the totality of its pharmacological properties, mechanisms and localization of action and the possibility of replacing it with another drug in case of absence; - the skills of predicting the possible interaction of drugs in the combined use of various drugs; - skills of working with reference and scientific literature, electronic databases. Internet resources for solving professional problems; - the basics of measures to provide first aid in case of urgent and life-threatening conditions, acute drug poisoning. |
| PC-14 -readiness 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 spa treatment. | Knows | - current problems and trends in the development of pharmacology; - theoretical and methodological foundations of pharmacology; - rules for prescribing drugs in various dosage forms |
| | Can | - to explain the mechanisms of occurrence of the main pathological processes; |
| | owns | - methodology for processing pharmacological, diagnostic information using modern computer technologies; |

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.

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

PC-5 readiness to collect 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 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 professional competencies (PC):

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|--|
| Readiness for the medical use of drugs and other substances, and their combinations in solving professional problems (OPK-8); | Knows | Drugs prescribed for the treatment of skin and venereal diseases |
| | Can | Determine indications for prescribing drugs skin and venereal diseases, make appointments based on the dose and routes of administration |
| | owns | Skills in the use of drugs in various skin and venereal diseases |
| Willingness to collect 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 the disease (PC-5). | 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. |
| | Can | Get 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 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. |
| | owns | Skills in examining a patient, allowing to establish a diagnosis and determine the tactics of managing a patient with skin and sexually transmitted diseases. |
| 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-6). | 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. |
| | Can | Get 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 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. |

| Code and wording of competence | Stages of competence formation | |
|---|---------------------------------------|---|
| | owns | Skills to establish a diagnosis and determine the tactics of managing a patient with skin and venereal disease. |
| The ability to determine the tactics of managing patients with various nosological forms (PC-8) | Knows | General and special methods of research and treatment in the main sections of dermatovenereology |
| | Can | Apply objective methods of examination of the patient, identify general and specific signs of dermatological and venereal disease; Determine the indications for hospitalization of the patient, determine its urgency, organize hospitalization in accordance with the patient's condition; Identify indications for outpatient treatment for skin diseases and sexually transmitted infections (STIs) |
| | owns | Methods for identifying the main symptoms and syndromes of skin and venereal diseases, skills in working with reference books, educational literature and other medical information sources |

ANNOTATION

The discipline "Neurology, Medical Genetics" 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 at the 4.5 year in 8, 9 semesters. 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 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);

The purpose and objectives of the discipline:

Target: studying the main diseases of the nervous system, acquiring the skills of building 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 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/professional competencies (elements of competencies).

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|--|
| GPC8 Readiness for the medical use of medicinal substances and their combinations in solving professional problems | Knows | Principles etiological, pathogenetic, symptomatic treatment of major diseases of the central nervous system and peripheral nervous system. |
| | Be able to | Prescribe pathogenetic therapy taking into account the etiology of the disease with the use of drug therapy in patients in need of medical rehabilitation. |
| | Own | Treatment methods |

| | | |
|--|------------|--|
| PC5 Willingness to collect and analyze the patient's complaints, his medical history data. The results of the examination, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of the disease | Knows | <ol style="list-style-type: none"> 1. Maintaining a standard accounting and reporting medical documentation in medical organizations 2. Fundamentals of preventive medicine, the organization of preventive measures aimed at improving the health of the population |
| | Be able to | <ol style="list-style-type: none"> 1. Plan, analyze and evaluate the quality of medical care, the state of health of the population and the impact of environmental and industrial factors on it 2. Assess social factors affecting the patient's physical and psychological health: cultural, ethnic, religious, individual, family, social risk factors; make a preliminary diagnosis - synthesize information about the patient in order to determine the pathology and its causes; 3. To outline the scope of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result |
| | own | <ol style="list-style-type: none"> 1. Correct maintenance of medical records 2. Methods of general clinical examination |
| PC6 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. | Knows | Principles of etiological, pathogenetic, symptomatic treatment of major diseases of the central nervous system and peripheral nervous system. Provision of emergency and urgent care, indications and contraindications for the appointment of therapeutic measures, evaluation of treatment results |
| | can | Prescribe pathogenetic therapy taking into account the etiology of the disease |
| | owns | Treatment methods |
| PC8 Ability to determine the tactics of managing a patient with various nosological forms | Knows | Principles of etiological, pathogenetic, symptomatic treatment of major diseases of the central nervous system and peripheral nervous system. Provision of emergency and urgent care, indications and contraindications for the appointment of therapeutic measures, evaluation of treatment results |
| | can | Prescribe pathogenetic therapy taking into account the etiology of the disease |
| | owns | Treatment methods |

ANNOTATION

The discipline "Infectious Diseases" 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 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 (99 hours, of which 27 hours are preparation for the exam).

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).

The purpose and objectives of the discipline:

The purpose of studying the discipline: formation of professional competencies in the field of knowledge in general and particular infectiology, 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):

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|---|
| GPC-8 - readiness for the medical use of drugs, other substances and their combinations in solving professional problems. | Knows | 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 drug prescriptions. |

| | | |
|--|-------|--|
| | Can | analyze the effect of medicines in terms of 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. |
| | owns | skills in the use of medicines in the treatment, rehabilitation and prevention of various diseases and pathological conditions. |
| PC-5 readiness to collect and analyze 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. | Knows | etiology, diagnosis, treatment and prevention of infectious diseases; clinical picture, features of the course and possible complications of infectious diseases occurring in a typical form; modern methods of clinical instrumental diagnostics of patients infectious profile; features of the collection of pathological materials; precautions, special clothing; basic principles of diagnosis, treatment and rehabilitation of infectious diseases, indications for hospitalization with infectious diseases; principles of dispensary observation of infectious patients, rehabilitation patients; implementation of specific and non-specific prevention of infectious diseases. |
| | Can | participate in the organization and provision of medical and preventive and sanitary anti-epidemic, preventive and rehabilitation assistance to the population with infectious diseases; interpret the results of the examination, make a preliminary diagnosis, 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, to use methods of non-drug treatment, to carry out rehabilitation measures. |
| | owns | interpretation of the results of laboratory, instrumental diagnostic methods with infectious disease; algorithm for making a preliminary diagnosis with subsequent referral to additional examination and to doctors-specialists; an algorithm for making a detailed clinical diagnosis for patients; an algorithm for performing basic medical diagnostic and therapeutic measures to provide first aid in case of urgent and life-threatening conditions in infectious diseases. |
| PC-6 ability to determine the main pathological conditions, symptoms, disease syndromes, nosological forms in patients in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision. | Knows | clinical picture, course features and possible complications of the most common infectious diseases; modern classification of infectious diseases; criteria for the diagnosis of infectious diseases. |
| | Can | determine the main pathological conditions, symptoms, disease syndromes, nosological forms in patients; formulate a topical diagnosis; make preliminary and final diagnoses reflecting the etiology, course, nature and degree of dysfunction; outline the scope of additional studies to clarify the diagnosis and obtain a reliable result. |
| | owns | algorithm for a detailed clinical diagnosis. |
| PC 8 - the ability to determine the tactics of managing patients with various nosological forms. | Knows | methods of treatment of patients with infectious diseases; the mechanism of action of the main groups of drugs; medical indications and contraindications to their use; complications associated with their use. |
| | Can | develop a plan of therapeutic measures for various infectious diseases; choose an individual type of care for the treatment of the patient in accordance with the situation: primary care, ambulance, hospitalization; |

| | | |
|--|-------|--|
| | | <p>formulate indications for the chosen method of treatment, taking into account etiologic and pathogenetic agents, justify pharmacotherapy in a particular patient with major pathological syndromes, determine the route of administration, regimen and dose of drugs;</p> <p>carry out the appointment of drug therapy for children, taking into account the clinical picture of the disease.</p> |
| | owns | the ability to determine the tactics of managing patients with various nosological forms. |
| 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. | Knows | <p>methods of treatment of patients with infectious diseases;</p> <p>the mechanism of action of the main groups of drugs;</p> <p>medical indications and contraindications to their use; complications associated with their use.</p> |
| | Can | <p>develop a plan of therapeutic measures for infectious diseases;</p> <p>formulate indications for the chosen method of treatment, taking into account etiologic and pathogenetic agents, justify pharmacotherapy in a particular patient with major pathological syndromes, determine the route of administration, regimen and dose of drugs;</p> <p>carry out the appointment of drug therapy for adults and children, taking into account the clinical picture of the disease;</p> |
| | owns | readiness for the management and treatment of patients with various nosological forms. |

ANNOTATION

The discipline "Pediatrics" is the discipline of the basic 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 (81 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 result study given disciplines at students formed the following general cultural and general professional competencies (elements of competencies):

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|--|
| GPC-8 readiness for the medical use of drugs, and other substances and their | Knows | Principles of modern pharmacotherapy and tactics of managing patients with the most common diseases of internal organs, incl. in emergencies |

| | | |
|--|------------|---|
| combinations in solving professional problems | Can | Carry out treatment of patients with the most common diseases of internal organs, including those in emergency conditions requiring medical care |
| | owns | Modern methods of rational, individualized pharmacotherapy |
| 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 | Knows | Basic principles for collecting complaints and anamnesis, examination results in children and adolescents, interpretation of the results of laboratory and instrumental examinations in order to verify the diagnosis. |
| | Be able to | Evaluate the results of subjective and objective methods of examining the patient |
| | Own | The skills of examining a sick child (collecting complaints and anamnesis, evaluating the results of examination and examination) |
| 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 | Knows | The main symptoms, syndromes of diseases of internal organs, nosological forms in accordance with the International Statistical Classification of Diseases |
| | Be able to | Determine pathological conditions, symptoms, syndromes of diseases of internal organs, nosological forms in patients in accordance with the International Statistical Classification of Diseases and health problems |
| | Own | The skills of establishing nosological forms in patients in accordance with the International Statistical Classification of Diseases based on certain symptoms, syndromes |
| PC-8 the ability to determine the tactics of managing patients with various nosological forms | Knows | Principles of etiological, pathogenetic, symptomatic treatment of major diseases of internal organs. Provision of emergency and urgent care, indications and contraindications for the appointment of therapeutic measures, evaluation of treatment results |

| | | |
|--|------------|--|
| | Be able to | Prescribe pathogenetic therapy taking into account the etiology of the disease |
| | Own | Treatment methods |

ANNOTATION

The discipline "Obstetrics and Gynecology" is intended for students enrolled in the educational program 31.05.01 "General Medicine".

The discipline is implemented at the 4th and 5th courses, it 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 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 (126 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);

The purpose 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 and professional competencies:

| Code and wording of competence | Stages of competence formation | |
|---------------------------------------|---------------------------------------|--|
| readiness for the medical | Knows | Essential medicines prescribed for obstetric |

| | | |
|--|-------|--|
| use of drugs, other substances and their combinations in solving professional problems (OPK-8) | | complications and gynecological diseases |
| | Can | Prescribe medications for pregnant women, women in labor and gynecological patients |
| | owns | Methods for the correct use of drugs and their combinations in obstetric complications and gynecological diseases |
| 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); | Knows | methodology 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 an obstetric complication, or a gynecological disease |
| | Can | Collect and analyze the patient's complaints, anamnesis data, examination results, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of an obstetric complication, or a gynecological disease |
| | owns | Methodology collection and analysis of 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 an obstetric complication, or a gynecological disease |
| 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 viewing (PC-6); | Knows | methodology determination of the main pathological conditions, symptoms, syndromes of obstetric and gynecological diseases, nosological forms in patients in accordance with the International Statistical Classification of Diseases and Related Health Problems, X view |
| | Can | Determine in patients the main pathological conditions, symptoms, syndromes of obstetric and gynecological diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X view |
| | owns | A method for identifying the main pathological conditions, symptoms, syndromes of obstetric and gynecological diseases, nosological forms in patients in accordance with the International Statistical Classification of Diseases and Related Health Problems, X view |
| the ability to determine the tactics of managing patients with various nosological forms (PC-8) | Knows | Methods of managing patients with obstetric and gynecological diseases |
| | Can | Determine the tactics of managing patients with obstetric and gynecological diseases |
| | owns | The method of prescribing tactics for managing patients with obstetric and gynecological diseases |
| readiness for conducting | Knows | Methods of conducting physiological pregnancy and |

| | | |
|---|------|--|
| physiological pregnancy, delivery (PC-12) | | normal childbirth |
| | Can | Conduct a physiological pregnancy and perform delivery |
| | owns | Tactics of conducting physiological pregnancy and childbirth |

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 the basic discipline of the curriculum, intended for students studying under the educational program 31.05.01 "Medicine", implemented in the 5th year in the 10th 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 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);

The purpose 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.

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

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

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|--|
| GPC 8 Readiness for the medical use of medicinal substances and their combinations in solving professional problems | Knows | Principles etiological, pathogenetic, symptomatic treatment of major psychiatric diseases. |
| | Be able to | Prescribe pathogenetic therapy taking into account the etiology of the disease with the use of drug therapy in patients in need of medical rehabilitation. |
| | Own | Treatment methods |
| PC5 Willingness to collect and analyze the | Knows | 1. Maintaining a standard accounting and reporting medical documentation in medical organizations |

| | | |
|--|------------|---|
| patient's complaints, his medical history data. The results of the examination, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of the disease | | 2. Fundamentals of preventive medicine, the organization of preventive measures aimed at improving the health of the population |
| | be able to | 1. plan, analyze and evaluate the quality of medical care, the state of health of the population and the impact of environmental and industrial factors on it 2. assess social factors affecting the patient's physical and psychological health: cultural, ethnic, religious, individual, family, social risk factors; make a preliminary diagnosis - synthesize information about the patient in order to determine the pathology and its causes; 3. outline the scope of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result |
| | own | 1. Correct maintenance of medical records 2. Methods of general clinical examination |
| PC6 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. | Knows | Principles of etiological, pathogenetic, symptomatic treatment of major psychiatric disorders. Provision of emergency and urgent care, indications and contraindications for the appointment of therapeutic measures, evaluation of treatment results |
| | can | Prescribe pathogenetic therapy taking into account the etiology of the disease |
| | owns | Treatment methods |
| PC8 Ability to determine the tactics of managing a patient with various nosological forms | Knows | Principles of etiological, pathogenetic, symptomatic treatment of major psychiatric disorders. Provision of emergency and urgent care, indications and contraindications for the appointment of therapeutic measures, evaluation of treatment results |
| | can | Prescribe pathogenetic therapy taking into account the etiology of the disease |
| | owns | Treatment methods |

ANNOTATION

Discipline «Dentistry» 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, is the basic 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;

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

GPC-8 readiness for the medical use of drugs and other substances, and their combinations in solving professional problems

OPK-11 readiness for the use of medical devices provided for by the procedures for providing medical care to patients with dental diseases

PC-5 readiness to collect and analyze 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 dental disease;

PC-6 the ability to determine in patients the main pathological conditions, symptoms, syndromes of diseases, nosological forms in dentistry 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 in dentistry;

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|--|
| GPC-8 readiness for the medical use of drugs and other substances, and their | Knows | the scope of care for dental diseases and injuries of the maxillofacial region at the stages of medical evacuation; types of complications in diseases and injuries of the |

| | | |
|--|-------|---|
| combinations in solving professional problems | | maxillofacial region, their prevention and treatment |
| | Can | patient for out local anesthesia; |
| | owns | performing basic medical diagnostic and therapeutic measures to provide first aid to dental patients in urgent and life-threatening conditions; |
| OPK-11 readiness for the use of medical devices provided for by the procedures for the provision of medical care | Knows | Apply medical devices |
| | Can | Apply medical devices |
| | owns | Application of medical devices - Bix for storage of sterile instruments and material - Scales incl. electronic scales for children under 1 year old - Dispensers for liquid soap, disinfectants - Container for disinfection of instruments and consumables - Container for collecting household and medical waste - Container for disposal of syringes, needles and other disposable instruments |
| 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 | Knows | Patterns of the course of pathological processes requiring orthodontic treatment |
| | Can | Apply objective methods of examination of the patient, identify common and specific signs of orthodontic disease; |
| | owns | Knowledge in order to establish a diagnosis and conduct the necessary treatment for orthodontic diseases; |
| 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 | Knows | Etiology, pathogenesis and clinical picture of the main dental diseases; basic methods of examination of dental patients |
| | Can | Diagnosis of major dental diseases; identify indications for emergency hospitalization |
| | owns | Maintenance of medical accounting and reporting documentation; clinical examination of the maxillofacial region; interpretation of the results of laboratory, instrumental diagnostic methods in patients of different ages, reading various types of radiographs; making a preliminary diagnosis to patients and, if necessary, with their subsequent referral for additional examination |
| PC-8 ability to determine the tactics of managing patients | Knows | Indications for hospitalization of dental patients; scope of care for dental diseases |

| | | |
|--------------------------------|------|--|
| with various nosological forms | | and injuries of the maxillofacial region at the stages of medical evacuation |
| | Can | identify indications for emergency hospitalization; provide emergency assistance to victims with a facial injury on an outpatient basis; carry out transport immobilization and prepare victims for transportation; take measures to prevent the development of complications of trauma and purulent-inflammatory diseases of the maxillofacial region |
| | owns | interpretation of the results of laboratory, instrumental diagnostic methods in patients of different ages, reading various types of radiographs; |

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 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 108 hours, 3 credits.

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

1. GPC-4 - the ability and willingness to implement ethical and deontological principles in professional activities
2. OPK-8 - readiness for the medical use of drugs and other substances, and their combinations in solving professional problems
3. GPC-9 - the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems
4. 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;
5. PC-16 - readiness for educational activities to eliminate risk factors and develop healthy lifestyle skills

Purpose and objectives of the course:

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 general professional and professional competencies:

| Code and wording of competence | Stages of competence formation | |
|---|---------------------------------------|--|
| GPC-8 readiness for the medical use of drugs and other substances, and their combinations in solving professional problems | Knows | Basic principles of surgical and conservative treatment in patients with ENT diseases |
| | Can | Determine the tactics of treatment of patients with diseases of the upper respiratory tract. |
| | owns | Skills in working with guidelines, standards that determine approaches to the treatment of patients with diseases of the upper respiratory tract |
| PC-5 readiness to collect and analyze 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 | Knows | General and special research methods in the main sections of medicine in patients with diseases of the ENT organs |
| | Can | Get information about the development and course of the disease; apply objective methods of examination of the patient, identify general and specific signs of the disease; assess the severity of the patient's condition; determine the need and sequence of application of special research methods (laboratory, radiological, endoscopic, functional), interpret the data obtained in patients with diseases of the upper respiratory tract. |
| | owns | Skills that allow to establish a diagnosis and provide qualified assistance to patients with diseases of the ENT organs. |
| PC-6 the ability to determine the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in | Knows | modern classification of diseases in accordance with the International Statistical Classification of Diseases and Related Health Problems and Problems, X revision; clinical picture of the main pathological conditions, symptoms, syndromes, features of the course and possible complications of the most common diseases of the upper respiratory tract. |
| | Can | Determine in patients the main pathological conditions, symptoms, syndromes of ENT diseases in according to the |

| | | |
|--|-------|--|
| accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision | | International Statistical Classification of Diseases and Related Health Problems, X view |
| | owns | Conducting a clinical examination of the patient's ENT organs; assessment of the changes identified during the examination and the formulation of a preliminary diagnosis; drawing up an examination plan taking into account the preliminary diagnosis; formulating a diagnosis according to the International Statistical Classification of Diseases and Related Health Problems, X revision |
| PC-8 the ability to determine the tactics of managing patients with various nosological forms | Knows | Fundamentals of management tactics for patients with acute and chronic diseases of the upper respiratory tract |
| | Can | To draw up a program of diagnostic and therapeutic measures for chronic and acute diseases of the ENT organs. To draw up a treatment plan in accordance with the standards for patients with diseases of the ENT organs. |
| | owns | The skill of primary examination of a patient with diseases of the ENT organs and the appointment of treatment in accordance with the identified pathology. |

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 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 108 hours, 3 credits.

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

GPC-4 - the ability and willingness to implement ethical and deontological principles in professional activities

OPK-8 - readiness for the medical use of drugs and other substances, and their combinations in solving professional problems

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

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;

PC-16 - readiness for educational activities to eliminate risk factors and develop healthy lifestyle skills

The purpose 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 "Dentistry" 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 general professional and professional competencies:

| Code and wording of competence | Stages of competence formation | |
|---|---------------------------------------|---|
| GPC-8 readiness for the medical use of drugs and other substances, and their combinations in solving professional problems | Knows | Basic principles of surgical and conservative treatment in patients with diseases of the organs of vision |
| | Can | Determine the tactics of treating patients with diseases of the organs of vision |
| | owns | Skills in working with guidelines, standards that determine approaches to the treatment of patients with diseases of the organs of vision |
| PC-5 readiness to collect and analyze 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 | Knows | General and special research methods in the main sections of medicine in patients with diseases of the organs of vision |
| | Can | Get information about the development and course of the disease; apply objective methods of examination of the patient, identify general and specific signs of the disease; assess the severity of the patient's condition; determine the need and sequence of application of special research methods (laboratory, radiological, endoscopic, functional), interpret the data obtained in patients with diseases of the organs of vision. |
| | owns | Skills to establish a diagnosis and provide qualified assistance to patients with diseases of the organs of vision |

| | | |
|---|-------|---|
| 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 | Knows | modern classification of diseases in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision; clinical picture of the main pathological conditions, symptoms, syndromes, course features and possible complications of the most common diseases organs of vision |
| | Can | Determine the main pathological conditions, symptoms, syndromes of diseases in patients' organs of vision in accordance with the International Statistical Classification of Diseases and Related Health Problems, X view |
| | owns | Conducting a clinical examination organ of vision of the patient; assessment of the changes identified during the examination and the formulation of a preliminary diagnosis; drawing up an examination plan taking into account the preliminary diagnosis; formulating a diagnosis according to the International Statistical Classification of Diseases and Related Health Problems, X revision |
| PC-8 the ability to determine the tactics of managing patients with various nosological forms | Knows | Fundamentals of management tactics for patients with acute and chronic diseases of the organs of vision |
| | Can | To draw up a program of diagnostic and therapeutic measures for chronic and acute diseases of the organs of vision. To draw up a treatment plan in accordance with the standards for patients with diseases of the organs of vision. |
| | owns | The skill of primary examination of a patient with diseases of the organs of vision and the appointment of treatment in accordance with the identified pathology. |

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

Discipline «Phthisiology» 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 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 144 hours, 4 credits.

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

- readiness for the medical use of drugs, 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).

The purpose 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 phthisiology, 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 phthisiology, with an emphasis on their characteristic pathological syndromes, necessary to solve a problem corresponding to the basic level of professional competence of a dentist in the field of infectious diseases and phthisiology;

- 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 activity of a dentist in the field of infectious pathology and phthisiology, corresponding to the basic level of professional competence, aimed at applying knowledge on infectious diseases and phthisiology 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 and professional competencies:

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|---|
| GPC-8 - readiness for the medical use of drugs, other substances and their combinations in solving professional problems. | Knows | -classification and main characteristics of medicines, pharmacodynamics and pharmacokinetics, indications and contraindications for the use of medicines, side effects; -general principles for the design of receptors and the preparation of prescription drug prescriptions. |
| | Can | - to analyze the effect of drugs in terms of the totality of their pharmacological properties and the possibility of their use for therapeutic treatment; - write out prescriptions for medicines, use various medicines, apply basic antibacterial, antiviral and biological drugs; evaluate possible |

| | | |
|---|-------|--|
| | | <p>manifestations in case of drug overdose and ways to eliminate them;</p> <ul style="list-style-type: none"> - substantiate the principles of pathogenetic therapy of the most common diseases. |
| | owns | <ul style="list-style-type: none"> - skills in the use of medicines in the treatment, rehabilitation and prevention of various diseases and pathological conditions. |
| <p>PC-5 readiness to collect and analyze 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.</p> | Knows | <ul style="list-style-type: none"> - etiology, diagnosis, treatment and prevention of infectious diseases; hospitals, boxes; clinical picture, features of the course and possible complications of infectious diseases occurring in a typical form; -modern methods of clinical instrumental diagnostics of patients infectious profile; -features of the collection of pathological materials; precautions, special clothing; basic principles of diagnosis, treatment and rehabilitation of infectious diseases, -indications for hospitalization with infectious diseases; - the structure of the infectious and phthisiatric services, the principles of the structure, organization and mode of operation of infectious diseases departments, -principles of dispensary observation of infectious patients, rehabilitation patients; - implementation of specific and non-specific prevention of infectious diseases. |
| | Can | <p>participate in the organization and provision of medical and preventive and sanitary anti-epidemic, preventive and rehabilitation assistance to the population with infectious diseases;</p> <ul style="list-style-type: none"> -interpret the results of the examination, make a preliminary diagnosis, 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, to use methods of non-drug treatment, to carry out rehabilitation measures. |
| | owns | <p>interpretation of the results of laboratory, instrumental diagnostic methods with infectious disease;</p> <p>algorithm for making a preliminary diagnosis with subsequent referral to additional examination and to doctors-specialists;</p> |

| | | |
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| | | an algorithm for making a detailed clinical diagnosis for patients; an algorithm for performing basic medical diagnostic and therapeutic measures to provide first aid in case of urgent and life-threatening conditions in infectious diseases. |
| PC-6 ability to determine the main pathological conditions, symptoms, disease syndromes, nosological forms in patients in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision. | Knows | <ul style="list-style-type: none"> -clinical picture, course features and possible complications of the most common infectious diseases; -modern classification of infectious diseases; criteria for the diagnosis of infectious diseases; - etiology, epidemiology, pathogenesis of tuberculosis; - clinical picture, course features and possible complications of tuberculosis occurring in a typical form in different age groups; |
| | Can | <p>determine the main pathological conditions, symptoms, disease syndromes, nosological forms in patients;</p> <p>formulate a topical diagnosis; make preliminary and final diagnoses reflecting the etiology, course, nature and degree of dysfunction;</p> <p>outline the scope of additional studies to clarify the diagnosis and obtain a reliable result.</p> |
| | owns | <p>an algorithm for a detailed clinical diagnosis; interpretation of the results of laboratory and instrumental diagnostic methods;</p> <p>algorithm for making a preliminary diagnosis of a patient with suspected tuberculosis</p> |
| PC 8 - the ability to determine the tactics of managing patients with various nosological forms. | Knows | <p>methods of treatment of patients with infectious diseases;</p> <p>the mechanism of action of the main groups of drugs; medical indications and contraindications to their use; complications caused by their use;</p> <p>basic principles of diagnosis, treatment and rehabilitation of patients with tuberculosis, indications for hospitalization;</p> <p>rules for the collection of pathological materials from the patient;</p> <p>implementation of specific and non-specific prevention of tuberculosis;</p> |
| | Can | <p>develop a plan of therapeutic measures for various infectious diseases;</p> <p>choose an individual type of care for the treatment of the patient in accordance with the situation: primary care, ambulance, hospitalization;</p> <p>formulate indications for the chosen method of treatment, taking into account etiologic and pathogenetic agents, justify pharmacotherapy in a particular patient with major pathological syndromes, determine the route of administration, regimen and dose of drugs;</p> |

| | | |
|--|------|---|
| | | carry out the appointment of drug therapy for children, taking into account the clinical picture of the disease; determine the indications for outpatient treatment and hospitalization of a patient with tuberculosis |
| | owns | the ability to determine the tactics of managing patients with various nosological forms; algorithm for the implementation of therapeutic measures to provide first aid in emergency and life-threatening conditions. |

ANNOTATION

Discipline Oncology, radiation therapy «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 6th year in the 12th semester. The total labor intensity of the discipline is 144 hours, 4 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-4 - the ability and willingness to implement ethical and deontological principles in professional activities

OPK-8 - readiness for the medical use of drugs and other substances, and their combinations in solving professional problems

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

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;

PC-16 - readiness for educational activities to eliminate risk factors and develop healthy lifestyle skills

The purpose 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 universal and general cultural and professional competencies:

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|---|
| readiness for the medical use of drugs and other substances, and their combinations in solving professional problems (OPK-8); | Knows | Basic principles of surgical, chemotherapeutic, radiation and symptomatic treatment of cancer patients. |
| | Can | Determine the tactics of treating cancer patients at various stages of the pathological process. |
| | owns | Skills in working with guidelines, standards that define approaches to the treatment of cancer patients |
| 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); | Knows | General and special research methods in patients suffering from cancer. |
| | Can | Get information about the development and course of the disease; apply objective methods of examination of the patient, identify general and specific signs of the disease; assess the severity of the patient's condition; determine the need and sequence of application of special research methods (laboratory, radiological, endoscopic, functional), interpret the data obtained from patients suffering from cancer. |
| | owns | Developed skills to diagnose and provide primary health care patients suffering from cancer |

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|---|
| 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-6) | Knows | Main pathological symptoms and syndromes of oncological diseases, their main forms, principles of clinical classification, principles of diagnosis of oncological disease. |
| | Can | To identify pathological symptoms and syndromes of oncological diseases of various localization, to formulate a clinical diagnosis of oncological diseases |
| | owns | The skill of diagnostic search for symptoms and syndromes characteristic of oncological diseases of various localizations, making a clinical diagnosis of oncological diseases. |
| the ability to determine the tactics of managing patients with various nosological forms (PC-8); | Knows | Fundamentals of management tactics for patients with cancer. |
| | Can | Use guidelines and standards to identify possible approaches to the treatment of cancer patients. |
| | owns | Skills to work with guidelines and standards to identify possible approaches to the treatment of cancer patients |

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 that are correlated with the labor functions of a doctor:

- on examination of patients in a condition requiring emergency and urgent care;
- to carry out preventive measures, sanitary and educational work to prevent conditions requiring emergency medical care; 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;

- for cardiopulmonary resuscitation and defibrillation in case of cardiac arrest under simulated conditions (on a mannequin).

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

| Code and wording of competence | Stages of competence formation | |
|---|---------------------------------------|---|
| OPK-11 readiness for the use of medical devices provided for by the procedures for the provision of medical care | Knows | main parameters and characteristics of specialized equipment and medical devices used to diagnose patient conditions requiring emergency medical care |
| | Can | use specialized equipment and medical products for cardiopulmonary resuscitation and defibrillation in case of cardiac arrest, to provide emergency care for injuries, fractures, bleeding |
| | owns | methods of using specialized equipment and medical devices for cardiopulmonary resuscitation and emergency care. |
| 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 | Knows | etiology, pathogenesis, pathomorphological, clinical picture, course, outcome of emergency and urgent conditions requiring emergency medical care; diagnostics and differential diagnostics of the main emergency and urgent syndromes and diseases; operating procedures for the provision of medical care |
| | Can | diagnose and provide medical care for the following life-threatening conditions in accordance with the current procedures for the provision of medical care |
| | owns | method of examination of patients with conditions requiring emergency and urgent care in order to establish a nosological or syndromic diagnosis 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 |

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 216 hours, 6 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 basic 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);

The purpose and objectives of the discipline:

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 general professional and professional competencies (elements of competencies):

| Code and wording competencies | Stages of competence formation | |
|---|---------------------------------------|---|
| OPK-3the ability to use the basics of economic and legal knowledge in professional activities | Knows | Fundamentals of economic and legal knowledge in professional activities |
| | Can | Use legal documentation and planning methods for organizing professional activities in a medical organization |
| | owns | Knowledge of regulatory documents and methods of economic analysis for use in calculating the performance of medical organizations |
| GPC-6 Readiness to maintain medical records | Knows | Standards adopted in healthcare, technical regulations, standards, orders, recommendations, terminology, current classifications for high-quality medical records |
| | Can | conduct a statistical assessment of their work and the activities of a medical organization using accounting and reporting medical documentation |
| | owns | Skills in maintaining medical records at all stages of medical and preventive work |

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| PC-4 Ability and readiness to use social and hygienic methods for collecting and medical and statistical analysis of information on the state of health of the population | Knows | Modern trends in the health status of the population and methods for its assessment; the regulatory framework for recording certain groups of diseases, the main accounting and reporting forms that consolidate indicators of the state of health of the population |
| | Can | Conduct and analyze the health status of the population and individual groups using special medical and demographic indicators, develop measures to strengthen and preserve it |
| | owns | Skills in calculating indicators and evaluating medical and statistical information, skills in developing measures to strengthen and preserve the health of the population |
| PC-17 Ability to apply the basic principles of organization and management in the field of protecting the health of citizens, in medical organizations and their structural divisions | Knows | Fundamentals of the legislation of the Russian Federation on the organization of the activities of medical organizations, the principles of financing budgetary medical organizations; system of organization of medical insurance; issues of managerial and economic activities of medical organizations, including the basics of competition and pricing in the medical services market. |
| | Can | Assess the volume, quality and costs of medical institutions for the provision of medical care, use economic methods to assess its effectiveness and plan the activities of a medical organization. |
| | owns | Methods for calculating volume, quality and cost indicators and indicators of the economic efficiency of medical care, developing measures to improve it; skills in making managerial decisions, financial and organizational planning. |
| PC-18 Willingness to participate in assessing the quality of medical care provided using basic medical and statistical indicators | Knows | Basic legal documents for assessing the quality of medical care; levels, types and methods of assessing the quality of medical services, criteria for assessing the quality of resources, the process and result of medical care |
| | Can | Evaluate and analyze the results of the work of a medical organization, a separate unit, an individual employee |
| | owns | Methods for calculating volumetric and qualitative indicators of the activities of a medical organization, unit, individual employee; skills in developing measures to improve the quality of medical care |

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

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 as a compulsory discipline, is implemented in the 5th year in the 9th semester. The total labor intensity of the discipline is 144 hours, 4 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;

The purpose 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 general professional and professional competencies:

| | Stages of competence formation | |
|---|---------------------------------------|--|
| readiness for the medical use of drugs, other substances and their combinations in solving professional problems (OPK-8); | Knows | Blood preparations and components, blood substitutes and other means of infusion-transfusion therapy, indications, contraindications for their use, methods of administration, efficacy criteria, possible complications, methods for preventing and treating complications of ITT |
| | Can | Apply means of infusion-transfusion therapy for the correction of circulatory disorders, acid-base balance and water-salt metabolism. |
| | owns | Methods of infusion-transfusion therapy to address issues of correction of circulatory disorders, acid-base balance and water-salt metabolism. |
| readiness to collect and analyze the patient's complaints, his medical | Knows | General and special research methods in the main sections of medicine inpatients requiring infusion-transfusion therapy |

| | Stages of competence formation | |
|--|---------------------------------------|---|
| 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); | Can | Get information about the development and course of the disease; apply objective methods of examination of the patient, identify general and specific signs of the disease; assess the severity of the patient's condition; determine the need and sequence of application of special research methods (laboratory, radiological, endoscopic, functional), interpret the data obtained from patients requiring infusion-transfusion therapy |
| | owns | Developed skills to diagnose and provide qualified assistance patients in need of infusion-transfusion therapy |
| the ability to determine the tactics of managing patients with various nosological forms (PC-8); | Knows | Fundamentals of management tactics for patients in need of infusion-transfusion therapy. |
| | Can | To draw up a program of infusion-transfusion therapy for various pathological conditions. Determine the indications for infusion-transfusion therapy. |
| | owns | Knowledge, in order to establish a diagnosis, prescribe and conduct the necessary infusion-transfusion therapy for various pathological conditions; |
| 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); | Knows | Means of infusion therapy and the mechanism of action for the treatment 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 |
| | Can | Use ITT funds for the treatment 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 |
| | owns | Skills in the use of ITT for the treatment 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 |
| readiness to participate in the provision of emergency medical care in conditions requiring | Knows | Fundamentals of emergency medical care in conditions requiring urgent medical intervention, including post-transfusion reactions and complications of infusion-transfusion therapy |

| | Stages of competence formation | |
|--------------------------------------|---------------------------------------|--|
| urgent medical intervention (PC-11); | Can | Provide emergency medical care for conditions requiring urgent medical intervention, including post-transfusion reactions and complications of infusion-transfusion therapy |
| | owns | Skills in providing emergency medical care in conditions requiring urgent medical intervention, including post-transfusion reactions and complications of infusion-transfusion therapy |

ANNOTATION

Discipline «Medical Rehabilitology» is intended for students studying under the educational program 05/31/01 "General Medicine", is included in the variable part of the curriculum as a compulsory discipline, 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 basic 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);

The purpose 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 study rehabilitation and prevention of disability;
- teaching students the ability to choose means and methods rehabilitation and prevention of disability;
- the formation of students' practical skills related to the organization rehabilitation and prevention of disability.

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

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| Code and wording of competence | Stages of competence formation |
|--------------------------------|--------------------------------|

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| readiness for the medical use of drugs, other substances and their combinations in solving professional problems (OPK-8); | Knows | List of main drugs and other substances and their combinations. |
| | Can | Carry out treatment of patients with the most common diseases of internal organs and rehabilitation measures |
| | owns | Modern methods of rational, individualized pharmacotherapy |
| -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 | Principles occurrence and (or) spread of diseases, their early diagnosis, identification of the causes and conditions of their occurrence and development, |
| | Can | Implement a set of measures aimed at maintaining and strengthening health |
| | owns | Implementation skills measures aimed at maintaining and strengthening health |
| -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); | Knows | History taking methods and interpretation laboratory, instrumental, pathoanatomical and other studies |
| | Can | Rate results anamnesis data, examination results, laboratory, instrumental, pathoanatomical and other studies |
| | owns | Assessment skills anamnesis data, examination results, laboratory, instrumental, pathoanatomical and other studies |
| the ability to determine the tactics of managing patients with various nosological forms (PC-8); | Knows | Nosological forms of diseases, tactics of managing patients with various diseases |
| | Can | Provide necessary medical assistance and rehabilitation measures in case of various nosological forms |
| | owns | skills in providing medical care and rehabilitation measures in case of various nosological forms |
| willingness to train patients and their relatives in basic hygiene measures of a health-improving nature, self-control skills of basic physiological indicators that | Knows | basic rules of hygienic measures of a recreational nature |
| | Can | realize health-improving hygiene measures |

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| contribute to the preservation and promotion of health, disease prevention (PC-14) | owns | skills training patients and their relatives in basic hygienic measures of a health-improving nature, self-control skills of basic physiological indicators, |
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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 as a compulsory discipline, is implemented in the 6th year in the C semester.

The total labor intensity of mastering the discipline is 3 credits, 108 hours. The curriculum provides for lectures (18 hours), practical classes (52 hours), independent work of the student (38 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.

The course program is based on the basic knowledge gained by students:
ability for abstract thinking, analysis, synthesis (OK-1);
readiness for the medical use of drugs, 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 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 spa treatment (PC-14)

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, pharmacoconomics, pharmacoepidemiology).

- formation of ideas about the sections of clinical pharmacology that regulate the rational choice of drugs: evaluation of efficacy and safety, drug formulary, pharmacoconomics, pharmacoepidemiology.

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

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|---|
| GPC-8 - readiness for the medical use of drugs, other substances and their combinations in solving professional problems; | Knows | Typical pathological processes in the human body and mechanisms of their development |
| | Can | Explain changes in the patient's body based on knowledge of typical pathological processes. |
| | owns | The skills of interpreting disorders in the patient's body to explain the correction of existing disorders |
| PC-14 - readiness 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 spa treatment. | Knows | <ul style="list-style-type: none"> - current problems and trends in the development of pharmacology; - theoretical and methodological foundations of pharmacology; - rules for prescribing drugs in various dosage forms |
| | Can | - to explain the mechanisms of occurrence of the main pathological processes; |
| | owns | - methodology for processing pharmacological, diagnostic information using modern computer technologies; |

ANNOTATION

The discipline "Forensic Medicine" is intended for the direction 31.05.01 "General Medicine", the labor intensity is 4 credit units, which corresponds to 144 academic hours. The discipline "Forensic Medicine" is included in the basic part of the curriculum.

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.

The purpose 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).

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|---|
| 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 | Knows | – legal regulation of the production of a forensic medical examination, the rights, duties and responsibilities of an expert; – principles, structure and system for organizing the production of forensic medical examination in the Russian Federation, the work of the units of the Bureau of Forensic Medical Examination; |
| | Can | – conduct an expert analysis of the circumstances of the incident based on the case materials and medical documents |
| | owns | - the skill of describing injuries, resolving the issue of their in vivo (posthumous) formation, prescription, sequence and mechanisms of infliction; - The ability to properly maintain medical records. |
| PC-6 ability to determine the main pathological conditions, symptoms, disease syndromes, nosological forms in patients in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision | Knows | main pathological conditions, symptoms, syndromes of diseases |
| | Can | determine the main pathological conditions, symptoms, syndromes of the disease in patients |
| | owns | the skill of determining the main nosological forms in patients in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision |
| PC-7 readiness to conduct an examination of temporary | Knows | signs of human biological death |
| | Can | ascertain the biological death of a person |

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| disability, participate in a medical and social examination, ascertain the biological death of a person | owns | the skills of ascertaining the biological death of a person |
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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.

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|---|
| OK-6 the ability to use the methods and means of physical culture to ensure full-fledged social and professional activities | Knows | Features of the use of various types of physical activity for personal and professional development, the formation of a healthy lifestyle and lifestyle. |
| | Can | Creatively use a variety of means and methods of physical culture to maintain and strengthen health, increase efficiency, physical improvement. |
| | owns | Various forms and types of physical culture activities for personal and professional self-improvement by the values of personal physical culture for successful socio-cultural and professional activities. |

ANNOTATION

The discipline "Reproductive Health" is intended for students enrolled in the educational program 30.05.01 "General Medicine".

The discipline is implemented on the 6th year, it is an elective 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);

The purpose and objectives of the discipline:

The purpose of the discipline:

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.

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

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|--|
| 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 maintaining reproductive health |
| | owns | ethical and deontological principles in the presentation of sexual hygiene and the fundamentals of human reproductive health |
| readiness for the medical use of drugs, 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 of environmental factors on human health (PC-1); | Knows | anatomical and physiological features of the female body, the main sexually transmitted infections, methods of protection from unwanted pregnancy and sexual infections, the basics of marriage hygiene |
| | Can | recommend measures aimed at preserving reproductive health and preventing sexually transmitted infections |
| | owns | a methodology for implementing a set of measures aimed at maintaining 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 "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

Discipline «Roentgenology, Radiodiagnostics» 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 6th 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 basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems

The purpose 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 radiation examination, examine the patient using radiography, echography, master the concepts and interpret the data obtained from 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 general professional and professional competencies:

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|---|
| the ability to assess morphofunctional, physiological conditions | Knows | The structure and functioning of the human body in normal and pathological conditions, revealed by medical imaging methods. |

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|--|
| and pathological processes in the human body to solve professional problems (OPK-9) | Can | Using medical imaging methods to determine the structure and function of the organs of the human body in normal and pathological conditions. |
| | owns | The basics of defining structure and function organs of the human body in normal and pathological conditions, detected by medical imaging methods. |
| 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); | Knows | General and special research methods in the main sections of therapy; fundamentals of the use of ultrasound and methods of radiation diagnostics in various branches of medicine. |
| | Can | Get information about the development and course of the disease; identify general and specific radiological and ultrasound signs of the disease; assess the severity of the patient's condition; determine and interpret the received data. |
| | owns | Skills to establish a diagnosis based on the results of X-ray and ultrasound methods for the most common therapeutic diseases; |
| 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-6) | Knows | Physical and technical bases of radiation diagnostics. Technologies for obtaining images of biological tissues and organs, methods of radiation examination, rules for preparing a patient, basic accesses, scanning modes. Possibilities of methods of radiation diagnostics in modern clinical practice. |
| | Can | Distinguish between a normal picture and anatomical and physiological indicators of radiography - and sonography of organs and images typical of common diseases. Interpret radiographs and sonograms in typical pathological processes and evaluate the conclusion of a radiology specialist |
| | owns | Diagnosis skills based on X-ray and ultrasound data research methods |

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 6th 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 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 the discipline, students form the following general professional and professional competencies (elements of competencies).

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|---|
| the ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems (OPK-9) | Knows | The structure and functioning of the human body in normal and pathological conditions, detected by laboratory diagnostics. |
| | Can | Using methods of laboratory diagnostics, to determine the structure and function of the organs of the human body in normal and pathological conditions. |
| | owns | The basics of defining structure and function organs of the human body in normal and pathological conditions, detected by laboratory diagnostics. |
| 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); | Knows | General and special research methods in the main sections of therapy; Fundamentals of laboratory diagnostics in various branches of medicine. |
| | Can | Get information about the development and course of the disease; identify general and specific signs of the disease; assess the severity of the patient's condition; determine and interpret the received data. |
| | owns | Skills to establish a diagnosis based on the results of laboratory diagnostics in the most common therapeutic diseases; |
| the ability to determine the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification | Knows | Fundamentals of laboratory diagnostics. Possibilities of laboratory diagnostic methods in modern clinical practice. |

| Code and wording of competence | Stages of competence formation | |
|--|---------------------------------------|---|
| of Diseases and Related Health Problems, X revision (PC-6) | Can | Distinguish the results of laboratory diagnostics, typical for common diseases. Interpret the results of laboratory diagnostics in typical pathological processes |
| | owns | Skills in establishing a diagnosis according to laboratory diagnostics |

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" 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 "Clinical biochemistry of biological fluids ", "Forensic Medicine", "Hospital Surgery, Pediatric Surgery", "Hospital Therapy, Endocrinology", "Reproductive health of men and women".

The purpose and objectives of the discipline:

Target to 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 institutions health and cost 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 (elements of competencies).

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|---|
| GPC-7 - readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems | Knows | main metabolic pathways of amino acids, proteins, carbohydrates, lipids, nucleotides, nucleic acids and the main disorders of their metabolism in the human body |
| | Can | evaluate the information content of various biochemical determinations for blood and urine tests in certain pathological conditions (diabetes mellitus, pathology of the liver, kidneys, heart) |
| | owns | skills for solving biochemical and professional problems. |
| PC-2 - the ability and readiness to conduct preventive medical examinations, medical examinations and dispensary observation | Knows | principles of biochemical analysis and clinical and biochemical laboratory diagnosis of diseases |
| | Can | use measuring equipment when performing biochemical studies |
| | owns | the skills of making a preliminary diagnosis based on the results of a laboratory examination of patients |
| PC-21 - the ability to participate in scientific research | Knows | basics of subject search in information, bibliographic resources, biomedical terminology. |
| | Can | find literature describing open questions in the field of modern laboratory diagnostics |
| | owns | methods of searching for scientific information in the NCBI databases. |
| PC-22 - readiness to participate in the introduction of new methods and techniques aimed at protecting the health of citizens | Knows | Modern diagnostic methods and their significance for medical practice |
| | Can | Analyze data from clinical and laboratory studies, link their results with the clinical picture in a particular patient. |
| | owns | The skill of interpreting data from clinical and laboratory studies, in connection with the clinical picture in a particular patient. |

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 Biochemistry of Biological Fluids», «Biochemistry of pathological processes», «Clinical and laboratory diagnostics», «Immunology".

The purpose 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 general professional and professional competencies:

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|---|
| GPC-7 - readiness to use the basic physical, chemical, mathematical and other natural science concepts and methods in solving professional problems; | Knows | <ul style="list-style-type: none"> – place and role of molecular modeling in medicine; – basic concepts, definitions, methods and approaches used in molecular genetic research in medicine; – fields of application of molecular genetic technologies in pharmacology and clinical medicine; – biomedical problems solved by molecular genetic modeling approaches |
| | Can | – Formulate the tasks of molecular genetic research in medicine |
| | owns | The conceptual apparatus, and the basics of the organization of molecular genetic research in medicine |
| PC-2 - the ability and readiness to conduct preventive medical examinations, medical examinations and dispensary observation | Knows | Fundamentals of organizing medical examinations for the purpose of genetic research |
| | Can | Organize medical examinations for the purpose of genetic research |
| | owns | The skill of organizing medical examinations for the purpose of genetic research |
| PC-21 - ability to participate in scientific research | Knows | Techniques for setting up and using technologies for conducting molecular genetic research in medicine |
| | Can | Plan molecular genetic research in medicine; |
| | owns | The skill of planning molecular genetic research in medicine; |

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, 11th 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 2 credits, 72 hours. The curriculum provides for 18 hours of lectures, 28 hours of practical training and independent work of the student - 26 hours, credit in the 11th 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, health economics.

In addition, the study of the discipline creates the basis for the subsequent implementation of the student's research work (R&D).

The purpose 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.

IN result study given disciplines at students

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

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|--|
| GPC-5 the ability and willingness to analyze the results of their own activities to prevent professional errors | Knows | Ways of analysis, finding a problem, designing an 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 |
| | Can | 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. |
| | owns | Methods for analyzing the results of one's own activities to prevent professional mistakes: possession of various managerial functions: planning, organization, regulation, monitoring and controlling, the ability to consciously choose the optimal strategy, etc. |
| PC-20 readiness for the analysis and public presentation of medical information based on evidence-based medicine | Knows | The essence of evidence-based medicine; types of scientific sources of information; ways of evaluating scientific sources of information; algorithm for compiling a monographic and review abstract; features of the scientific text and requirements for its design; ways of representing numerical information |
| | Can | Analyze and evaluate information from scientific sources; compose a monographic and review essay on the research topic; analyze ways of presenting numerical data in terms of speed of perception, volume of data, consistency; use text and graphics editors to |

| | | |
|---|-------|---|
| | | present research results; - create a presentation for the report on the results of the study. |
| | owns | Skills for the design of a scientific text; - skills to determine the type of numerical data; skills in choosing the best way to present numerical data using different types of tables and charts |
| PC-21 ability to participate in scientific research | Knows | The essence of research activities in medicine and health care; 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. |
| | Can | Plan scientific medical research; Anticipate the occurrence of errors in the results of scientific medical research and take measures to minimize them. |
| | owns | 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. |
| PC-22 readiness to participate in the introduction of new methods and techniques aimed at protecting the health of citizens | Knows | Norms of international law, the main provisions of the legal documents of the Russian Federation governing research activities in medicine and health care, as well as work on the practical use and implementation of the results of scientific medical research; nature and classification of costs associated with medical intervention; types of effectiveness of medical activities, their essence and content; - features of clinical and economic research |
| | Can | Evaluate medical interventions in terms of cost-benefit ratio |
| | owns | Clinical and economic analysis skills |

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, 11th 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 2 credits, 72 hours. The curriculum provides for 18 hours of lectures, 28 hours of practical training and independent work of the student - 26 hours, credit in the 11th semester.

Purpose and objectives of the course:

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.

IN result study given disciplines at
 students

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

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|--|
| GPC-5 the ability and willingness to analyze the results of their own activities to prevent professional errors | Knows | Ways of analysis, finding a problem, designing an 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 |
| | Can | 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. |
| | owns | Methods of analyzing the results of one's own activities to prevent professional mistakes: possession of various managerial functions: planning, organization, regulation, monitoring and controlling, the ability to consciously choose the optimal strategy, etc. |
| PC-20 readiness for the analysis and public presentation of medical information based on evidence-based medicine | Knows | The essence of evidence-based medicine; types of scientific sources of information; ways of evaluating scientific sources of information; algorithm for compiling a monographic and review abstract; features of the scientific text and requirements for its design; ways of representing numerical information |
| | Can | Analyze and evaluate information from scientific sources; compose a monographic and review essay on the research topic; analyze ways of presenting numerical data in |

| | | |
|---|-------|---|
| | | terms of speed of perception, volume of data, consistency; use text and graphics editors to present research results; - create a presentation for the report on the results of the study. |
| | owns | Skills for the design of a scientific text; - skills to determine the type of numerical data; skills in choosing the best way to present numerical data using different types of tables and charts |
| PC-21 ability to participate in scientific research | Knows | The essence of research activities in medicine and health care; 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. |
| | Can | Plan scientific medical research; Anticipate the occurrence of errors in the results of scientific medical research and take measures to minimize them. |
| | owns | 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. |
| PC-22 readiness to participate in the introduction of new methods and techniques aimed at protecting the health of citizens | Knows | Norms of international law, the main provisions of the legal documents of the Russian Federation governing research activities in medicine and health care, as well as work on the practical use and implementation of the results of scientific medical research; nature and classification of costs associated with medical intervention; types of effectiveness of medical activities, their essence and content; - features of clinical and economic research |
| | Can | Evaluate medical interventions in terms of cost-benefit ratio |

| | | |
|--|------|---|
| | owns | Skills in the use and implementation of new methods and techniques aimed at protecting the health of citizens. Ways to apply the methods of expert assessments and forecasting innovative solutions |
|--|------|---|

ANNOTATION

The discipline "Reproductive Health" is intended for students enrolled in the educational program 30.05.01 "General Medicine".

The discipline is implemented on the 6th year, it is an elective 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);

The purpose and objectives of the discipline:

The purpose of the discipline:

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:

8. Teaching students anatomical and physiological characteristics of the female body.
9. Familiarize yourself with the basics of human reproduction
10. Give the concept of the basics of human reproductive health
11. To instill the basics of hygiene of sex and sexual life
12. Familiarize yourself with modern methods of contraception.
13. Educate on the prevention of sexually transmitted infections.
14. As a result of studying this discipline, students form the following general professional and professional competencies:

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|--|
| 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 maintaining reproductive health |
| | owns | ethical and deontological principles in the presentation of sexual hygiene and the fundamentals of human reproductive health |
| readiness for the medical use of drugs, 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 of environmental factors on human health (PC-1); | Knows | anatomical and physiological features of the female body, the main sexually transmitted infections, methods of protection from unwanted pregnancy and sexual infections, the basics of marriage hygiene |
| | Can | recommend measures aimed at preserving reproductive health and preventing sexually transmitted infections |
| | owns | a methodology for implementing a set of measures aimed at maintaining 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 "Reproductive Health" the following methods of active / interactive learning are used:

4. It is planned to conduct practical classes using computer training programs.
5. Conducting interactive role-playing games to develop the skills of presenting material on hygiene of sex and sexual life and skills of counseling patients.
6. 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, it is an elective 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);

The purpose and objectives of the discipline:

The purpose of the discipline:

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:

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|---|
| 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, 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 "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 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 purpose 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 general professional and professional competencies (elements of competencies).

| Code and wording of competence | Stages of competence formation | |
|--|--------------------------------|---|
| GPC-8 Readiness for medical use of medicinal substances and their combinations in solving professional problems | Knows | Principles etiological, pathogenetic, symptomatic and surgical treatment of major diseases of the central nervous system and peripheral nervous system. |
| | Be able to | Prescribe pathogenetic therapy and surgical treatment, taking into account the etiology of the disease with the use of drug therapy in patients in need of medical rehabilitation. |
| | Own | Treatment methods |
| PC-5 Readiness to 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 | Knows | The methodology for collecting and analyzing 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 in patients in need of neurosurgical care. |
| | be able to | Examine the patient using m basic and additional methods, outline the scope of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result |
| | own | Skill in general clinical examination, proper medical record keeping |
| PC6 The ability to determine the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International | Knows | Principles of determination in patients' main pathological conditions, symptoms, syndromes of diseases, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision. |
| | can | Assign to identify symptoms and syndromes in patients, form a diagnosis in accordance with the established nosological forms and International |

| | | |
|---|-------|--|
| Statistical Classification of Diseases and Related Health Problems, X revision. | | Statistical Classification of Diseases and Related Health Problems, X revision |
| | owns | The skill of identifying symptoms and syndromes in patients, forming a diagnosis in accordance with established nosological forms and International Statistical Classification of Diseases and Related Health Problems, X revision |
| PC8 Ability to determine the tactics of managing a patient with various nosological forms | Knows | Principles of etiological, pathogenetic, symptomatic and surgical treatment of major diseases of the central nervous system and peripheral nervous system. |
| | can | Prescribe pathogenetic therapy taking into account the etiology of the disease in patients with underlying diseases of the central nervous system and peripheral nervous system |
| | owns | Methods of providing medical care to patients with major diseases of the central nervous system and peripheral nervous system |

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).

The purpose 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 general cultural and general professional competencies.

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|---|
| OPK-2 Willingness to communicate in oral and written forms in Russian and foreign languages to solve the problems of professional activity | Knows | basics of communication, principles and methods of organizing communication in Russian and foreign languages |
| | Can | create and edit texts for scientific and professional purposes; abstract and annotate information; create communication materials; organize the negotiation process, including using modern means of communication in Russian |
| | owns | business and public communication skills. Basic grammatical structures of scientific and colloquial language |
| PC -20 willingness to analyze and publicly present medical information based on evidence-based medicine | Knows | Ways of public presentation of medical information in Russian |
| | Can | Make a report, message, presentation in Russian |
| | owns | Public speaking skills in Russian |

ANNOTATION

The discipline "Medical Genetics" is intended for students enrolled in the educational program 30.05.01 "General Medicine".

The discipline is implemented in the 4th year, is and optional 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 36 hours, 1 credit unit.

The purpose 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.

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

OK-1 - 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

OK-5 - 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

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

| Code and wording of competence | Stages of competence formation | |
|---|--------------------------------|--|
| GPC-8 Readiness for medical use of medicinal substances and their combinations in solving professional problems | Knows | Principles etiological, pathogenetic, symptomatic treatment of major hereditary diseases |
| | Be able to | Prescribe pathogenetic therapy taking into account the etiology of the disease with the use of drug therapy in patients in need of medical rehabilitation. |
| | Own | Treatment methods |
| PC-5 Willingness to collect and analyze the patient's complaints, his medical history data. The results of the examination, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of the disease | Knows | 1. Maintaining a standard accounting and reporting medical documentation in medical organizations 2. Fundamentals of preventive medicine, the organization of preventive measures aimed at improving the health of the population |
| | Be able to | 1. Plan, analyze and evaluate the quality of medical care, the state of health of the population and the impact of environmental and industrial factors on it 2. Assess social factors affecting the patient's physical and psychological health: cultural, ethnic, religious, individual, family, social risk factors; make a preliminary diagnosis - synthesize information about the patient in order to determine the pathology and its causes; 3. To outline the scope of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result |
| | Own | 1. Correct maintenance of medical records 2. Methods of general clinical examination |
| 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. | Knows | Principles of etiological, pathogenetic, symptomatic treatment of major diseases of the central nervous system and peripheral nervous system. Provision of emergency and urgent care, indications and contraindications for the appointment of therapeutic measures, evaluation of treatment results |
| | Be able to | Prescribe pathogenetic therapy taking into account the etiology of the disease |
| | Own | Treatment methods |
| PC8 Ability to determine the tactics of managing a patient with | Knows | Principles of etiological, pathogenetic, symptomatic treatment of major diseases of the central nervous system and peripheral nervous system. Provision of emergency and urgent care, indications and |

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| various nosological forms | | contraindications for the appointment of therapeutic measures, evaluation of treatment results |
| | Be able to | Prescribe pathogenetic therapy taking into account the etiology of the disease |
| | Own | Treatment methods |

ANNOTATION

The discipline " 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 English.

Course purpose:

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.

Objectives:

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 deformities 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:

| 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 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 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 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-6.3 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 |
| | PC-7 Ready to prescribe medicines, medical devices and medical nutrition, taking into account the diagnosis, age and clinical picture of the | 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 |

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| | 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 | 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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| 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, 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 |
| | Able to prioritize 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 |
| | 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 |
| PC-5.4 Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis | Knows the International Statistical Classification of Diseases and Related Health Problems (ICD) and the methodology for making a diagnosis using it. |
| | Can use the International Statistical Classification of Diseases and Related Health Problems (ICD) to make a diagnosis |
| | Owens the skill of self-applying to diagnose 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, 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 | Knows the 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 |
| | Able to 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 care for patients with diseases of the maxillofacial region |
| | Has the skill of drawing 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 for patients with diseases of the maxillofacial areas |

| | |
|--|---|
| 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 | Knows the 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. |
| | Able to 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 help |
| | Possesses the skill of self-prescribing 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 health care standards |

ANNOTATION

The discipline "Preventive medicine" is designed for students studying on the educational program 31.05.01 "General Medicine". The total labor capacity of the discipline is 36 hours, 1 credit unit. "Preventive medicine" is an elective discipline, implemented on the 6th year, semester C and ends with credit. The curriculum foresees 8 hours of lectures and 28 hours of independent work. The language of the program is Russian. The discipline "Preventive Medicine" has a close relationship with such disciplines as Biochemistry, Microbiology and Virology, Hygiene, Medical Rehabilitation.

Aim:

To study the basics of organizing and conducting preventive activities aimed at improving and preserving public health.

Objectives:

1. study of factor conditioning of population health, the role of lifestyle in the formation of health indicators of the population and systems that ensure the preservation, strengthening and restoration of population health;

2. training in choosing the optimal schemes to form a motivated attitude to preserve and strengthen one's own health and the health of others, to implement recommendations aimed at cultivating elements of a healthy lifestyle;

3. forming skills to study scientific literature and official statistical reviews.

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

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|--|--|
| <p>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</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>Able to formulate medical indications and contraindications to its appointment; side effects, complications caused by its use</p> <p>Possesses the skill of making non-drug treatment; medical indications and contraindications to its appointment; side effects, complications caused by its use</p> |
| <p>PC-13.7</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>Knows the risk factors for the development and progression of major socially significant diseases</p> <p>Able to identify risk factors for the development and progression of major socially significant diseases</p> <p>Able to independently identify risk factors and assess their impact on the development and progression of major socially significant diseases</p> |