# Annotations of academic disciplines and practices working programs

# C.1 HUMANITARIAN, SOCIAL AND ECONOMIC CYCLE

#### **BASIC PART:**

B. 1. 1 "Kyrgyz language and literature" (groups for beginners)

Labor intensity/complexity 6 credits

**Practical classes 90 hours** 

Self-study 90 hours

Type of control credit test

The purpose of the lesson: the innovation of teaching the Kyrgyz language is aimed not only at providing subject information, but also at the possibility of implementing interesting two-way communication; to achieve clear and effective speech in the Kyrgyz language; to speak correctly, convincingly in various life situations encountered in real life, the formation of skills necessary for civilized communication.

#### Tasks:

determining the means of building language materials for teaching; defining the subject matter of text materials used as a language teaching tool, which is the basis for learning language materials; creating opportunities for the preparation of business documents using the communication services of language and orientation, and requesting the correction of various texts and sentences.

Content: Kyrgyz language and literature. Goals and tasks. Kyrgyz language is the official language of the Kyrgyz Republic. Ethno medicine is a branch of medicine that studies the features of the prevention and treatment of diseases. History of the Kyrgyz language. The place of the literary language and dialects. Medical examples in oral folk works. The epic "Manas" is an example of ethno-social memory and a treasure trove of traditional medicine. Rules, norms, patterns of word formation. Medical examples in the traditions, customs, and rituals of the Kyrgyz people. Totem, Shaman, etc. remnants of faith. Word types: simple, complex words. Health benefits and harms of the cradle. Information about the Kyrgyz vocabulary. Circumcision, medical scientific views. The influence of Kyrgyz music on health. The meaning of lyrical songs. Establishment of a high ideological and artistic level of the epics of the Kyrgyz people. Active vocabulary. Health-related prohibitions. Passive vocabulary. The way of life of nomadic peoples, the interpretation of their culture. Polysemy of the word. National cuisine, food hygiene. Homonyms and their differences from polysemantic words. Ways to enrich vocabulary. National games as an object of medical research. Professional vocabulary. National clothing and age psychology. The place of medical terminology in the general vocabulary. Yurta is a house of nomads. Phraseological units. Proverbs related to health. The place of phraseological units in medical communication.

# As a result of mastering the subject "Kyrgyz language and literature" student must know:

- to speak depending on the situation;
- to formulate factual and conceptual questions to the text; be able to:
- form correct speech and writing through language exercises;

- use ethno-cultural vocabulary; master:
- a special vocabulary;
- formation of worldview through the analysis of works/compositions.

# B. 1. 1 "Kyrgyz language and literature" (for advanced groups)

Labor intensity/complexity 6 credits

Practical classes 90 hours

Self-study 90 hours

Type of control credit test

The purpose of the lesson: expansion of students' knowledge and achievement of culture deep assimilation by teaching the basics of linguistic and philological sciences; further deepening of school knowledge, informing about current news in the field of the Kyrgyz language and increasing interest in the artistic word; careful attitude to the art of speech. Express in artistic texts of noble qualities characteristic of Kyrgyz people, character traits, recognition of such values as biographies of famous people, folk traditions and customs, development of national identity; free use of oral and written activities in accordance with life situations through further study of the Kyrgyz language.

**Tasks:** determining the means of building language materials for teaching; defining the subject matter of text materials used as a language teaching tool, which is the basis for learning language materials; creating opportunities for the preparation of business documents using the communication services of language and orientation, and requesting the correction of various texts and sentences.

**Content:** General information about the concept of Ethno medicine. The main sections of linguistics. The place of language in the medical area. History, types of Kyrgyz folk medicine. The epic "Manas" and traditional medicine. The problem of literary language and dialect. Orthoepic norms of the Kyrgyz literary language. The meaning of the spelling norms of the Kyrgyz language. The influence of Kyrgyz music on health. Work on punctuation norms. The way of life of nomadic peoples, the interpretation of their culture. Rules for working with spelling dictionaries. Examples of health-related Kyrgyz traditions, customs, and rituals. Health benefits and harms of the cradle, scientific analysis. Circumcision, health effects. To convey the customs, traditions, songs, proverbs and sayings of the Kyrgyz people, the culture that has developed over the centuries. The meaning of lyrical songs, their impact on health. Analysis of the philosophy related to health. Listening is a huge culture. Acquaintance with the ancient and medieval works of major representatives like Jusup Balasagyn and Mahmud Kashgari. The concept of prohibitions. Examples related to health. The benefits of hospitality, the harm. The place of eloquence in medicine. Verbal, nonverbal means. The specifics of nonverbal means in medicine. Water is a source of health. Office work, rules of writing. Medicinal plants, classification. The procedure for conducting personal affairs. Medicinal plants growing in Kyrgyzstan, the nature of application. Statement, explanatory note, rules of writing. Fauna, species. Writing a description. Kyrgyzstan is a mountainous country. The impact of mountain caves on health. Types of working paper. Working with aromatherapy. Rules for processing official documents. The development of Kyrgyz literature in historical social and cultural conditions in 1925-1929. To note the great contribution to the creation of the Kyrgyz national script, to the formation of orthography, to the Kyrgyz Soviet

literature. Analysis of the works of the Kyrgyz people reflecting difficult times. The poet's poetry differs from the poetry of other poets in its depth, scale, artistic basis, and imagery. Medical science: yesterday, today, tomorrow. A feature of the scientific style.

# As a result of mastering the subject "Kyrgyz language and literature" student must know:

- to speak depending on the situation;
- to formulate factual and conceptual questions to the text; be able to:
- form correct speech and writing through language exercises;
- use ethno-cultural vocabulary; master:
- a special vocabulary;
- formation of worldview through the analysis of works/compositions.

# B. 1. 1 "Russian language"

Labor intensity/complexity 6 credits

Practical classes 90 hours

Self-study 90 hours

Type of control credit test

The purpose of the discipline: Humanization of education in medical universities, improving the speech culture of future doctors, introduction students with the theoretical foundations of speech culture and technology, forming speech culture as one of the aspects of forming the future doctor's language competence.

#### Tasks:

- formation students' general cultural and lingual cultural competencies;
- students ' mastery of the speech culture basic concepts: correctness and communicative qualities of speech, competent speech;
- mastering the correct design of utterances, points of view that are part of the original texts or their fragments, taking into account their stylistically highlighted use;
- mastering the skills to abstract and annotate professionally oriented texts, taking into account different degrees of semantic compression;
- formation of skills to understand and adequately interpret original texts of any subject, including professional orientation, with subtext and conceptual meanings.

**Content:** Language norms. Orthoepical norms. Accentological norms. Spelling standards. Lexical norms. Morphological norms. Gender of substantive nouns. Fluctuations in the case forms of nouns. Use of adjective forms. Spelling of pronouns.

Norms for the use of complex and compound numerals. Verb norms. Use of participles and adverbs in speech. Syntactic norms. A word combination. Options for matching the predicate with the subject. Syntactic and stylistic meaning of word order. Norms for building complex sentences. Official-business style. Scientific style.

# As a result of mastering the discipline "Russian language", the student should know:

Logically correct and well-reasoned construction of the statement; correctwritten speech.

The role of the Russian language in the development of speech activity for mastering professional skills.

Compliance with official regulations.

Norms of official business style and literary norms of speech activity.

In accordance with different types of speech activity, analyze tests, that are characteristic of the scientific style.

#### Be able to:

Use medical terms in speech materials and create scientific tests.

Master the methods of oral and written speech activity, communication in the professional and social spheres.

Analyze and solve important social and personal problems.

Be responsible socially and ethically for the decisions made.

Address social and ethical issues in a deliberate and tolerant manner.

Analyze the results of personal oral and written activities to avoid professional errors.

Decode medical, biological and pharmaceutical terms.

Accurately and correctly reproduce in Russian medical and other business papers based on the results of professional activity.

For active and creative participation in various spheres of scientific life, be able to use language -based practical techniques.

#### **Master:**

Technologies of oral and written speech communication in the official language.

Presentation of research results; public speaking skills at conferences and symposia.

Basic terminology and foreign language vocabulary related to their professional activities.

# B. 1. 2 "Foreign language"

Labor intensity/complexity 4 credits

Practical classes 60 hours

Self-study 60 hours

# Type of control credit test

The purpose of the discipline: is to acquire the communicative competence necessary for crosscultural communication and professional communication, mastering oral and written forms of communication in a foreign language as a means of information activity and further selfeducation.

**Tasks:** formation of language and speech skills that allow to use a foreign language to obtain professionally relevant information, using different types of reading; developing language and speech skills that allow to participate in written and oral professional communication in a foreign language.

Content of the discipline: Introductory and remedial course. Specifics of the articulation of sounds, intonation and rhythm of neutral speech in the studied language, the main features of the full pronunciation style characteristic of the professional communication area, reading transcription. Lexical minimum in the amount of 4000 educational lexical units of general and terminological nature. Basic rules of morphology, the main components of the sentence (the core of the sentence, minor members of the sentence).

The concept of vocabulary differentiation by application areas. The concept of free and stable word combinations. The concept of the main ways of word formation. Grammatical skills that ensure communication without distortion of meaning in written and oral communication and of a professional nature. The main lexical and grammatical features of scientific and professional speech styles. Speaking. Dialogue and monologue speech in the main communicative situations of scientific and professional communication. Fundamentals of public monologue utterance. Listening skills. Fundamentals of medicine: Training in reading and translating medical texts. Basic types of reading. Basic principles and goals of various types of reading: viewing, introduction, search, studying; principles of working with the text in the specialty in accordance with the purpose of information search. Basics of annotation and referencing. Culture, traditions, medical education, health care system in the countries of the language being studied, rules of

speech etiquette, taking into account social -cultural and cross-cultural features of the language and speech. Medical education in Kyrgyzstan. Lexical and grammatical support of the topic. Basic grammatical constructions that are characteristic of the oral style of communication in a foreign language. Medical education abroad. Lexical and grammatical support of the topic. Basic grammatical constructions characteristic of the oral communication style in a foreign language.

# As a result of mastering the discipline "Foreign language», the student should know:

- a minimum of lexical and grammatical material for the correct design of their thoughtsand conduct:
- the history, culture, traditions, and political system of the country of the language being studied;
- The system of medical education and services in the country of the language being studied.

#### Be able to:

- Read aloud clearly and expressively a text containing mostly learned lexical material;
- Understand native speakers 'speech;
- conduct a conversation in the language being studied within the limits of the speech material passed;
- understand and explain the content of the unknown text read;
- understand and explain the content of the text listened to;
- express a value judgment about the information extracted;
- express own opinion about the text you read or listened to, either orally or in writing.

#### **Master:**

- presentation in writing the content of the material read in the form of annotations, summaries, and abstracts; situational conversations;
- preparation and presentation of reports.

# B. 1. 2 "Latin language"

Labor intensity/complexity 4 credits

Practical classes 60 hours

Self-study 60 hours

Type of control exam (I semester)

The purpose of the discipline: professionally oriented training of future doctors in the Latin language and the basics of medical terminology, the formation of the terminological competence basics necessary for professional communication.

# Task of the discipline:

- Teaching students the elements of Latin grammar necessary for understanding and using Latin terms correctly;
- Teaching students the basics of medical terminology in its three subsystems:anatomical, pharmaceutical, and clinical information;
- Formation of students' skills of fast and competent writing of recipes in Latin;
- Formation of students' ability to translate quickly and competently recipes from Russian into Latin and vice versa;
- Formation of students' skills in working with scientific literature and preparingresearch papers;
- Improving the level of literacy of students in oral and written speech.

**Content of the discipline:** Introduction. Latin language is the language of medicine. Alphabet. Rules for pronunciation of certain letters and letter combinations. Noun. Uncoordinated definition. Adjective. Comparative degree of adjectives. Coordinated definition. Structure of a

three-word and multiword anatomical term. Nouns of the 3rd declension. Masculine nouns. Agreed terms. Feminine nouns. Agreed terms. Neuter nouns. Agreed terms. Plural form of nouns and adjectives in nominative case. Uncoordinated and coordinated definition. Plural form of nouns and adjectives in genitive case. Structure of the pharmaceutical term. Frequency segments in trivial drug names. Verb. Prescription phrases with verbs and prepositions. Recipe and its structure. Chemical—pharmaceutical nomenclature. Names of chemical compounds: acids, oxides. Names of salts (medium, acidic, basic). Word formation. The most commonly used Latin prefixes. Greek prefixes and suffixes. Clinical terminology. Greek words and term elements for parts 1-10.

# As a result of mastering the discipline "Latin language», the student should

- basic rules for reading letters and letter combinations, as well as features of pronunciation of Latin sounds;
- elements of Latin grammar; ways of word formation;
- frequency segments that are most commonly used in the names of medicinal substances and preparations;
- recipe structure and design requirements;
- Greek term elements and Greek words; to explain correctly the meaning of clinical terms;
- 900 lexical units as an active vocabulary; the most commonly used Latin expressions and aphorisms.

# Be able to:

- correctly read and write correctly medical (anatomical, clinical, and pharmaceutical) terms in Latin;
- translate two-term and multi-term medical terms from Russian into Latin and from Latin into Russian:
- read and translate prescriptions, formalize them according to the standard model; form names of chemical compounds (oxides, salts, acids) in Latin;
- use Greek roots and term elements, make up clinical terms that denote the names of diseases, pathological conditions, and methods of examination and treatment;
- determine frequency segments in trivial drug names to obtain information about the chemical composition, pharmacological characteristics, and therapeutic effectiveness of the drug.

# Master:

- skills in the design of the Latin part of the doctor's prescription;
- the use of special Latin terminology.

# B. 1. 3 "History of Kyrgyzstan"

Labor intensity/complexity 3 credits

**Lecture 30 hours** 

Practical classes 16 hours

**Self-study 44 hours** 

# Type of control credit test, SFC

**Purposes:** is to provide students with a holistic view of the history of the Kyrgyz and other peoples of Kyrgyzstan, instilling in the younger generation a sense of patriotism and active citizenship, respect for the historical past of the people. The course is formed to provide the medical student with knowledge about the main stages of historical development Kyrgyzstan from ancient times to the present, ethnogenesis and formation of the Kyrgyz nation, to show the continuity of the history of development Kyrgyzstan with the history of world civilizations. Studying the history of Kyrgyzstan is one of the most important means of strengthening interethnic harmony and mutual understanding of the people Kyrgyzstan, patriotic education of

young people.

# Tasks:

- to form an idea of the main historical stages in the formation and development of Kyrgyz statehood:
- to show the organic interrelation of Kyrgyz history with world history on the examples of different epochs;
- to analyze the general and special aspects of the development of the state and society;
- form historical concepts and categories;
- to introduce the basics of the civilizational approach in the analysis of historical events and phenomena;
- develop students 'sense of citizenship and patriotism;
- develop students' skills of independent work and interest in it.

Content of the discipline. The ancient period in the history of the Kyrgyz and Kyrgyzstan. The Turkic era: the main stages of statehood formation. Kyrgyzstan in the period of Chenghis Khan's conquests. The Kyrgyz people in the XVI-XIX centuries. Relations with neighboring nations and states. Kyrgyz and Kokand Khanate. Kyrgyzstan - penal colony Russian Empire (1855-1917). Stages of formation of the Kyrgyz Soviet statehood. The Great Patriotic War. Social-political and social-economic development Kyrgyzstan in the 50s - early 90s of the XX century. Sovereign Kyrgyzstan. Problems of social-political and social - economic development.

# As a result of mastering the discipline "History of Kyrgyzstan" a student should know:

- main historical events, stages of the evolution of statehood and its institutions, features of socialeconomic development,
- specifics of the modernization process,
- foreign policy trends and changes in the geopolitical situation,
- the content of cultural traditions and historical heritage.

#### be able to:

- independently analyze social-political and scientific literature,
- plan and evaluate activities based on this analysis.

#### master:

- skills in presenting own point of view in a reasoned manner;
- skills of public speech, argumentation, introduction of discussion and polemics, critical perception of information.

# B. 1. 3 "History of medicine"

Labor intensity/complexity 1 credit

Lecture 6 hours

**Practical classes 8 hours** 

**Self-study 16 hours** 

# Type of control credit test

**Purposes:** study of the history, patterns and logic of the development of healing, medicine, medical activity and its drug supply in different periods in relation to the present.

# Tasks:

- to show the general laws of the world-historical process of formation and development of healing and medicine in various countries of the world from ancient times to the present day;
- train students to analyze objectively historical phenomena, successes and prospects for the development of medicine and healthcare;
- to reveal the achievements of outstanding civilizations and each epoch in the field of medicine in the context of the progressive development of mankind;

- to show the interaction of national and international factors in the formation of medical science and practice in different regions the world;
- to acquaint students with the life of outstanding scientists and doctors of the world, who determined the fate of medical science and medical activity;
- to inculcate deontological principles of medical activity; to show the peculiarities of the development of medical ethics in various civilizations and countries of the world, the philosophical foundations and historical conditions of their formation;
- train high moral qualities in students: love for profession, loyalty to duty, feelings of humanism and patriotism;
- expand the general scientific and cultural outlook of students.

**Content:** Introduction. Healing in primitive societies and countries The ancient world. Medicine of the ancient world and the Middle Ages. Medicine of modern times and modern history. History of Kyrgyzstan medical development.

# As a result of mastering the discipline "History of medicine" a student should know:

- the main stages and general patterns of the formation and development of healing and medicine in various countries of the world from ancient times to our time;
- distinctive features of the development of healing and medicine in different historical periods (primitive society, ancient world, Middle Ages, modern times and modern history);
- achievements of major civilizations in the field of healing and medicine in the process of progressive development of their spiritual culture;
- the contribution of the world's outstanding doctors who determined the fate of medical science and activity in the history of mankind;

#### be able to:

- analyze historical material and navigate the historical process of progressive development of healing and medicine from the origins to the present;
- understand the logic and regularities of the development of medical thought and activity at various stages of human history and apply this knowledge in their practice;
- constantly improve and deepen their knowledge of the history of the chosen specialty;
- strive to improve cultural level;
- properly follow the ideas of humanism and universal values in their medical work.

#### master

- skills of conducting a scientific discussion on the most important issues of the general history of medicine:
- skills of using in their medical activities and communicating with patients the knowledge of the history of medicine, culture and medical ethics acquired in the course of training.

# B. 1. 4 "Philosphy"

Labor intensity/complexity 4 credits

**Lecture 36 hours** 

Practical classes 24 hours

Self-study 60 hours

# Type of control credit test

**Purposes:** the assimilation of philosophical knowledge is a necessary condition for the formation of a systematic worldview and the development of conceptual and categorical thinking and one of the ways of modern socialization of the individual. The course of philosophy is designed to develop students' ability to think critically, master dialectical thinking, which is the objective basis for the formation of medical, and later clinical thinking. Give the student the necessary information every educated person has a minimum of knowledge about spiritual realities and

philosophical and methodological values. Mastering the proposed program on the basis of comprehension of historical-philosophical and system-problematic material will allow future doctors to form their own philosophical and civic position on the most important issues of modern medicine, as well as the ability to independently comprehend current problems in modern public life.

#### Tasks:

- To acquaint students with the main stages of the development of the theoretical thought of humanity, expressed in philosophy. To reveal the interrelation of philosophical concepts that influenced the formation of medicine as a science, using examples of the life of great, outstanding doctors- thinkers throughout the entire historical development.
- Highlight the moral and medical problems of a general practitioner.
- Introduce students to the Kyrgyz philosophical tradition.
- Education of patriotism, through introduction with the nomadic culture of our ancestors.
- Help us to understand the unique role of philosophy in the development of civilization and humanculture.
- To understand the interaction with other areas of human activity and cultures, especially with medical activities.
- To reveal the interaction and interrelation of philosophy, bioethics, deontology, principles, norms that determine the development of medicine as a special field of human practice throughout the history of all mankind.
- To reveal the continuing relevance of philosophy, its main ideas, problematic reflections, research in the formation and development of a mature human personality, in creating a civilized social -cultural environment, in understanding the contradictions and difficulties of modern human development, and to reveal the content of the category "society" and defining the characteristics of society as a system.
- To reveal the specifics of consciousness as 1) the highest form of reflection of the surrounding reality; 2) properties or functions of highly organized matter (brain) reflect the world in perfect images.
- Define cognition as:1) the form of activity; 2) active, purposeful reflection of the surrounding world in the human mind.
- Moral and ethical orientation of medical university students in the context of the scientific and technological revolution, global progress and civilizational crisis.
- Help students master the categorical apparatus of philosophy, the mastery of which develops the humanitarian and philosophical culture and the ideological position of the future doctor.
- Develop a holistic vision of the world on a rational basis of knowledge.
- Develop students' skills in studying philosophical literature; teach them to work on abstracts on philosophy, taking into account the relevant formal and substantive requirements.

#### **Content:**

Section 1. "History of philosophy", reflection on the formation of theoretical thought of mankind. Philosophy as a way of forming and developing a worldview. Interrelation of philosophy and medicine. Moral orientation of medical art and philosophy in Ancient Cultures of the East. Anthropocentrism of ancient Greek philosophy. Philosophical understanding of medicine in Russia. The ancient era. Formation and development of medical education in theological schools. Theosophical foundations of human health in the Middle Ages. Philosophy of the epoch Revivals, Enlightenment. German Classical philosophy. Philosophy and medicine in this period.

Development of protomedical knowledge and skills of the ancient Kyrgyz people from the stand point of spontaneous materialism.

Section 2. "Ontology and theory of knowledge". Philosophy of life. Information as a state of

matter, information-wave medicine and biology. Philosophical and medical aspects of consciousness, physiological bases of spiritual and psychic phenomena. The problem of the criterion of truth in philosophy and medicine. Dialectics as a science. Synergetics as a method of complex consideration of the concepts of disease and health.

**Section 3. "Social Philosophy"** is a philosophical analysis of society and man.

Medicine as a sphere of universal culture. Global problems of humanity.

# As a result of mastering the discipline "Philosophy", the student should know:

- philosophical aspects: ideological, socially and personally significant problems and processes;
- general concept of man and his multidimensionality;
- general concept of consciousness and self-consciousness;
- the essence and meaning of cognition; fundamentals of social philosophy;
- philosophical foundations of epistemology, methods and techniques of research;
- methods and techniques of philosophical analysis of problems;
- forms and methods of scientific knowledge, their evolution; main categories and concepts of academic discipline;
- basic principles of building oral and written speech, rules of argumentation;
- types of information sources.

#### be able to:

- choose and apply methods and different techniques to solve social and professional problems;
- evaluate the adequacy, effectiveness of humanitarian (philosophical) research methods, sciences in solving social and professional problems;
- be aware of the basic nature of social and humanitarian sciences in solving social and professional problems;
- differentiate the possibilities of different views on the solution of ideological, socially and personally significant philosophical problems;
- perform independently actions to solve non -standard problems that require a choice based on a combination of known methods, in an unpredictably changing situation;
- determine the place, role and significance of worldview, socially and personally significant philosophical problems;
- perceive independently information from various sources: extract and analyze information;
- select notes from various sources;
- compare the presentation of the same questions in different sources, identify commonalities and find differences;
- use reference and additional literature; think critically: find errors in a particular text;
- complete incomplete text material; quote and make various types of comments;
- convert text material: highlight the main thing, shorten the text to several lines without distorting the meaning;
- make a plan, theses; take notes; make a conclusion about the text you read;
- make generalizations, formulate and argue conclusions, understand, evaluate and process the text;
- independently perform actions to solve non-standard problems that require a choice based on a combination of known methods, in an unpredictably changing situation.

#### Master:

- ability to solve social and professional problems using the mainprovisions of the humanities (philosophy);
- skills in analyzing, setting tasks and choosing the optimal way to solve them, and various forms of text presentation (report, state description, telling, (narration);

- compare, summarize, generalize (definition, explanation); justify, prove, refute (argumentation, reasoning);
- Skills of presenting an independent point of view, analysis and logical thinking, public speech, conducting discussions and round tables;
- skills of analysis and logical thinking.

#### B. 1. 5 "Manas Studies"

Labor intensity/complexity 2 credits

**Lecture 16 hours** 

**Practical classes 14 hours** 

Self-study 30 hours

# Type of control credit test

**Purposes:** creating accurate and correct views about the subject "Manas studies", and its essence, the basics of the worldview and traditional medicine of the Kyrgyz people, reflected in the epic. **Tasks:** 

- defining the place and role of the national epic "Manas" in world culture;
- revealing the essence of the spiritual culture of the Kyrgyz people based on the epic "Manas", religions, folk traditions and games, features of Kyrgyz ethics;
- determining the place and role of traditional Kyrgyz medicine based on the epic "Manas";
- study of the historical periodization of Kyrgyz folk medicine based on the epic"Manas";
- introduction to the psychotherapeutic effects of content in the "power of the word"used in folk medicine;
- introduction with representatives of traditional medicine and the range of their functional responsibilities;
- study of empirical and rational methods of treatment by ancient Kyrgyz people based on the epic "Manas";
- study of medicines of animal and mineral origin based on the epic "Manas".

Content of the discipline: Study of the Epic "Manas" in the pre-Soviet, Soviet and modern period. Genre features of oral folk art of Kyrgyz people. Traditional medicine based on the epic "Manas". Historical periodization of Kyrgyz folk medicine. Representatives of traditional medicine and the scope of their functional responsibilities for the epic "Manas". Rational and empirical aspects of treatment of Kyrgyz people according to the epic "Manas". Mystical and religious aspects of traditional medicine Kyrgyz people on the epic "Manas". Kyrgyz beliefs about the magical causes of diseases. Ritual actions related to the treatment of various diseases in the epic "Manas". Empirical methods of treatment based on the epic "Manas". Medicines of animal and mineral origin. Folk surgery, climate therapy. Herbal medicine, organotherapy. Psychotherapy or the power of the word in folk medicine. Sacred symbolism of diseases, animistic and fetishistic aspects of traditional medicine. Kyrgyz worldview and its characteristic features. Pre-Islamic Beliefs and Islam based on the Epic "Manas". Folk customs and traditions, folk games and entertainment of the Kyrgyz people based on the epic "Manas".

# As a result of mastering the discipline "Manas studies" a student should know:

- becoming of "Manas studies" as a science; methodology of studying "Manas studies";
- principles of action of traditional medicine of the Kyrgyz people according to the epic "Manas";
- chronology of the development of traditional medicine of the Kyrgyz people based on the epic "Manas";
- methods of psychotherapeutic influences used in traditional medicine; representatives of traditional medicine and the range of their functional responsibilities;

- empirical and rational methods of treatment by ancient Kyrgyz people based on the epic "Manas";
- study of medicines of animal and mineral origin based on the epic "Manas";
- the main historical stages of the origin and development of the epic "Manas";
- main variants of the epic "Manas";
- names of storytellers-Manaschi; the role and place of Manaschi in the spiritual life of the Kyrgyz people; cultural, historical and educational values of the epic "Manas".

#### Be able to:

- describe the historical epoch reflected in the epic "Manas";
- know the names of the main characters of the epic "Manas" and their role in the life and fate of the Kyrgyz people;
- to know the names of the great Manaschi and their role and place in the life of the Kyrgyz people;
- To know the name of epic researchers "Manas"; quote from the poetics of the epic "Manas"; distinguish the plot of the epic trilogy "Manas";
- to distinguish between religious and mystical, empirical and rational methods of treatmentof traditional medicine of the Kyrgyz people according to the epic "Manas".

#### Master:

- ability to solve social and professional problems using the main provisions of the humanities (philosophy);
- skills in analyzing, setting tasks and choosing the optimal way to solve them; various forms of text presentation (report, state description);
- telling, (narration); compare, summarize (definition, explanation); justify, prove, refute (argumentation, reasoning);
- skills of presenting an independent point of view, analysis and logical thinking, public speech, conducting discussions and round tables;
- skills of analysis and logical thinking.

#### VARIABLE PART

V. 1.1 "Geography of Kyrgyzstan"

Labor intensity/complexity 2 credits

**Lecture 20 hours** 

**Practical classes 10 hours** 

Self-study 30 hours

# Type of control credit test

**Purposes:** to create accurate and correct ideas about the subject "Geography of Kyrgyz Republic", and its essence, the formation of the foundations of the geographical worldview of students.

#### Tasks:

- Review of literature on the geography of the Kyrgyz Republic.
- Geographical location and borders of the Kyrgyz Republic.
- The relationship of natural features with the mountainous terrain and the intra-continental location of the region.
- History of geographical research.
- Complex physical and geographical studies and their national economic significance.

Content of the discipline. Climatic conditions. Main types of Kyrgyzstan landscapes. Water resources, soil, and vegetation cover. Non-ferrous metallurgy, mechanical engineering and metalworking, industrial construction of Kyrgyzstan. The main branches of agriculture and their location. Animal husbandry. Agriculture. Transport complex and tourism development Kyrgyz

# Republic.

# As a result of mastering the discipline "Geography of Kyrgyzstan" a student should know:

- regularities of natural formation conditions of the republic;
- history formation of the territory, the structure of the relief, on the climate patterns formation features of rivers, lakes, underground waters, glaciers; water reserves formation and distribution, the structure of their modern use; features of the formation of soil and vegetation cover;
- distribution of land resources, their current use and ecological state;
- animal world, its current ecological state, protection; patterns of landscape distribution;
- protected areas of Kyrgyzstan;
- natural and social-economic prerequisites for social-economic development of Kyrgyz Republic Republics;
- population and labor resources, social policy aimed at improving the standard of living of the population, migration processes;
- the history of the establishment of Kyrgyz Republic economics;
- the main changes in the location of industry in the regions, the geography of the fuel and energy industry, non-ferrous metallurgy, mechanical engineering, food, light industry, production of building materials;
- economic and geographical problems of the republic's agricultural development;
- main branches of agriculture, features of their location, problems and prospects for the development of agricultural sectors in the republic;
- the importance of transport in the national economy, changes in geography, state and prospects of their development;
- recreational resources, location of tourism industries, problems of resort and tourism development of Kyrgyzstan;
- main foreign economic relations, prospects for the development of foreign economic relations;
- economic and geographical areas of KR, internal differences, specialization of districts.

# Be able to:

- work with the map and analyze it;
- analyze and evaluate the social- economic consequences of new phenomena in science, technology, and the professional sphere;
- analyze particular and general problems of rational use of natural conditions and resources;
- manage environmental management under the guidance of specialists and qualified researchers ;
- collect and analyze information from various sources to solve professional and social problems;
- analyze patterns of formation of natural resources, economy and population of the Kyrgyz Republic;
- analyze and forecast the development of territorial social-economic systems of different levels, territorial organization of society, distribution of productive forces under the guidance of specialists and qualified researchers.

# Master:

- methods of working with geographical maps;
- a holistic system of scientific knowledge about the world around us, be able to orient the values of life:
- skills and techniques, necessary tools for complex geographical analysis; modern research methods for collecting and primary processing of the material;
- integrated system of scientific knowledge about nature, natural conditions, population and economy of the Kyrgyz Republic;
- information about the current geoecological state of nature and natural components of the republic's territory;

- information on the current state of development and location of industries, agriculture, transport and tourism;
- information on the republic's foreign economic relations and its priority areas;
- information about natural conditions, resources, population, and the economic state of the republic's regions.

# C.2 MATHEMATICAL AND NATURAL SCIENCE CYCLE BASIC PART

B. 2.1 "Mathematics"

Labor intensity/complexity 1 credit

Lecture 6 hours

Practical classes 10 hours

Self-study 14 hours

Type of control credit test

**Purposes:** training of a highly professional specialist who has mathematical knowledge, skills and abilities to apply mathematics as a tool of logical analysis, numerical calculations and estimates, construction of mathematical models of physical-chemical, biological and medical content.

# Tasks:

- teach students to perform differential and integral calculus of functions describing biological objects and solve differential equations describing biomedical processes.

**Content of the discipline:** Derivative and differential of a function. Theory of integrals. Theory of differential equations. Composing and solving differential equations using examples of biomedical and biophysical problems.

# As a result of mastering the discipline "Mathematics", the student should know:

- mathematical methods for solving intellectual problems and their application in medicine; basic mathematical structures,
- probability and statistics,
- mathematical models, algorithms, and programming languages,
- standard software of professional activity, basic concepts and methods of information protection;

# be able to:

- perform calculations based on the results of the experiment,
- carry out elementary statistical processing of experimental data; use information computer systems in medicine and health care;

# Master:

- methods of determining various physical characteristics of biological objects;
- practical skills in using individual samples of medical and diagnostic equipment.

# B. 2.1 "Computer science"

Labor intensity/complexity 4 credits

**Lecture 14 hours** 

Practical classes 46 hours

Self-study 60 hours

Type of control credit test

**Purposes:** to form students' general ideas about the possibilities of using information and communication technologies that provide broad opportunities for processing medical information,

to master the techniques of working with modern standard application software packages.

### Tasks:

- teaching students the basics of working with a computer, modern software tools for system and application purposes, with Microsoft Office tools for processing various types of information on a computer,
- mastering methods of statistical processing of medical and biological information.

Content: Basic concepts of computer science. Software and hardware of a personal computer (PC). Working with MS WINDOWS operating system and its applications. MS WORD text editor. Power Point presentation creation program. MS EXCEL spreadsheets. Calculation of biomedical models in MS Excel. Statistical processing of biomedical information in MS Excel. Descriptive statistics. MS ACCESS database and DBMS MS. Working with tables and forms. Entering data. Working in the Internet. Medical resources and search engines.

# As a result of mastering the discipline "Mathematics and Computer Science", the student should know:

- theoretical foundations of computer science,
- content of basic concepts and terms; procedure for collecting, grouping, and processing data in computer programs;
- techniques for storing, searching, processing, converting, and distributing information in healthcare;
- principles of using information computer systems in clinical and medical-preventive activities;
- basic approaches to formalization and structuring of various types of medical data used to form decisions during the treatment and diagnostic process;
- types, structure, and characteristics of medical information systems;
- principles of automating the management of health care institutions using modern computer technologies.

#### be able to:

- perform text and graphic processing of documents using standard software tools;
- perform statistical processing of experimental data;
- use modern network tools Internet for searching professional information for independent training and advanced training in certain sections of medical knowledge;
- use computer medical and technological systems in the course of professional activity.

#### master:

- terminology related to modern computer technologies applied to solving problems in medicine and health care;
- basic technologies of information transformation: text, tabular, graphic editors; search for information on the Internet;
- basic principles of statistical data processing; general methods of creating and working with databases;
- the main methods of working in medical information systems used in the medical and diagnostic process;
- primary skills of using medical information systems for the implementation of the main functions of a medical doctor.

# B. 2.2 "Physics"

# Labor intensity/complexity 4 credits

# **Lecture 14 hours**

#### Practical classes 46 hours

# Self-study 60 hours

# Type of control credit test

**Purposes:** To develop students' knowledge, skills and abilities necessary for successful mastering of general cultural and professional competencies in the field of physics and mathematics. To form a systematic knowledge of the physical properties and physical processes of medical students. Biological objects, in fact the numbers in the human body, necessary for the development of other academic disciplines and the formation of professional medical qualities. Opening its integrative links with other disciplines, provide the complex training of the specialist of this profile with the formation of a dialectical worldview of students on the basis of physical laws. To teach them to recognize the physiological status of the human body through physical phenomena; providing indepth knowledge of the peculiarities of the manifestation of the physical laws in the bio system; understanding the device and operation of medical equipment.

#### Tasks:

- study of the biophysical and physical-chemical bases of the human body vital activity processes;
- study of biophysical bases of damaging and therapeutic effects; physical and chemical environmental factors on the body;
- application of physical laws to explain the processes occurring in the human body;
- getting ideas about modern physical methods of prevention, diagnosis and treatment of diseases.

Content: The importance of physics for medicine. Medical biophysics. Classification of medical equipment. Methods of introscopy. Biophysical bases of clinical laboratory diagnostics. Molecular biophysics. Dynamic mobility of macromolecules during functioning. Intramolecular changes. Methods of investigation of biological membranes. Permeability and transport of substances in biological membranes. Electrical membrane potentials. Electrical characteristics of ion channels of an excitable cell. Electrochemical gradients. Biophysical foundations of methods used in the diagnosis and treatment of diseases of the nervous system. Biophysical foundations of sensory systems. Stages of registration of medical and biological information. Application of biophysical methods in the diagnosis and treatment of diseases of the nervous system. Biophysics of tissues and organs. Biomechanics. Rheological properties of blood. Physical bases of hemodynamics. Bioacoustics. Physical basis of the impact of sound, infrasound and ultrasonic waves on the human body. Electrical properties of tissues and organs. The impact of electromagnetic fields on the human body. Electrocardiography. Endoscope, its design and purpose. Study of the effect of UHF fields on tissues and organs. Bio optics. Biophysics of reception. Human exposure to radiation. Radiation biophysics.

# As a result of mastering the discipline "Physics", the student should know:

- basic laws of physics, physical phenomena and patterns underlying the processes occurring in the human body;
- characteristics and biophysical mechanisms of influence of physical factors on the body;
- physical basis of functioning of medical equipment, device and purpose

# be able to:

- use basic measuring instruments;
- study the physical properties of substances;
- work on physical medical equipment;
- perform the simplest statistical processing of measurement results;

#### master:

- methods of determining various physical characteristics of biological objects;

- practical skills in using individual samples of medical and diagnostic equipment.

# B. 2.3 "Chemistry"

Labor intensity/complexity 4 credits

Lecture 28 hours

**Practical classes 32 hours** 

Self-study 60 hours

Type of control credit test

**Purposes:** to develop an understanding of the role of bioorganic chemistry as the foundation of modern biology, the theoretical basis for explaining the biological effects of bioorganic compounds, the mechanisms of drug action, and the creation of new drugs. To lay down the knowledge of the relationship between the structure, chemical properties and biological activity of the most important classes of bioorganic compounds, to teach how to apply this knowledge in the study of subsequent disciplines and in professional activities.

#### Tasks:

- Formation of knowledge of the structure, properties, and reaction mechanisms of the most important classes of bioorganic compounds that determine their medical and biological significance.
- Formation of ideas about the electronic and spatial structure of organic compounds as a basis for explaining their chemical properties and biological activity.

Content: Introduction to bioorganic chemistry. Classification and nomenclature of organic compounds. General characteristics of reactions of organiccompounds. Biologically important reactions of hydrocarbons. Biologically important reactions of alcohols, phenols, thiols and amines. Biologically important reactions of aldehydes, ketones, and carboxylic acids. Stereo chemical bases of the structure of organic compound molecules. Biologically important polyfunctional and heterofunctional organic compounds. Heterocyclic organic compounds involved in the processes of vital activity of the body

# As a result of mastering the discipline "Chemistry", the student should know:

- principles of classification, nomenclature and isomerism of organic compounds;
- fundamental principles of theoretical organic chemistry, which are the basis for studying the structure and reactivity of organic compounds;
- spatial and electronic structure of organic molecules and chemical transformations of substances that are participants of vital processes, indirect connection with their biological function;
- structure and chemical properties of the main classes of biologically important organic compounds.

#### be able to:

- classify organic compounds according to the structure of the carbon skeleton and thenature of functional groups;
- make formulas by name and name by structural formula typical representatives of biologically important substances and medicines;
- identify functional groups, acid and base centers, conjugate and aromatic fragments in molecules to determine the chemical behavior of organic compounds;
- predict the direction and result of chemical transformations of organic compounds;
- work independently with educational, scientific and reference literature;
- search and make generalizing conclusions;
- have skills in handling c chemicalutensils;

 have the skills of safe work in a chemical laboratory and the ability to handle c caustic, toxic, highly volatile organic compounds, work with burners, alcohol lamps and electric heating devices.

#### master:

- the method of a given composition solution preparation;
- the method of titrimetric analysis;
- the method for measuring the pH of biological fluids under study;
- the method for determining the buffer capacity of biological fluids.

# B. 2.4 Biology with elements of ecology

Labor intensity/complexity 2 credits

**Lecture 14 hours** 

**Practical classes 16 hours** 

Self-study 30 hours

Type of control credit test

**Purposes:** Formation of students' biological thinking, holistic natural science worldview, understanding of the essence of life, individual development, the relationship between organisms and the environment, the relationship between health and the environment.

# Tasks:

- Study the flow of information, substances and energy in the cell;
- Study the forms of reproduction and individual development of organisms;
- Basic laws of heredity and variability;
- Study questions of human evolution and origin;
- Study the effect of environmental factors and their impact on human health;
- Study the problems of pollution and environmental protection;
- Learn the basics of medical parasitology;
- Develop basic knowledge and general concepts in modern biology;
- Teach competent perception of practical problems of biology and education of ecological culture.

**Content.** The emergence of life on Earth. The flow of information, energy and substances in the cell. Reproduction forms and their cytological bases. Ontogenesis. Evolution of the organic world. Anthropogenesis. Environmental factors and their impact on human health. Ecological systems. Features of human ecology.

# As a result of mastering the discipline "Biology with the basics of ecology", the student should know:

- Subject, tasks, and methods of studying biology.
- Theories about the origin of life on Earth.
- Evolutionary factors. Evolution of the eukaryotic cell.
- Reproduction and its forms.
- Types, forms, and periods of ontogenesis.
- The proembryonic period. Hametes and egg types. Fragmentation and its types.
- Gastrulation and its forms. Teratogenic factors. Factors of growth and development.
- Subject and tasks of ecology science. Ecological types of people.
- Physical factors of environmental pollution. Chemical factors of environmental pollution.

- Biological factors of environmental pollution.
- Anthropogenesis and its stages. Driving forces of anthropogenesis.

#### Be able to:

- Determine the components of cells and tissues. Identify egg types.
- Distinguish the stages of hametogenesis. Distinguish types and forms of ontogenesis.
- Determine the dominant factor among a set of factors.
- Recognize environmental types of people.

# Master:

- Microscopy techniques;
- The method of manufacturing temporary micro-preparations.
- Ability and willingness to identify the natural science nature of problems.

# VARIABLE PART

# V. 2.1 Medical Biology

Labor intensity/complexity 2 credits

**Lecture 12 hours** 

Practical classes 30 hours

Self-study 18 hours

# Type of control credit test

**Purposes:** Formation of students' biological thinking, holistic natural science worldview, understanding of the essence of life, individual development, the relationship between organisms and the environment, the relationship between health and the environment.

#### Tasks:

- Study the flow of information, substances and energy in the cell;
- Study the forms of reproduction and individual development of organisms;
- Basic laws of heredity and variability;
- Study questions of human evolution and origin;
- Study the effect of environmental factors and their impact on human health;
- Study the problems of pollution and environmental protection;
- Learn the basics of medical parasitology;
- Develop basic knowledge and general concepts in modern biology;
- Teach competent perception of practical problems of biology and education of ecological culture.

Content of the discipline: Biology program provides a scientific basis for understanding the biosocial nature of man, his place and significance in the nature of the planet. The study of living organisms involves the study of cell biology, cell metabolism, the structure of the genetic apparatus, and the patterns of cell existence over time.

An important property of living organisms is reproduction, which determines the preservation of hereditary traits and the continuity of generations. This is observed in the process of individual development.

Evolution as an irreversible, gradual, natural process of historical development is studied in order to understand the essence of transformations, changes, the emergence and disappearance of biological species, transformations of biogeocenoses and the biosphere as a whole. Due to its animal origin, the human body is based on biological mechanisms that make up the biological heritage of humans

# As a result of mastering the discipline, the student shouldknow:

- Subject, tasks and methods of studying biology;
- Reproduction and its forms.
- Types, forms, and periods of ontogenesis.
- Structure, and functions of dispensary bodies. Factors of growth and development.
- Fundamental properties of living things;
- Levels of organization of life;
- Subject and tasks of ecology science. Ecological types of people.
- Subject and tasks of genetics. Laws of heredity
- Forms of interaction between allelic and non-allelic genes. Inheritance of human blood types
- Features of the human karyotype. The gene and its properties.
- Mutations and their role.
- Subject and tasks of medical parasitology. Parasitism as a biological phenomenon.
- Influence of the parasite on the host. Influence of the host on the parasite.
- Morphological adaptation of parasites. Parasite life cycles.
- Parasite control measures.
- Subject, tasks and methods of studying the science of ecology;
- Environmental factors;
- Environmental factors affecting human health;

#### Be able to:

- Identify egg types. Distinguish the stages of hametogenesis.
- Determine the dominant environmental factor among environmental factors. Recognize environmental types of people.
- Determine the main processes occurring in a living organism;
- Recognize a person's biological heritage.
- Determine the inheritance of blood groups. Exclude paternity based on schemes.
- Determine human sexual chromatin.
- Solve problems related to attribute inheritance.
- Analyze the karyotype. Create an idiogram. Classify mutations.
- Identify antimutation mechanisms. Identify parasitic protozoa.
- Determine the stages of fluke development.
- Identify the characteristics of tapeworms;
- Distinguish tick stages;
- Fight vectors of infections and infestations;
- Conduct explanatory work;
- Classify environmental factors.
- Determine the stages of geohelminths.

# Master:

- Microscopy techniques;
- The method of manufacturing temporary micro-preparations.
- The method of manufacturing macro-preparations (wet).
- Ability and willingness to identify the natural science nature of problems;
- Medical and biological concepts;
- Human chromosome analysis skills;
- Basic and additional methods of studying human heredity;
- Karyotype analysis method;
- The method of creating an idiogram of a person;
- Methods of drawing up and analyzing the inheritance of blood groups;
- The method of manufacturing temporary micro-preparations.

- Skills in controlling parasites and preventing infection.
- Ability and willingness to carry out sanitary and educational work among the population
- Medical-biological and ecological concepts;
- Ability to conduct explanatory work among the population.
- Methodology for drawing up conclusions, reports, essays, and abstracts.

#### V. 2.2 Bioethics

Labor intensity/complexity 2 credits

**Lecture 14 hours** 

**Practical classes 16 hours** 

Self-study 30 hours

Type of control credit test

**Purposes:** Training of graduates who are competent in applying the principles of ethical thinking and professional responsibility of nurses with higher education.

#### Tasks:

- Introduction students with the theoretical background and grounds for the emergence and development of bioethics;
- Formation of students' understanding of professionalism, ethical values, ethical and legal norms of the nursing profession with higher education.
- Formation of students' methodology of argumentation and solving ethical problems in the field of application of biomedical technologies.
- Formation of skills of ethical analysis of research activities of nurses with higher education.

**Content:** The concept of the program is to cover the unique ethical aspects of the nursing profession with higher education, which is based on bioethics, which is an integral component of nursing practice.

Graduate nurses, like other healthcare professionals, should clearly understand bioethics and its components in interdisciplinary discussions about right and good. Modern bioethics and biomedical ethics provide approaches to these issues. The program includes nursing ethics , a branch of bioethics that deals with moral issues in nursing practice.

The concept of the program includes unique aspects of nursing practice from the perspective of various areas of bioethics, including theoretical bioethics, biomedical ethics, research ethics and nursing ethics to meet the need for students to prepare them for the worthy fulfillment of the mission of providing quality nursing care to the population.

The program is based on the following materials: UNESCO's Core Curriculum, which aims to introduce students to the principles of bioethics set out in the UNESCO World Health Organization. General information Declarations for Bioethics and it covers general issues of bioethics and biomedical ethics, research ethics, and particular issues of nursing ethics.

# As a result of mastering the discipline, the student should know:

- forms of social regulation.
- Morality and law as regulators of public relations.
- Ethics as a moral science. Basic ethical terms and concepts, basic ethical theories; levels of moral argumentation.
- Main provisions, articles and principles "Code of Ethics for Nurses", rights, duties and responsibilities of the patient and nurse;
- Concepts of "culture" and the importance of respect for cultural diversity, concepts of "pluralism" and its importance in bioethics.
  - UNESCO Universal Declaration on Bioethics and Human Rights and national legislation on respect for human autonomy, human dignity and human rights.
- basic ethical and deontological principles and rules of medical ethics and deontology,

biomedical ethics; ethics of nursing. Ethical and legal aspects of iatrogeny. Medical error - moral and legal liability, Code of Professional Ethics for Medical Professionals Kyrgyz Republic;

 Code of Professional Ethics for Nurses Ethical Rules and Principles biomedical ethics, nursing ethics, cultural values of the people. Legislative and legal acts of the Kyrgyz Republic in the field of the rights of the patient, medical worker and nurse. Main provisions, articles and principles "Code of a medical nurse Ethics"

#### be able to:

- Distinguish between the rights and obligations of the patient,
- build relationships with the patient in accordance with the modern model of informed consent.
- conduct discussions in the context of pluralism of opinions, using various ethical methods of conflict resolution;
- be able to address issues of cultural diversity and take into account cultural specifics in matters related to bioethics and human rights conduct an analysis of problems in the relationship of nurses using ethical anddeontological principles;
- Conduct self -analysis of the results of their own practical activities to prevent professional mistakes.
- conduct an analysis of problems in the relationship of a nurse using ethical and deontological principles;
- Conduct self -analysis of the results of their own practical activities to prevent professional mistakes.
- apply the basic requirements of fair practice of scientific research in scientific activities, ethical principles of research ethics, requirements of regulatory legal acts and basic ethical documents and guidelines

# Master:

- Skills in applying the principles of moral autonomy, informed consent, and fairness in working with patients;
- respect for cultural diversity and pluralism, argumentation and solution of problematic ethical and legal issues of protecting the patient's interests in the practice of a doctor and nurse
- principles and rules of medical ethics and deontology, biomedical ethics, and nurse ethics in the practice of a doctor and nurse;
- recognition of ethical problems and professional errors, their diagnosis and prevention
  in the practice of a doctor and a pharmaceutical worker; principles and rules of medical
  ethics and deontology, biomedical ethics, and nurse ethics in the practice of a doctor and
  nurse; recognition of ethical problems and professional errors, their diagnosis and prevention
  in the practice of a doctor and nurse;
- principles and rules of medical ethics and deontology, biomedical ethics, and nursing ethics in the practice of a doctor and nurse.

# V. 2.3 Nursing in psychiatry

Labor intensity/complexity 2 credits

**Lecture 10 hours** 

**Practical classes 20 hours** 

Self-study 30 hours

Type of control credit test

**Purposes:** formation of competencies for identifying patients with mental and behavioral disorders and providing them with pre-medical care at the primary level of healthcare.

#### Tasks:

- formation of students' communication skills with patients, taking into account ethics and deontology;
- formation of a respectful attitude towards a patient suffering from a mental disorder, as a person, as an ordinary patient in need of medicalcare;
- training students to identify the leading symptoms and syndromes of mental disorders;
- training in knowledge of etiopathogenesis, diagnostic signs of major mental disorders;
- training students in providing pre -medical care to patients with psychiatric emergencies.

Content: mental disorders should not be considered exclusively as the prerogative of psychiatrists. Due to the stigmatization of psychiatry, patients suffering from mental disorders are afraid to seek help from psychiatric services. One of the most important destigmatization measures currently being carried out in the KR, it is the integration of psychiatry into general health care with the transfer of some of the functions of a psychiatrist to general practitioners. Due to the primary care doctors, a large burden will fall on family nurses. In the light of the ongoing reforms, they will need to be able to provide pre-medical care to patients with mental disorders. In this regard, the introduction of the course "Nursing in psychiatry" for students of the faculty "Higher nursing education" is conditioned by the need to provide them with theoretical and practical knowledge in the field of psychiatry.

# As a result of mastering the discipline "Clinical Psychology, the student should know:

- characteristics of psychology as a science;
- know the main categories and concepts of scientific psychology;
- know the main directions, approaches, theories in psychology and current trends in the development of psychological concepts;
- have an understanding of individual characteristics of a person, emotional and volitional regulation of his behavior, motivational sphere, self-awareness, cognitive processes and personal growth in general;
- the peculiarities of consciousness as the highest form of mental life; on the basic laws of the functioning of the psyche; goals, functions, types and levels of communication;
- mechanisms of mutual understanding in communication;
- communication techniques, rules of listening, conversation, and persuasion;
- ethical principles of communication; sources, causes, types, and methods of conflict resolution.

# be able to:

- master the system of theoretical knowledge in the main sections of psychology;
- analyze different approaches to the categories of psychology and formulate own definitions;
- scientifically substantiate one's own position in the analysis of psychological facts; give a reflexive assessment of one's own behavior;
- scientifically substantiate one's own position in the analysis of psychological facts; use the conceptual apparatus of psychology;
- use the scientific language of various psychological schools;
- apply techniques and techniques of effective communication in professional activities; use techniques of self-regulation of behavior in the process of interpersonal communication.

#### Master:

- methods of self-regulation of behavior in the process of interpersonal communication;
- techniques of effective communication in professional activities.

#### **BASIC PART**

# B. 3. 1 Anatomy with the basics of histology

Labor intensity/complexity 12 credits

Lecture 72 hours

Practical classes 162 hours

Self-study 126 hours

# Type of control exam (II semester)

**Purposes:** to study the structure of the human body, its constituent systems and organs in accordance with the tasks of continuous training of students in theoretical and clinical departments.

# Tasks:

In the process of teaching human anatomy, consider individual, gender and age characteristics of the body, variants of organ variability.

Study of the structure of organs in general, focus on the relationship of body systems.

To emphasize the merits of morphological scientists in the study of applied aspects of the theoretical discipline in terms of continuity of clinical subjects.

In the process of teaching human anatomy, students are taught ethical standards of behavior in the anatomical theater, respect and careful attitude to the organs of the human body and the corpse, which students study in the name of a living person.

**Content of the discipline:** This program is written for students of the faculty "Nursing" taking into account the new requirements imposed by the higher school. Studying the anatomy of individual organs, organ systems, pay attention to understanding the structure of the body as a whole. Develop students 'general understanding of the structure of human organs.

# As a result of mastering the discipline, the student should know:

- The role and significance of anatomical discipline in the system of higher medical education.
- Methods of anatomical research.
- Anatomical terms (Russian, Latin and Greek).
- Anatomy of organs, systems and apparatuses of organs, structure and basic functions (normal and systematic anatomy).
- The relationship of organs to each c other; the projection of organs on the surface of the body at the organizational level.
- Main stages of organ development.
- Regularities of the structure of the human body as a whole, anatomical and functional relationships of individual parts of the body with each c other;
- The importance of fundamental research in anatomical science for practical and theoretical medicine.

#### be able to:

- Find and show organs, their parts, and structural details on anatomical preparations, and correctly name them in Russian, Greek, and Latin.
- Find and highlight muscles and fascia, large vessels, nerves, glandular ducts, and individual organs on training preporates.
- Find and show the main bone landmarks, body parts and areas on the human body.
- Find and display organs and basic details of their structure on X-rays. Be able to correctly identify anatomical formations on the model πo in the section of projection anatomy.

#### Master:

- Knowledge of basic anatomical terms, medical and anatomical concepts

- Clearly orient the complex structure of the human body, accurately find and determine the locations and projections of organs and their parts on the surface of the body, i.e. own "anatomical material".
- Find points for detecting pulsation and possible arterial compression: superficial temporal, facial, common carotid, brachial, radial, femoral, posterior tibial, and dorsal arteries of the foot.
- Correctly project and, if they are detected, demonstrate the main superficial veins of the upper and lower extremities.
- Determination (measurement skills) human anthropometric parameters.
- Sskills of sketching schematic images of generally accepted anatomical concepts in the course of normal anatomy.

# B. 3. 2 Physiology

Labor intensity/complexity 8 credits Lecture 64 hours Practical classes 96 hours Self-study 80 hours Type of control exam (II semester)

**Purposes:** to form students' knowledge about the vital activity of the whole organism, its organs and systems, about the main mechanisms of body physiological functions regulation when interacting with the external environment.

#### Tasks:

- Formation of ideas about the morpho-functional unity of the human body and mechanisms of regulation of its systems.
- Study of the functions of cells, organs and systems of the body, regulation of homeostasis in changing environmental conditions.
- Students' development of methods of studying various body systems in various types of activities.
- Application of the acquired knowledge and skills in the study of general professional disciplines.

**Content:** physiology is the science of vital activity of an organism, its individual organs and systems. It studies the physiological patterns of a healthy lifestyle and changes in the functional activity of the human body in various environmental conditions. Studying the body of healthy people will allow future specialists to quickly master the methods of functional diagnostics, assess the state of health and adaptation of the body, and the level of normal functioning of physiological functions. Disclosure of the regularities of the functioning of organs and systems of the body is a necessary condition for further increasing life expectancy, rational organization of health improvement and facilitation of working conditions, and the discovery of new methods of preventing and treating diseases. The discipline of physiology is the methodological foundation of clinical disciplines. Thus, both preventive and clinical medicine is based on knowledge of the normal functions of the human body.

# As a result of mastering the discipline, the student must

# know:

- basic anatomical and physiological concepts and terms used in medicine, functions of cells, organs and systems, mechanisms of homeostasis regulation,
- adaptive reactions of the body interacting with environment.

#### be able to:

- evaluate the activity parameters of the body's organs and systems;

- differentiate the functions of blood cells, skeletal, smooth and cardiac muscles, functions of various blood vessels, respiratory system, digestive processes in the gastrointestinal tract, urinary processes in the kidneys;
- analyze the results of modern methods of laboratory diagnostics for assessing the functions of human organs and systems;
- work with a microscope, blood pressure measuring device, phonendoscope;
- formulate independently conclusions based on the set research goal, the results obtained.

# Master:

- using medical terminology;
- medical and biological conceptual apparatus;
- fundamentals of laboratory methods of blood testing; determination of blood group;
- the principle of counting the number of red blood cells and white blood cells, working with a microscope;
- elementary electrocardiogram analysis,
- use of medical instruments phonendoscope, tonometer, neurologicalhammer.

# B. 3. 3 Microbiology, virology and immunology

Labor intensity/complexity 8 credits

Lecture 64 hours

Practical classes 64 hours

**Self-study 112 hours** 

Type of control exam (III semester)

**Purposes:** students should know the general laws of the structure, vital activity and distribution of microorganisms of various classes in the Earth's biosphere. Students should have clear ideas about the pathogenicity of microorganisms and its implementation in specific conditions of infectious diseases, about immunity as a state of a macro, -organism in which the infectious process and immunopathological conditions develop, about drugs that provide specific treatment and prevention of infectious diseases.

# Tasks:

To establish the etiological role of microorganisms in normal and pathological conditions.

- Development of diagnostic methods, specific prevention and treatment of infectious diseases, indication and identification of pathogens.
- Bacteriological control the environment, food, compliance with the sterilization regime and supervision of sources of infection in medical and otherinstitutions.
- Control over the sensitivity of microorganisms to antibiotics and other drugs, the state of microbiocenoses of surfaces and cavities of the human body.

**Content:** microbiology occupies a special position in the general system of nurse training. This is a science that provides fundamental general biological knowledge and forms logical thinking, on the other hand, it is the basis for studying other disciplines, primarily infectious diseases.

Teaching includes three independent sciences: microbiology, virology and immunology, the amount of information πo that is progressively increasing.

# As a result of mastering the discipline, the student should know:

- The main stages of development of microbiology, the relationship of science with other disciplines, the tasksand methods of research, the principle of systematics of microorganisms.

- Structure and shape of a bacterial cell with the function of various formations, their chemical composition, physiology, biochemistry of bacteria, features of nutrition, respiration, growth, reproduction.
- Morphology and physiology of actinomycetes, spirochaetes, rickettsias, chlamydia, mycoplasmas, fungi, and protozoa.
- Distribution and role of microbes in the environment. Influence of environmental factors on microorganisms.
- Morphology, ultrastructure, classification, and nature of viruses. Features of replication of DNA and RNA genomic viruses, their cultivation: antigens, production and use of phages.
- Features of the genetics of bacteria and viruses, the role of plasmid mutations, and recombinations in the evolution of bacteria. Have an understanding of genetic engineering, practical application.
- Sources and methods of obtaining antibiotics, their classification by structure, spectrum, and mechanism of action. On the causes of drug resistance formation. Complications of antibiotic therapy, methods for determining the sensitivity of microbesto antibiotics.
- The concept of the infectious process, its classification. Pathogenicity, virulence, and toxicity of microbes. The role of opportunistic microflora in human pathology and nosocomial infections.
- Immunity, its types, mechanisms and factors; immunocoepetent cells. Their interaction in cellular and humoral immunity. Antigens, their properties, types. Antibodies, characteristics of various classes of immunoglobulins, mechanisms of interaction of antigens and antibodies.
- Allergies of immediate and delayed types. Forms of manifestation, mechanisms of occurrence and preventive measures.
- Vaccines and their types; diagnostic and therapeutic drugs. Principles of obtaining and applying them.
- Microflora of medicinal raw materials. Bacteriological research of raw materials and finished dosage forms.
- Morphology, basic physiological properties of pathogens of coccoid, bacterial, drip, intestinal, zoonotic, rickettsial, viral, fungal infections. Have an understanding of the pathogenesis, main clinical manifestations, methods of laboratory diagnostics, preventive measures and treatment principles.

#### be able to:

- Comply with the rules of sanitary-hygienic and anti-epidemic regime and safety in bacteriological laboratories.
- Take material for bacteriological and virological studies (sputum, pus, nasal and pharyngeal contents, bowel movements, urine, blood).
- Take samples from various environmental objects (open and underground water supply sources and water distribution network, soil, indoor and atmospheric air, food products) for sanitary and microbiological research.
- Conduct sanitary and bacteriological research of medicinal raw materials and finished medicines.
- Carry out sanitary and bacteriological control in the work of pharmacies.
- Take hand washes, surfaces, dishes and conducting sanitaryand bacteriological studies.
- Fill out referral forms for bacteriological research. Have skills in reading the results of microbiological, virological, and serological laboratory tests.
- Decontaminate of infected material, antiseptic treatment of hands of laboratory workers in contact with the test material, cultures of pathogenic microorganisms.
- Prepare microscopic preparations from pure cultures of microbes, from pathological material

- (pus, sputum, blood).
- Color preparations with simple and complex methods (by Gram, Zil-Nielsen, Ginsu, Neiser, Romanovsky-Giemse).
- Differentiate microorganisms by morphological characteristics with microscopy.
- Use microscopy skills with an immersion light microscope system and be able to set up a dark field of view (for observing microorganisms in a living state), be able to work with a phase contrast unit and a luminescent microscope.
- Sterilize nutrient media, dishes, and contaminated material.
- Isolate pure aerobic and anaerobic cultures, be able to identify isolated cultures by morphological, tinctorial, cultural, biochemical, and antigenic properties; be able to determine phagesensitivity, phagotyping, and determine the sensitivity of bacterial cultures to antibiotics.
- Set, account for, and evaluate the results of serological reactions: agglutination, precipitation, complement binding, hemagglutination.

# Master:

- Work with magnifying equipment (microscopes, optical and simple magnifiers)
- Skills of preparation of microscopic preparations from pure cultures of microbes, from pathological material (pus, sputum, blood).
- Stain preparations with simple and complex methods (according to Gram, Zil-Nielsen, Ginsu, Neiser, Romanovsky-Giemse).
- Skills of differentiation of microorganisms by morphological features with microscopy.
- Skills in microscopy with an immersion light microscope system and be able to set up a dark field of view (for observing microorganisms in a living state), be able to work with a phase contrast unit and a luminescent microscope.
- The ability to perform sterilization of nutrient media, dishes, and contaminated material.
- Skills of bacteriological work: isolate pure aerobic and anaerobic cultures, be able to identify isolated cultures by morphological, tinctorial, cultural, biochemical, and antigenic properties;
- Determine phagesensitivity, phagotype and determine the sensitivity of bacterial cultures to antibiotics.
- The ability to set, account for, and evaluate the results of serological reactions: agglutination, precipitation, complement binding, and hemagglutination
- Basic skills of working with materials containing pathogenic and opportunistic microorganisms; diagnostics of opportunistic and infectious diseases.
- Methods for interpreting the results of microbiological and immunological studies, determining the antimicrobial activity of antibiotic drugs, and microbiologically based rules for their use in the treatment of patients.
- A culture of thinking, the ability to critically perceive information, logical analysis and synthesis
- To determine the direction and nature of diagnostic and laboratory research in the following cases:bright specific symptoms of an infectious disease and an epidanamnesis
- Use biological equipment, observe safety procedures, work with magnifying equipment (microscopes, stereo and simple magnifiers), and interpret microscopy data.

# B. 3. 4 General pathology

Labor intensity/complexity 6 credits Lecture 38 hours Practical classes 88 hours Self-study 54 hours

# Type of control exam (II semester)

# **Purposes (pathological physiology):**

The purpose of studying the discipline "Pathology" is to study the structural foundations of the disease, its etiology and pathogenesis in order to use the acquired knowledge further in clinical departments and in the work of a specialist with a higher nursing education.

# Tasks (pathological physiology):

- to train students in clinical thinking, representation of pathological changes at different levels from micro to macroscopic, as well as mastering knowledge about the main symptom, complexes accompanying the development of typical pathological processes and individual nosological units. For this purpose, classes are aimed at developing students' fundamental knowledge and skills by: study of cell pathology and general pathological processes, the totality of whichdetermines the morphological signs of the manifestation of a particular disease;
- study the structural foundations of recovery: complications, outcomes, and long-term consequences of the disease;
- study of the morphology and mechanisms of adaptation and compensation processes of the bodyin response to pathogenic factors and changing environmental conditions;
- study of typical circulatory disorders that occur with hemodynamic disorders in plethora and anemia;
- study of general ideas about tumor growth, the prevalence of this phenomenon innature, and its impact on the body;
- study of general morphological patterns of the infectious process.

# **Content (pathological physiology):**

This program combines morphological and functional criteria and approaches that allow studying disorders of the human body and its individual parts, as well as general patterns of development of cell pathology and its functions, structural and functional patterns of development and course of typical pathological processes and individual diseases.

Taking into account the profile of the specialty, the program allows us to consider training, first of all, from the point of view of teaching about pathology as a link between general medical and clinical disciplines. At the same time, to assess the etiopathogenesis of diseases, it is necessary to understand the essence of the structure and mechanisms of regulation of individual organs and tissues, which indicates the existence of inextricable internal connections of the subject with both anatomy and physiology, as well as microbiology and clinical disciplines, and facilitates their assimilation.

This program allows to get very much closer to the solution of the task facing the nurse, aimed at a competent interpretation of the possibilities of adaptation.

# As a result of mastering the discipline, the student should know:

- basic concepts of general nosology;
- the role and significance of causes, conditions and reactive properties of the body in the occurrence, development and completion (outcome) of diseases;
- causes and mechanisms of typical pathological processes and reactions, their manifestations and significance for the body in the development of various diseases;
- causes, mechanisms and most important manifestations of typical disorders of organs and systems of the body;
- general principles of etiotropic and pathogenetic prevention and therapy;
- significance of the experimental method in the study of pathological processes: itscapabilities, limitations, and prospects.

#### be able to:

- use the knowledge gained in the course of general pathology in the study of other clinical disciplines;
- use the basic concepts of pathology and the most common medical terms working with medical (reference and scientific information) literature, as well as when contacting c medical professionals;
- orient the various forms of pathology and the meaning of basic medical terms;
- analyze issues of general pathology from the perspective of modern science and correctly evaluate theoretical concepts and trends in medicine;
- plan and implement (in compliance with the relevant rules) simple experiments on animals, process and analyze the results obtained.

#### master:

- skills of making a preliminary diagnosis based on the results of laboratory and instrumental examinations for the most socially and hygienically significant pathological processes in организме the human body.

**Purposes (pathological anatomy):** The aim is to study the structural foundations of diseases, their etiology, pathogenesis and morphogenesis in order to use the acquired knowledge in teaching at clinical departments.

# Tasks (pathological anatomy):

- learning: stereotypical 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 individual consequences of diseases;
- morphology and mechanisms of adaptation and compensation processes of the body in response to pathogenic factors and changing environmental conditions;
- changes in diseases that occur both in connection with changing human living conditions and treatment (pathomorphosis) and as a result of therapeutic and diagnostic manipulations (pathology of therapy);
- pathoanatomic service, its tasks in the health care system and organizational and practical forms of solving these problems.

Content (pathological anatomy): pre-graduate training in the specialty "Higher Nursing education" provides professional training for a specialist who has basic theoretical and practical knowledge on the diagnosis of diseases and is ready for subsequent mandatory postgraduate education. The student should be able to compare morphological and clinical manifestations of diseases at all stages of their development, which will help to instill in students the skills of clinical and anatomical analysis, synthetic generalization of diagnostic signs of diseases and their correct interpretation in causal relationships. It should also be oriented in related fields of activity, have the ability to work in modern social-economic conditions.

Study of pathological anatomy includes:

- general pathological anatomy (section of general pathology), which sets out the stereotypical general pathological processes that are characteristic to one degree or another for all diseases;
- private pathological anatomy (section of private pathology), which studies the morphology and pathogenesis of individual diseases (nosological pathological anatomy);

The lecture course outlines the most relevant and complex sections of the program. During practical classes, students independently study macroscopic and histological, histo-chemical preparations, as well as electronograms, describe and sketch them. The teacher provides students with advice and supervises their work. Students take part in the autopsy conducted by the

teacher, get acquainted with the autopsy technique, learn to recognize pathological changes, compare them with the clinical manifestations of the disease.

# As a result of mastering the discipline, the student must: know:

- the content, tasks, objects and methods of research of pathological anatomy, its place in medical science and health care practice.
- Historical development of pathological anatomy. Purpose, tasks, and methods of autopsy.
- Definition, causes, mechanisms, pathogenesis, classification, morphological manifestations of dystrophies.
- Definition, causes, classification, and signs of death, necrosis, and infarction.
- Classification, causes, and morphology of circulatory, lymphatic, and tissue fluid disorders.
- The essence, biological and medical significance of adaptation and compensation.
- Definition, essence, causes, morphology, morphogenesis of regeneration, hypertrophy, hyperplasia, atrophy, metaplasia, tissue rearrangement, organization and wound healing.
- Definition, biological essence, classification, etiology, pathogenesis, morphology of various types of inflammation, tumors.
- Etiology, pathogenesis, morphological characteristics of various diseases, as well as biological and social factors in their development.

# be able to:

- Work with a light biological microscope, read electron images correctly.
- Diagnose signs of biological death, macroscopic and microscopic manifestations of necrosis.
- Macroscopically and histologically diagnose signs of blood and lymph circulation disorders.
- To diagnose macroscopic and histological manifestations of dystrophies, signs of inflammation, compensatory and adaptive processes, and tumors.
- To diagnose morphological changes that occur in prenatal and perinatal pathology.
- To diagnose macroscopic and histological manifestations of atherosclerosis, hypertension and coronary heart disease.
- Diagnose macro-and micro-signs of lung diseases, diseases of the endocrinesystem, gastrointestinal tract, and kidneys.
- Diagnose macro- and micro-manifestations of tuberculosis.
- Diagnose macroscopic and microscopic characteristics of particularly dangerous infections.
- Conduct a differential diagnosis of various general pathological processes and diseases, decipher the mechanism of their development, and evaluate their functional significance.

# master:

- Skills of macroscopic diagnostics of pathological processes.
- Skills in drawing up a written description (protocol) changes in organs during pathological processes and diseases
- Skills of working on a light biological microscope.
- The main methods for determining the criteria for histological diagnosis of pathological processes.
- Basic skills of macroscopic and microscopic diagnostics of various human diseases
- Skills in comparing clinical manifestations and morphological changes in pathological processes and diseases.

# B. 3. 5 Basic pharmacology Labor intensity/complexity 6 credits Lecture 52 hours

#### Practical classes 72 hours

# **Self-study 54 hours**

# Type of control exam (IV semester)

**Purposes:** to develop students' system knowledge, skills and abilities in working with various reference literature on basic pharmacology (medicines); to orient the nomenclature of medicines; to use medicines as prescribed by a doctor; to provide information to the patient about medicines and recommendations for their use.

#### Tasks:

- the formation of fundamental knowledge about the holistic system of theoretical foundations of basic pharmacology, based on the study of: all types of dosage forms, ways of their introduction into the human body, types of their pharmacological action and interaction, metabolism;
- the main pharmacological groups of medicinal products, their pharmacotherapeutic effects, indications and contraindications:
- side effects, types of adverse reactions, complications of drug therapy;
- forms of release of medicines, rationality of their use;
- rules for issuing prescriptions for all types of dosage forms in accordance with the requirements of regulatory documents;
- study of evidence-based medicine and the levels of evidence of scientific publications;
- economicissues that contribute to improving the supply of medicines to medical institutions.

#### **Content:**

In modern conditions to ensure high-quality drug therapy of the population Kyrgyz Republic. All medical assistants should receive appropriate training in the field of rational use of medicines, improve and expand their knowledge in this area throughout their professional activities. Medical assistants should have a sufficiently broad medical outlook and know the basics of pharmacology.

To achieve this goal, the primary task is to modernize educational programs in order to harmonize medical education in Kyrgyzstan and its approximation to international standards.

The State educational standard is based on a competency -based approach (general and professional competencies), within subject and interdisciplinary integration, which provides for vertical and horizontal integration of knowledge and skills acquired by students in the study of humanities and social-economic disciplines, mathematical and natural science disciplines.

# As a result of mastering the discipline, the student shouldknow:

- content of the subject of pharmacology, its significance for medicine; types and structure of prescription forms;
- dosage forms of medicinal products, routes of administration Medicinal products; types of actions and interactions of medicinal products;
- general laws of drug pharmacokinetics and pharmacodynamics;
- the main pharmacological groups of drugs and their pharmacotherapeutic effects; side effects, types of adverse drug reactions and complications of drug therapy.

# Be able to:

- analyze the content of written prescriptions for drugs in various dosage forms;
- orient the drug nomenclature; find information about drugs in DM databases;
- analyze data on the pharmacological properties of drugs to assess the possibility of using them. Medicinal products for drug therapy;
- evaluate the possibility of toxic effects of drugs and methods of treatment of drug poisoning: ensure the intake of drugs, taking into account their methods of administration, dilution rules, dosage regimen and possible interaction;
- give recommendations to the patient on the use of drugs in various dosage forms.

# master:

- predict and determine the risk of side effects of drugs;
- provide explanations about prescribed medications;

- follow the rules of medical ethics and deontology;
- inform the patient about the planned drug therapy;
- explain patients the method and time of taking the drug or their combination.

# B. 3. 6 Clinical pharmacology

Labor intensity/complexity 4 credits

Lecture 52 hours

Practical classes 58 hours

Self-study 30 hours

Type of control: credit test (VI semester)

**Purposes:** mastering theoretical knowledge and practical skills of clinical pharmacology of medicinal products, rational use of medicinal products, taking into account their clinical and pharmacological characteristics.

#### Tasks:

- formation of fundamental knowledge about the holistic system of theoretical foundations of clinical pharmacology; factors affecting changes in metabolism, the action of drugs that increase the risk of developing cancer.
- undesirable effects based on:
- study and evaluation of clinical pharmacokinetic parameters of medicinal products;
- study and evaluation of the clinical pharmacodynamic effects of drugs;
- study of the relationship between the parameters of clinical pharmacokinetics and pharmacodynamics of drugs;
- evaluating the results of possible tool interactions;
- prediction and evaluation of adverse drug effects;
- study of the variability of clinical pharmacokinetics and pharmacodynamics of drugs depending on physiological conditions: age, pregnancy and lactation;
- study of evidence-based medicine and the levels of evidence of scientific publications; economic issues that contribute to improving the supply of medicines to medical institutions.

#### **Content:**

Today, it is obvious that clinical pharmacology has firmly taken its place among other basic disciplines of the medical profile. Training of healthcare professionals, starting from the middle level, should be based on the inclusion of the subject of clinical pharmacology in the teaching process in order to ensure that: adequate of knowledge to the tasks of practical activity.

Clinical pharmacology is one of the main components of modern therapy, occupying a key place in the patient's treatment system.

The practical activity of a nurse is directly related to the use of medicines — conducting pharmacotherapy as prescribed by a doctor, evaluating the effect of drugs on the patient, providing first aid in case of drug poisoning and adverse reactions. In this regard, in the system of training a qualified nurse, students need to have knowledge of the discipline "Clinical Pharmacology".

# As a result of mastering the discipline, the student should know:

- The main pharmacokinetic parameters of drugs in healthy individuals and in various pathologies, their variability and those of older age groups.
- Basic principles of pharmacokinetics for evaluating the effectiveness and safety of drugs.
- Principles and algorithms of clinical and pharmacological approaches to group selection
- the concept of "Standard of treatment", "Evidence -based medicine".
- Pharmacological groups of drugs to choose relieving the main symptom complexes in urgent conditions.

- Principles and approaches for selecting the dosage regimen of medicines depending on factors that depend on the drug and patients.
- The main effects of drug interaction, potentially dangerous combinations of drugs, chelating agents, inducers and- inhibitors of liver enzyme systems.
- Clinical and paraclinical methods for evaluating the effectiveness and safetyof the main groups of medicines.

#### be able to:

- Identify groups of drugs for the treatment of a particular disease based on the mechanism of action of drugs,
- the state of body functions and the predicted impact of planned pharmacotherapy on the patient 's quality of life based on current data from clinical pharmacology and evidence -based medicine.
- Analyze the rationality of drug selection according to the criteria of effectiveness and safety of a particular drug in the group of analogues for the treatment of the main symptom complexes.
- Make a choice of effective, safe and affordable medicines in accordance with the clinical diagnosis, taking into account the pharmacokinetics, pharmacodynamics, predicted adverse drug reactions of the drug, the effects of interaction with other drugs.
- Monitor the prescription of the dosage form of the drug and the optimal dosage regimen (dose, frequency of drug administration, duration of therapy).
- Choose appropriate methods for monitoring the effectiveness and safetyof medicines and predict the possible risk of adverse drug reactions.
- Taking into account the urgency of the condition and manifestation of the main symptom complex, justify the rationality and necessity of combined drug administration, correction of the dosage regimen when prescribing drugs that are inducers and inhibitors of liver enzyme systems.
- Use reliable sources of clinical and pharmacological information —clinical recommendations, reference books, electronic databases, Internet resources: Clinical practice guidelines, PUBMED, MEDSCAPE, Cochrane collaboration, etc.:
- choose a P-group (personal) of medicines depending on the diagnosis, clinical form (variants), stage of the disease and the purpose of treatment;
- choose a specific dosage form, route of administration, dosage regimens of the drug in a specific clinical situation;
- predict and determine the risk of developing side effects of drugs;
- conduct combined drug administration; follow the rules of medical ethics and deontology;
- inform the patient about the planned drug therapy;
- explain patients the method and time of taking the drug or their combination.

# B. 3. 7 Medical psychology

Labor intensity/complexity 6 credits

**Lecture 34 hours** 

**Practical classes 66 hours** 

Self-study 80 hours

Type of control: credit test (V, VI semester)

**Purposes:** mastering the basics of medical psychology, understanding the mental processes underlying the behavior of a healthy and sick person.

#### Tasks:

- to form students - future specialists

- philosophical and humanistic views on human and social life and understanding of the individual's mental activity;
- to achieve students 'assimilation of basic psychological concepts and patterns, which should be expressed in the ability not only to present coherently, but also to consciously apply this knowledge in practical activities;
- to form students' belief in the possibility of purposefully developing a person's psychological strength and abilities;
- equip students with methods of scientific and psychological research.

#### **Content:**

The course "Medical Psychology" is aimed at presenting the current state of the nature of the psyche, its specifics, structure and dynamics, as well as at TO present a system of categories and concepts with which science expresses all the variety of manifestations of human reality.

The subject of the study is the subjective world of a person; his system of relationships and relationships with other people, in the personal and professional sphere.

# As a result of mastering the discipline, the student should know:

- characteristics of psychology as a science;
- know the main categories and concepts of scientific psychology;
- know the main directions, approaches, theories in psychology and current trends in the development of psychological concepts;
- individual characteristics of a person, emotional and volitional regulation of his behavior, motivational sphere, self-consciousness,
- cognitive processes on the peculiarities of consciousness as the highest form of integrated mental activityon the basic laws of the functioning of the psyche.
- know the strategy of independent search, critical analysis, systematization and generalization of scientific information

#### Be able to:

- analyze different approaches to the categories of psychology and formulate your own definitions;
- scientifically substantiate one's own position in the analysis of psychological facts; give a reflexive assessment of one's own behavior;
- use the conceptual framework of psychology;
- use psychological concepts and definitions of various psychological schools.
- to carry out independent search, critical analysis, systematize and summarize scientific information.

# master:

- a system of theoretical knowledge on the main sections of psychology;
- skill of reflection
- skills of self assessment and critical evaluation of their actions skills of critical analysis and evaluation of performance ways to improve communication in the process of communication,
- analyze problematic situations in social and interpersonal conflicts.
- methods of independent search, critical analysis, systematization and generalization of scientific information.

B. 3. 8 Nursing patronage of a healthy family Labor intensity/complexity 16 credits Lecture 128 hours Practical classes 192 hours Self-study 160 hours

# Type of control: exam (V semester)

**Purposes:** Teaching the subject "Nursing care of a healthy family" should form students' basic professional knowledge and skills necessary for the activities of a nurse in the implementation of nursing care at the site.

# Tasks:

- To teach students the organization and rules of patronage of a healthy family.
- To give an idea of the general issues of a healthy lifestyle, healthy motherhood and fatherhood, about the peculiarities of the course of physiological pregnancy, childbirth and the postpartum period, about the rules of care and prevention of diseases in healthy people at different age periods.
- Teach qualified care for newborns and children of all ages. Teach qualified care for pregnant and postpartum women. Train qualified caregivers for the elderly and senile.
- Introduce the basic principles of medical ethics and deontology in working with various population groups.

# **Content:**

Knowledge about nursing care of healthy family members is the basis of preventive medicine, as it determines the tactics and planning of measures for the prevention and treatment of diseases in children, adolescents and adults. The implementation of nursing care requires or future specialists to know the features of the development of the child and adult body, including the period of formation of the reproductive function of men and women, physiological changes in the aging body. The program also covers issues of family planning, contraception, the course and management of physiological pregnancy, childbirth and the postpartum period. This knowledge will help future nursing professionals take care of healthy family members, including children, adults, and the elderly.

The program is intended for students of the Nursing faculty, where nurses with higher education are trained.

The program provides theoretical and practical training and consolidation of the acquired skills and abilities in the conditions of the gym, clinical base and training center of KSMA.

# As a result of mastering the discipline, the student must:

# Know:

- Definition of health. Factors affecting health.
- Principles of a healthy lifestyle (HLS). Elements of healthy lifestyle. Definition of reproductive health. Factors affecting the reproductive health of men and women.
- Principles and methods of family planning. Physiology of pregnancy. Management of physiological pregnancy, childbirth, and the postpartum period.
- Physiological features of the organs and human systems in the period of childhood, adolescence, young, mature, elderly and senile age.
- Basic principles and measures of healthy lifestyle, nursing care and monitoring of children and adults in different periods of life.
- The main volume of medical care for elderly and senile patients; functional responsibilities of a geriatric nurse; basic principles of care for the elderly and elderly at home and in the hospital.
- Key health prevention and nursing activities for healthyadults and children. Basics of healthy eating. The role of physical activity, work, daily routine, and personal hygiene in public health prevention. Principles and techniques of body hardening.
- Signs of stroke, heart attack, and intestinal obstruction in geriatric patients. Providing first aid for stroke, heart attack, and intestinal obstruction.
- The concept of health. Principles of healthy lifestyle. Physiological changes in a woman's body during pregnancy, childbirth, and the postpartum period.

- Principles of breast-feeding, artificial feeding, and mixed feeding. The concept of a healthy newborn, features of child development.
- Types of vaccination, complications and prevention of post-vaccination complications. Physiology of old age. The concept of a healthy old age.

## Be able to:

- Conduct sanitary and educational work on healthy lifestyle issues.
- Give recommendations for tempering children, adults, and the elderly.
- Advise patients on methods of contraception, prevention of reproductive diseases.
- Provide assistance in the management of physiological pregnancy, childbirth, and the postpartum period. Provide assistance in the care of newborns and children, including adolescents.
- Provide nursing care for elderly and senile patients.
- Provide care for the elderly and elderly at home and in the hospital. Trainelderly patients with reduced self-care capacity in self-help elements.
- Train relatives of elderly patients in the skills of caring for them and using devices that facilitate self-care and movement.
- Provide first aid in cases of heart attack, stroke, and intestinal obstruction.
- Conduct sanitary and educational work among the population on healthy lifestyle issues. Conduct tempering of healthy children, adults and old people.
- Conduct conversations about the importance of a healthy diet, physical activity, daily routine, good sleep, and personal hygiene disease prevention.
- Conduct interviews and provide assistance to women during pregnancy, childbirth and the postpartum period, provide nursing care for newborns, children before and after vaccination, provide nursing care for elderly and elderly patients at home and in health care facilities.

#### Master:

- Skills in communicating with population groups on healthy lifestyles and disease prevention.
- Skills of advising patients during pregnancy and childbirth on the prevention of pregnancy complications, skills of caring for newborns and children.

## **B. 3. 9. LAW SCIENCE**

Labor intensity/complexity 3 credits

Lecture 18 hours

**Practical classes 27 hours** 

**Self-study 45 hours** 

Type of control: credit test

**Purposes:** formation of the future doctor of the necessary level of theoretical knowledge about the main definitions and provisions of legal science, as well as the necessary skills of lawful behavior in the implementation of professional activities and ineveryday life; legal education, raising the level of legal awareness and legal culture.

#### Tasks:

- teaching students theoretical knowledge about the principles of rights, legal institutions, categories and the current level of development of legal science;
- teaching students the main provisions of the legislation of the Kyrgyz Republic in the field of health and the environment;
- training students in the interpretation and application of legal norms of various branches of law to specific legally significant facts;

- training students in correct legal orientation in the current legislation on healthcare in the Kyrgyz Republic and its adequate application in specific practical situations;
- introduction of students with the rights of citizens, individual groups of the population and patients to health protection, guarantees of medical and social assistance;
- introduction of students with the rights and obligations of medical workers in medical institutions, various structures of the health care system, the principles and provisions of their social and legal protection, legal responsibility for offenses in the implementation of professional activities;
- educate students to respect laws and other normative legal acts as a fundamental guarantor of the rights, freedoms and interests of citizens and society.

Content: Fundamentals of the theory of state law. Legal basis of healthcare management in the Kyrgyz Republic. Medical law. Subject of medical law. Subjects of a legal relationship arising in the provision of medical care. Content of the legal relationship that arises in the course of medical activity. Fundamentals of criminal law. Various branches of law. Health protection in the Kyrgyz Republic: organization, principles, tasks, guarantees, system of insurance medicine. The rights of citizens, certain groups of the population and patients in the field of health protection. Rights. Social Network protection, duties and responsibilities of the health worker. Law "On Sanitary –and epidemiological welfare of the population of the Kyrgyz Republic". Regulations on licensing of medical and pharmaceutical activities. Legal basis of healthcare management in the Kyrgyz Republic. Fundamentals of labor law. A measure for evaluating the quality of medical services. Performing an assessment of professional actions. Crime against the life, health, dignity of citizens, public safety and public health. Compensation for damage caused to the health of citizens in case of improper provision of medical services. Guarantees of medical and social assistance to citizens and medical expertise. Resolution of medical and legal disputes. Constitutional law. Society-Law-Medicine. Fundamentals of the Laws "Protection of maternity", "Protection of the rights of children and minors". Healthcare system of the Kyrgyz Republic. Objects of a legal relationship that occurs during the provision of medical care. Legal basis of a doctor's liability in case of committing an illegal act. The right to engage in medical activities in the Kyrgyz Republic. Legal basis of citizens' health insurance. Legal aspects of transplantology and resuscitation. The concept and principles of public international law. Fundamentals of social security law. The concept of an official crime and an official in the healthcare system. Fundamentals of environmental law. Violation of the rules for handling c drugs andstrong substances.

## As a result of mastering the discipline "Law science", the student should know:

- Fundamentals of the Law "On Health protection of citizens of the Kyrgyz Republic".
- About the protection of motherhood and childhood.
- About the subjects of legal relations that arise in the provision of medical care.
- Content of legal relations arising in the course of medical activity.
- Basics The Law on Health Insurance.
- Fundamentals of the Law on Sanitary and Anti epidemic Welfare of the Population
- Articles of the Criminal and civil Administrative Codesrelated to medicine.
- General principles of conflictology.
- Medical and legal issues of legal procedure.
- Fundamentals of the Constitution of the Kyrgyz Republic.

#### be able to:

- Analyze articles of the basic laws on health protection, on sanitary and epidemic well-being and use them in practical activities.
- Apply the basics of civil, criminal, and administrative law in practice.
- Resolve medical and legal disputes.

- Disclose and analyze changes in the healthcare system that have occurred in recent years. The republic as a result of social-economic transformations.

#### Master:

- Training skills in the care of relatives of the patient and elements of self-care of a geriatric patient.
- Skills of communication with the population on issues of healthy nutrition, rational work and rest, healthy sleep, and personal hygiene.
- Skills in communicating with children and adults on health issues, preventing pregnancy and childbirth complications, caring for healthy newborns and children, caring for elderly and elderly patients and their relatives.

## **B. 3. 10 Nursing manipulation**

Labor intensity/complexity 3 credits

Lecture

**Practical classes 362 hours** 

Self-study 178 hours

Type of control: exam (VII semester)

**Purposes:** The purpose of studying the discipline "Nursing manipulations" is to form students 'basic professional knowledge, skills and abilities of a nurse that meet modern requirements of practical medicine, successfully apply their knowledge and skills in providing primary health care and performing nursing manipulations to care for patients.

#### Tasks:

- training students in the basic duties of nursing specialists in the conditions of health care institutions 'work;
- formation of students ' fundamental knowledge, skills and abilities in the field of nursing and nursing care :
- formation of skills in providing urgent pre-medical care in case of sudden critical conditions (bleeding, cardiac arrest, acuterespiratory failure, etc.);
- formation of methods of care for patients with the most common diseases and training in the technique of medical procedures and manipulations;
- teaching students the principles of medical ethics and deontology, instilling love fortheir chosen profession.

#### **Content:**

The program provides students with introduction with the standards and protocols for performing various nursing manipulations and mastering their skills and abilities to perform them, as well as the rules of assisting with them.

The program contains the necessary amount of information on nursing manipulations, taking into account modern achievements in diagnosis, treatment and evidence -based nursing practice. Also provides the following sections: nursing process, patient preparation for surgery, patient care after surgery, children's preparation for surgery, child care after surgery, cancer patients ' care, methodsof applying bandages and providing first aid in emergency situations.

## As a result of mastering the discipline, the student must:

## know:

- definition of healthy lifestyle. Principles and elements of healthy lifestyle.
- classification of surgical instruments. Types by design and functional purpose. Requirements for surgical instruments. The concept and rules of asepsis and antiseptics. Methods of disinfection and sterilization.

- Stages pre-sterilization cleaning. Types of bix laying. Types of cleaning operations. Cleaning of the operating unit.
- features of preparing patients for surgery (elderly, children). Features of patient care after surgery. Features of cancer patient care.
- Features of care for pregnant women and women in labor. Features of newborn and infant care . The concept of desmurgy. Types. Methods.
- general provisions, functional duties, and rights of a senior nurse, procedure nurse, dressing nurse, ward nurse, post nurse, operating room nurse, and emergency department nurse.
- Existing nursing documentation types and forms to fill out.
- Laws of the Kyrgyz Republic All nursing standards for patient care. Current orders of the Kyrgyz Republic. Classification of waste.
- Norms of human physiological parameters: head and chest circumference, body mass index, blood pressure, pulse rate, respiratory rate, body temperature.
- Periods of fever their clinical manifestations organization of care. Determination of blood type and Rh-factor.
- Causes and main stages of development of pathological conditions. The concept of nursing process.
- types of use of medicines, indications and contraindications for the use of medicines, blood substitutes, vaccines and chemotherapy drugs. Destination goal.Methods of application.
- Rules for dilution, dosage and administration of medicines. Possible complications.
- the importance of personal hygiene for the prevention of diseases and complications. The role of a nurse in conducting hygiene measures. Biomechanics and patient's body position. Transportation of the patient.
- signs of falling blood pressure, hypoxia, acute heart failure (fainting, collapse). Signs of clinical and biological death, angina pectoris, myocardial infarction, poisoning, ED injuries, and bleeding. Signs of various degrees of burns and frostbite.
- Principles of nutrition of patients, its significance in the treatment process. The value of diet therapy as an essential component of general disease therapy and prevention of complications.
   Medical tables. Methods of feeding patients depending on the condition and diagnosis, features and indications.

## Be able to:

- conduct sanitary and educational work on healthy lifestyle issues .Conduct a conversation on disease prevention.
- rules for using surgical instruments (scissors, scalpel, tweezers, etc.), preparing the surgical table, rules for working with disinfectant solutions, storage and quality control. Carry out disinfection and disposal of used materials. Perform pre-sterilization cleaning and quality control of pre-sterilization cleaning. Rules for laying bixes.
- carry out the nursing process in the preoperative and postoperative period: conduct an initial assessment, identify a patient's problem, plan nursing care, implement planned care, and conduct ongoing and final care assessments. Post -operative wound care. Applying bandages.
- Correctly fill out medical records and logs, work with standards and current orders, and dispose of waste.
- use simple clinical signs, assess the patient's condition (arterial pressure).
- blood pressure, pulse rate, respiratory rate, temperature, etc. Provide nursing care for fever.
- Identify blood types.
- rules for dilution and administration of medicines, blood substitutes, vaccines and chemotherapeutic agents.
- Assess conditions for various changes in the patient's condition and inform the doctor.
- take care of various parts of the body (skin, eyes, ears, mouth, external genitals, etc.).

- Properly transport the patient with a wheelchair.
- professionally provide first aid for fainting, collapse, airway blockage, clinical death, angina attack, myocardial infarction, fractures, bruises, dislocations, bleeding, poisoning, burns, frostbite.
- Plan feeding assistance for the patient. Prepare food and equipment for feeding the patient through spoons, through a drinking cup, through a nasogastric tube, through a gastrastoma
- Carry out sanitary and hygienic cleaning and monitoring of the condition of nightstands, refrigerators, and the shelf life of food products..

#### Master:

- information about health and healthy lifestyle, conducting a conversation about healthy lifestyle.
- techniques for working with surgical instruments and disinfecting solutions. Disinfection of used materials and disposal of medical waste, carrying out all types of cleaning. Techniques for performing pre-sterilization cleaning of tools.
- the ability to perform all nursing manipulations to care for patients Heregardless of gender and age with various pathologies according to the standards.
- The technique of applying various bandages by type and method.
- skills to control the correctness of the technique of performing nursing standards.
- techniques of anthropometry (measurement of height, weight), measurement of physiological parameters (blood pressure, pulse rate, respiratory rate, etc.), determination of blood type and Rh- factor.
- parenteral drug administration techniques. Observe asepsis andantiseptics.
- the technique of performing hygienic care for various parts of the body. Patient transportation techniques.
- Heimlich's treatment for airway blockage, a technique for helping withfainting, collapse, etc.
- The technique of providing cardiopulmonary resuscitation by the method of Safara.
- Ways to temporarily stop bleeding. The technique of gastric lavage for food poisoning, the technique of providing assistance for various types (thermal, chemical, radiation) degrees, the area of burns and frostbite.
- the technique of feeding the patient through spoons, through a drinking cup, through a nasogastric tube, through a gastrastoma.
- Equipment for sanitary cleaning of premises.

## B. 3. 11 The nursing process in the clinic

Labor intensity/complexity 8 credits

Lecture 62

Practical classes 93 hours

**Self-study 85 hours** 

Type of control: exam (VI semester)

**Purposes:** Acquisition by students of the knowledge and skills required by nursing professionals with higher education to carry out effective treatment and prevention work, in mastering students' theoretical knowledge and practical skills in making a nursing diagnosis and providing them with nursing care in emergency situations

## Tasks:

- Training of students in the basic duties of nursing specialists in the working environment of medical institutions
- Formation y of students' fundamental knowledge and skills in the field of clinical pathology

- Developing skills in making a nursing diagnosis and organizing in nursing care
- Developing skills in providing nursing care in emergency situations
- Educating students on the principles of medical ethics and deontology

#### **Content:**

Since there is currently an increased focus on the higher education system, there is a need to review the level and quality of training of nurses with higher education

In this regard, the program on" Nursing process in the clinic "provides for the training of qualified nursing specialists who are able to orient the issues of etiology and pathogenesis, making a nursing diagnosis, symptoms, care, providing nursing care according to the stages of the nursing process, as well as the prevention of various diseases of internal organs. After completing this course, the student must have full knowledge and skills on the application of the nursing process in a clinical setting.

## As a result of mastering the discipline, the student should know:

- the role and place of emergency medical care in the organization of qualified medical care for the population.
- Types of medical care.
- the concept of prevention, types of prevention. Measures taken among the population to prevent morbidity.
- Health promotion activities.
- General laws of the origin and development of life.
- Cell structure and function
- Factors affecting the health of the population.
- Norms of ethics and deontology in nursing practice.
- Communication skills of a family nurse with patients, depending on gender and age.
- The concept of the nursing process.
- Stages of the nursing process. Interpretation of patient examination results.
- Setting up and formulating the nursing process. Regulatory documentation and filling techniques.
- Definition of asepsis and antiseptics.
- the concept of disinfection and sterilization. Methods of disinfection and sterilization.
- Standards for performing various manipulations in the care of patients in outpatient settings with various pathologies, as well as for seriously ill patients at home.
- Principles of providing first aid in emergency situations.
- The nature of changes in the patient's quality of life in various diseases. Features of the organization of nursing care in various severe conditions.
- Evaluation of the effectiveness of nursing care for seriously ill patients at home by medical staff and their relatives.
- Classification of the most common infectious and non-communicable diseases. The concept of
  prevention. Types of prevention. The role of the family nurse in the prevention of infectious
  diseases. Features of the course of infectious diseases.
- norms of human physiological parameters (head and chest circumference, body mass index, blood pressure, pulse rate, respiratory rate, body temperature).
- periods of fever, their clinical manifestations, principles of care for it. Causes and main stages of development of pathological conditions that arise as a result of acute diseases, traumatic lesions, poisoning for the provision of reasonable and adequate pre-medical care.

### Be able to:

- Evaluate the patient's condition. Measure blood pressure, pulse, body temperature, etc. Give different types of injections. Provide assistance in various emergency situations.
- Provide nursing care for the seriously ill at home. Train patients 'relatives to take care of them.

- Diagnose infectious diseases. Evaluate the patient's condition in case of an infectious disease.
- Organize the care of an infectious patient. Carry out prevention of complications. Conduct sanitary education work among the population., based on simple clinical signs, assess the general condition of a suddenly ill or injured person (state of consciousness, cardiovascular, respiratory andurinary systems, pulse, blood pressure, nature, frequency and type of breathing).
- Provide nursing care for fever.

#### Master:

- information about health and healthy lifestyle, conducting a conversation about healthy lifestyle.
- techniques for working with surgical instruments and disinfecting solutions.
- Disinfection of used materials and disposal of medical waste, carrying out all types of cleaning.
- Techniques for performing pre-sterilization cleaning of tools.
- the ability to perform all nursing manipulations to care for patients Heregardless of gender and age with various pathologies according to the standards.

## **B. 3. 12 Introduction to nursing**

Labor intensity/complexity 2 credits

**Lecture 32 hours** 

**Practical classes** 

Self-study 28 hours

**Type of control: credit test (III semester)** 

**Purposes:** The main goal of studying this discipline is to provide students with maximum orientation in their future professional activities in the field of nursing, as well as to introduce them with the basic concepts and functions of nursing.

#### Tasks:

To provide maximum orientation in future professional activities in the field of nursing, as well as introduction with the basic concepts in nursing.

**Content:** This discipline is one of the most important subjects for future nursing professionals with higher education.

This subject introduces students to the history, place, role and philosophy of nursing, both in our country and abroad, with the concept, purpose and stages of the nursing process as the main concept of modern models of nursing.

It promotes the formation of a conscious attitude towards the chosen profession among future nurses and introduces them to the moral concepts, principles and traditions of nursing .

All this will allow students to better understand the essence of the future profession, learn the legal and legal basis of nursing and the main activities of nursing specialists in various types and departments of medical care.

Future nursing professionals will learn about the concept, purpose, and stages of the nursing process, the principles of providing and managing nursing care, and the importance of prevention, treatment, rehabilitation, and psychological support for the patient and family.

In addition, the study of this discipline will help to instill in students respect for the future profession and the principles of medical ethics and deontology, the formation of their fundamental knowledge about communication in the professional activity of a nurse.

## As a result of mastering the discipline, the student should know:

- Theory and philosophy of nursing;
- Common human needs;
- The role of a nurse in maintaining the health of a person and society;
- Structure of health care facilities;
- Functional duties of a nurse:
- Basic types of medical documentation;
- Stages of the nursing process;
- Principles of ensuring infectious safety of the patient and nurse;
- Methods and forms of communication;
- Questions of ethics and deontology.

#### Be able to:

- Identify common human needs.
- Promote the principles of a healthy lifestyle;
- Be guided in the organization of health facilities and their structure;
- List the functional responsibilities of a nurse;
- Maintain and complete basic types of documentation.
- Determine the stage of the nursing process.

#### Master:

- Implement the stages of the nursing process: conduct an initial nursing assessment, identify patient problems, plan nursing care, implement planned care, conduct ongoing and final care evaluation;
- Carry out the nursing process in the preoperative period: conduct an initial assessment, identify patient problems, plan nursing care, carry out planned care, conduct an ongoing and final assessment of care;

- Apply modern nursing technologies to prevent nosocomial infection;
- Teach the patient and family the rules using medicines and organizing therapeutic nutrition;
- Interact with the treatment team;
- Analyze and evaluate the performance of medical organizations based onstatistical data;
- Work and organize work in accordance with the procedures for providing medicalcare.

## B. 3. 13 Research methodology in nursing

Labor intensity/complexity 2 credits

Lecture 18 hours

**Practical classes 24 hours** 

Self-study 18 hours

**Type of control: credit test (VIII semester)** 

**Purposes:** is to introduce students to the problems of research in nursing practice, identify ways to improve the quality of nursing services and teach them the skills of conducting research in nursing.

#### Tasks:

- Study of scientific research and methods of conducting it to find the best ways for future nurses to care for patients,
- understand and identify ways to improve the quality of nursing care;
- Study of the development of research in nursing,
- methods of evaluating research results, stages and methods of research, skills in statistical processing of data obtained, as well as the relationship between research work, theory and nursing practice.
- Increase the level of knowledge and skills to develop future specialists 'scientific potential in the future.

**Content:** the program pays great attention to the methods and principles of scientific research, data collection and processing, as well as their statistical analysis, and also provides for the formation of students 'skills in conducting and designing scientific research, the procedure for defending scientific work and applying the results of scientific research in nursing practice. Studying the methods of scientific research and how to conduct them will allow future nurses to conduct research in the field of nursing, the effectiveness of organizing patient care and assessing his condition.

## As a result of mastering the discipline, the student should know:

- the concept of "research in nursing".
- the importance of scientific research in nursing.
- the role of nurses in research.
- methodology of scientific research.
- types of research used in nursing.
- methods of statistical analysis.
- the role of practical research in solving actual problems of nursing practice.
- stages of research in nurrsing.
- Application of research results in nursing business.

### Be able to:

- be able to demonstrate basic knowledge and understanding of the importance of research in nursing practice, the process of scientific research, the process of critical reflection on practice and analysis, and the nursing scientific literature.
- be able to conduct a literature search.
- Create a bibliographic list using a recognized method of bibliographic references.
- demonstrate knowledge, understanding, and critical analysis of the research process, the most common types, methods, and tools of research, the complementary nature of quantitative and qualitative research methods, and the ethical aspects of nursing and medical research.
- form an appropriate position regarding the important role of research in nursing practice and develop skills for critical analysis of scientific articles.

#### Master:

- Knowledge and understanding of the importance of research in nursing practice,
- the process of scientific research in evidence-based medicine,
- knowledge and understanding of the nursing scientific literature.
- Experience in conducting research in nursing,
- understanding the importance of strengthening the relationship between scientific and practical activities in nursing .
- Conduct a literature search, compile a bibliographic list, using a recognized method of bibliographic references.
- Applications of scientific research results in nursing.

## B. 3. 14 Methodology of teaching nurses

Labor intensity/complexity 10 credits

Lecture 60 hours

**Practical classes 124 hours** 

Self-study 116 hours

Type of control: credit test (IX, X semesters)

**Purposes:** The purpose of this course is to develop students 'skills and abilities of independent research and scientific-pedagogical activity; in-depth study of methodological and theoretical foundations of pedagogical activity; implementation of nursing education, including those focused on the professional activities of future nursing specialists.

## Tasks:

- The objectives of teaching this subject are aimed at developing students ' fundamental knowledge, skills and abilities in the field of teaching special disciplines in nursing.
- Important tasks of teaching the discipline are introduction and training of students:
- with basic concepts, principles, and teaching methods;
- with the forms of training sessions (lecture, seminar, practical lesson, etc.);
- master the technology of developing educational guidelines, curricula and programs, as well as methods of knowledge control and presentations;
- ensuring systematic assimilation by students of the theoretical foundations of the organization and implementation of a modern continuous educational process in a medical institution, in a medical educational institution;
- formation of students 'ability to choose and effectively use pedagogical technologies that correspond to the goals and content of medical education;
- formation of skills in preparing and conducting the main types of training sessions(lectures, seminars, practical classes, etc.) in nursing disciplines

Content: Program on the discipline "Methodology of teaching nurses" designed for teaching students of the faculty Higher Nursing Department in accordance with the requirements for the knowledge, skills and qualifications of the graduate. Teaching methods of great importance for students - graduates of the Higher Medical School who plan to devote themselves in the future teaching and training nurses. The reform of the healthcare system involves expanding the role of nurses and transferring the role of nurse training to nurses themselves, and therefore this discipline is very relevant. The purpose of the program corresponds to its content and helps future teachers master the principles of pedagogy and psychology in teaching special

## As a result of mastering the discipline, the student should know:

- KR Legislation in the field of education, law.
- Responsibilities of subjects of the educational process -managers, teachers, students.
- The system of secondary medical and higher nursing education in the Kyrgyzstan and abroad.
- Structure, goals and objectives of secondary medical and higher nursing education and the main ways to improve its quality in modern conditions.
- Requirements for the minimum content and level of training of graduates of educational institutions for training nursing specialists established by state educational standards.
- Training documentation: curricula, programs, textbooks and teaching aids, didactic materials on special nursing disciplines.
- Theory of teaching and learning.

disciplines in nursing.

- Training methods. Lectures. Seminars. Round table discussion. Practicum. Active learning methods.
- Principles of drawing up curricula and programs for training specialists.
- Methods and means of training, organization of independent work and clinical instruction.
- Methods of pedagogical knowledge control.
- Ways and methods of improving the teacher's pedagogical skills.
- General forms of organization of educational activities, methods, techniques, means of organizing and managing the pedagogical process, specifics of pedagogical work in groups of different ages, methodological literature, basics of planning the educational process.

#### Be able to:

- Use the acquired knowledge, skills and abilities in the process of planning, organizing and implementing their teaching activities.
- Plan the goals and content of training in accordance with the state ducational standard, curriculum and program.
- Select pedagogical technologies (forms and methods, teaching tools) that are adequate to the goals and content of education .
- Use basic methods of pedagogical diagnostics and control of program material assimilation.
- Develop students ' cognitive and professional motivation. Prepare didactic material for the course being taught.
- Develop training programs and plans for nursing.
- Conduct a pedagogical experiment and use its results to improve the quality of teaching.
- Create a pedagogically appropriate and psychologically safeeducational environment.

#### Master:

- Apply active forms and methods of training.

- Apply knowledge of adult learning principles.
- Plan the learning process, create training programs.
- Evaluate the level and quality of students 'knowledge.
- Use audio-visual training tools.
- Develop tests and situational tasks for special disciplines.

## B. 3. 15 Emergency care with the basics of resuscitation

Labor intensity/complexity 4, 6 credits

Lecture 28 hours

Practical classes 68 hours

Self-study 42 hours

**Type of control: credit test (IX semester)** 

**Purposes:** provide basic knowledge in the field of emergency care, anesthesia and resuscitation мероприятий.

#### Tasks:

- To teach students the basics of emergency care for critical conditions caused by diseases of the respiratory, cardiovascular, nervous, endocrine and other body systems.
- Teach students practical first aid skills in case of respiratory and circulatory arrest.
- Provide knowledge about modern types of pain management and management of vital functions of the body.
- Teach methods of pain syndrome treatment in polyclinic settings, in an ambulance, in hospitals.

**Content:** Studying the basics of anesthesiology and resuscitation and emergency care is the most important aspect of training medical professionals in various specialties. The achievements of this science are now widely implemented in the practice of healthcare, and therefore every doctor and nurse should know the methods of emergency care, anesthesia and resuscitation.

The nurse provides first aid and becomes the most important link at the stages of emergency care in critical situations. It is difficult to overestimate the work of secondary medical personnel in the operating room and in the intensive care unit. Since they are the ones who provide the necessary care for patients, many medical manipulations of the patient are a difficult task. Moreover, these circumstances determine the need to distinguish emergency care, anesthesiology, and resuscitation asan academic discipline in the training of nurses with higher education.

## As a result of mastering the discipline, the student should know:

Total questions of resuscitation:

- definition of critical care medicine as a discipline,
- tasks and methods of resuscitation,
- the principle of work of department of resuscitation with chambers of intensive therapy,
- the basic principles of care for patients in the departments of intensive care,
- the classification of terminal states, the types of death, clinical signs of death
- biological death,
- the simplest kinds of cardiopulmonary resuscitation in the prehospital phase
- IV specialized medical institution,

- the concept of post-resuscitation disease
- Common questions of anesthesiology:
- definition of anesthesiology as a discipline,
- role of modern anesthesiology in the system of medical specialties,
- classification of modern anesthesia,
- local and General anaesthesia,
- risk and complications,
- the stages of anesthesia,
- the role of the nurses of anesthesia during the conduct of anesthesia
- methods of accounting narcotic and potent tools,
- equipment for anesthesia, the sterilization of instruments used in the course of anesthetic benefits
- Ethical and legal issues, issues of deontology in anesthesiology and resuscitation
- Emergency conditions in the pathology of various organs and systems of the body (emergency conditions in cardiology, pulmonology, endocrinology, gastroenterology,

infectious diseases, injuries, obstetrics and gynecology, geriatrics, oncology and

hematology, etc.

## Be able to:

- Be able to perform the simplest methods of resuscitation: artificial ventilation «mouth to mouth", «mouth to nose", indirect heart massage, complex recovery measures.
- Be able to diagnose clinical death.
- Be able to monitor the effectiveness of resuscitation measures and prevent complications of resuscitation post-hypoxic brain edema, asystole, hypoxia.
- Be able to choose the method of treatment of pain syndrome in patients of various profiles in the pre-hospital period and during transportation to specialized departments.
- Be able to provide emergency care for injuries, burns, bleeding, acute respiratory failure, childbirth, hyperthermic conditions.
- Be able to conduct infusion therapy, takecare of seriously ill and dying patients.

## **B. 3. 16 Nursing in rehabilitation**

Labor intensity/complexity 5 credits

**Lecture 32 hours** 

Practical classes 73 hours

Self-study 45 hours

**Type of control: credit test (IX semester)** 

**Purposes:** Students gain knowledge on the basics of physiotherapy, balneology, physical therapy and massage for full-fledged complex therapy of patients, as well as rehabilitation and preventive measures to restore the functional state of the body and prevent diseases.

## Tasks:

- To give students the opportunity to study in detail the physical characteristics of natural and preformed physiotherapeutic factors, the principles of physiotherapy equipment design, mechanisms
- physiological and therapeutic effects of physical factors on the body, taking into account the peculiarities of the course of pathological processes, as well as indications and contraindications for the appointment of physiotherapy, as well as the organization of

- physical rooms and departments, safety equipment according to modern equirements.

**Content:** The current level of medical knowledge and scientific and technological progress have ensured the widespread use of natural and preformed physical factors in the prevention, treatment and rehabilitation of patients with various pathological conditions. Their rational use contributes to faster recovery or compensation of body functions disrupted by the disease. The possibility of the transition of the pathological process to a chronic one is reduced and some negative effects of drug therapy are leveled.

## As a result of mastering the discipline, the student must:

#### Know:

- the mechanism of physiological action of physical factors, basic means, forms and rules of physical exercises.
- Basic means and forms of physical therapy, special exercises for various diseases.
- Indications and contraindications to the appointment of physical factors, spa treatment and therapeutic physical culture;
- basic means, form and rules of application of therapeutic physical culture

#### Be able to:

- use the methods of physiotherapy, balneology and physical therapy for the rehabilitation of patients with various diseases.
- substantiate the motor mode,
- draw up a scheme of physical therapy classes,
- determine the tasks of physiotherapy, balneology and therapeuticphysical culture at the inpatient, outpatient and sanatorium-resort stages of rehabilitation

## master:

- skills of using basic and preformed physical factors, complexes of therapeutic physical culture for the purpose of carrying out rehabilitation activities.
- physical therapy complexes for various pathologies.
- medical rehabilitation complexes and methods for evaluating the effectiveness of the measures taken, taking into account indications and contraindications.

## B. 3. 17 Clinical nursing

Labor intensity/complexity 6 credits

Lecture

**Practical classes 93 hours** 

Self-study 87 hours

Type of control: credit test (VII, VIII semesters)

**Purposes:** The aim of the discipline is to train nurses in the proper organization of care for patients of different ages with different pathologies in a hospital setting and the development of critical thinking.

In this discipline, it is necessary to pay attention to the application of the stages of the nursing process in practical activities in the care of inpatient patients.

#### Tasks:

- To train nurses in all available skills and knowledge necessary to provide patients with maximum comfort, within their competence.

- to teach nurses to make extensive use of all the possibilities of scientifically based professional standards for their professional development.
- achieving an acceptable quality of life for the patient in the event of illness, providing with physical, psychosocial and spiritual comfort, taking into account its culture and spiritual values.

**Content:** Program of the discipline "Clinical Management Nursing" is intended for training students of the Faculty of "Higher Nursing Education". The subject of "Clinical Nursing" is studied after passing such disciplines as: "Physical examination", "Healthy family", "Clinical pathology". It is very important to study this subject in parallel with medical bioethics and medical psychology. The program is designed in such a way that it is possible to consolidate the acquired practical skills in nursing manipulations, for which special hours for practical classes are provided, so that students directly take care of patients in a hospital setting.

## As a result of mastering the discipline, the student should know:

- Nursing process. Definitions. Stages of the nursing process. Functional duties of an admissions nurse.
- Documentation of the admissions office.
- Sanitary and hygienic treatment of the patient.
- Medical and protective regime in the department.
- Deontological aspects in the work of nurses in the hospital.
- The main symptoms are characteristic of respiratory diseases: bronchitis, pneumonia, pleurisy, BEP, lung abscess, pulmonary tuberculosis.
- Symptoms of asthmatic status, pulmonary hemorrhage, spontaneous pneumothorax and principles of emergency care.
- Methods of instrumental research in diseases of the respiratory system. The method of performing a pleural puncture.
- Preparation of patients with pulmonary pathology for instrumental and laboratorytests.
- Features of care and monitoring of patients with pulmonary pathology.
- Principles of treatment of respiratory diseases.
- The main symptoms characteristic of diseases of the cardiovascular system: endocarditis, myocarditis, pericarditis, angina, myocardial infarction, hypertension, heart defects, cardiac asthma, syncope, collapse, shock. Measures are included in emergency pre-medical care for hypertensive crisis, angina pectoris, myocardial infarction, pulmonary edema, and cardiac asthma.
- Features of patient care for diseases of the cardiovascular system. Preparation of patients for instrumental examination: echocardiography, phonocardiography.
- The main symptoms characteristic of anemia, hemorrhagic diathesis.
- The method of performing a sternal puncture.
- Principles of treatment of hematological patients. Complication of diabetes mellitus.
- Principles of treatment and care for patients with diabetes mellitus and thyrotoxicosis. Methods of providing first aid in diabetic comas.
- The main symptoms of rheumatoid arthritis, deforming osteoarthritis.
- Laboratory diagnostics and X-ray examination for joint diseases. Principles of treatment and care for patients with rheumatoid arthritis, deforming osteoarthritis.
- Acute allergic reactions : anaphylactic shock, edema Angioedema and serum sickness. Complaints and symptoms.

- Principles of providing first aid for anaphylactic shock, edema Angioedema,treatment of serum sickness.
- Identification of traumatic and transfusion shocks, signs and emergency care.
- Signs of emergency care. Signs of clinical death.
- The main elements of resuscitation. Rules for handling corpses.
- Symptoms of dysentery, salmonellosis, cholera, typhoid fever
- Symptoms of viral hepatitis, HIV infection.
- Symptoms of rabies, anthrax. Symptoms of measles, diphtheria, and meningitis.
- Principles of treatment of infectious diseases: etiotropic, pathogenic and symptomatic treatment.
- Features of care for infectious patients. Program "Tuberculosis", "Immunoprophylaxis"

#### Be able to:

Apply the nursing process. Assess the patient's condition.

Make a nursing diagnosis. Make a nursing care plan. Issue medical documentation.

Provide care and follow-up for patients with pulmonary pathology. Provide nursing care and follow-up for patients with cardiovascular diseases.

Carry out nursing care and observation of patients with diseases of the blood andhematopoietic system.

Carry out nursing care and observation of patients with pathology of the gastrointestinal tract.

Provide nursing care and follow-up for patients with kidney disease. Provide nursing care and follow-up for patients with diabetes mellitus andthyrotoxicosis.

Carry out nursing care and observation of infectious patients. Provide first aid in case of emergency conditions.

Prepare the patient for laboratory and instrumental research methods.

Ensure a sanitary and hygienic regime in the ward.

Explain the importance of following a diet for certain diseases.

#### Master:

Sanitize the patient

Treatment of pediculosis

Prepare disinfection solutions for the current disinfection. Transport the patient

Create psychological peace of mind for the patient

Perform anthropometric measurements

Measure the temperature, enter it in the temperature list

Conduct a sample of medical appointments

Distribute medicines

Perform the simplest physical therapy: mustard plasters, cans, hydrotherapy, compresses

Fill out a list of patient movement and bed capacity-hospital

Perform a breath count

Perform auscultation and percussion of the lungs

Anthropometric chest measurements

Determine the vital capacity of the lungs

Createa care plan for these patients

Prepare everything necessary for a pleural puncture

Teach the patient the rules for handling the inhaler

Apply moistened oxygen

Conduct an external examination of the patient

Measure blood pressure

Count heart rate

Perform gastric lavage

Sterilize the probes

Perform gastric probing

Setting up a gas outlet pipe

Perform duodenal probing.

Perform gastric lavage

Make a cleansing and siphon enema Prepare everything necessary for catheterization

Prepare everything necessary for performing a spinal tap and assist the doctor

Provide care for infectious patients

Determine the state of clinical and biological death

Perform artificial ventilation of the lungs: "from mouth to mouth", "from mouth to nose"Perform an indirect heart massage

Do intradermal, subcutaneous, intramuscular, intravenous injections

Conduct a sample Mantoux

Charge the system for intravenous infusion

Determine the blood type, Rh factor

Determine the biological compatibility of blood

Determine the validity of blood

Take a blood sample for general analysis

Take blood sugar tests

Take blood for a medical examination

Rules for collecting urine for general analysis

Correctly collect urine for daily diuresis

To take sputum for microbacteria of tuberculosis. To take sputum to determine the daily diuresis To take sputum for sensitivity to antibiotics. To collect vomit on the backsplash.

Properly collect feces for eggs worms and protozoaWrite out a referral to the laboratory

Prepare everything necessary for lumbar, abdominal, pleuraland sternal punctures

Perform disinfection of patient care items.

## B. 3. 18 Age psychology and pedagogy

Labor intensity/complexity 4, 5 credits

**Lecture 34 hours** 

**Practical classes 46 hours** 

**Self-study 55 hours** 

**Type of control: exam (IX semester)** 

**Purposes:** The purpose of studying the discipline is to introduce students to the independent branch of psychological science "Age psychology and pedagogy", as well as to expand their knowledge in the field of studying human mental development in ontogenesis. Mastering the course "Age -related psychology and pedagogy" in professional practice activities and promotion of the formation and development of special professional competence of a specialist.

#### Tasks:

- to reveal the methodological foundations of research in the field of age psychology.
- show the peculiarities of mental development at each age stage.
- formation of an idea of the sections of age and psychology and pedagogy in professional activities;
- formation and development of psychological knowledge among students;
- mastering the categorical apparatus of psychological science;
- development of the scientific worldview, value orientations, needs, motivation for teaching and tolerance of future specialists;
- development of psychological thinking when solving problems in future professional activities;
- formation of a humanistic, psychological position in relation to the developing personality.

**Content:** The course "Age Psychology and Pedagogy" continues the cycle of psychological disciplines necessary for improving the psychological culture of future doctors, their professional and psychological training. The course of age psychology is a logical continuation of the course of general psychology, so it provides for a return to the system of concepts and practical actions related to the course of general psychology (with different age periods).

In the course of studying these disciplines, students should acquire knowledge on the problems of ontogenesis of various mental processes and personality traits, as well as with the peculiarities of the profession of a psychologist. Be able to use psychological knowledge in practical activities. After studying these disciplines, students should know the patterns of social-psychological phenomena, be able to operate with social- psychological concepts, and have the skills of harmonious communication with people. Know the stages of development of psychological science, be able to critically comprehend various theories of different stages, highlight the positive things that can be used at the present stage.

## As a result of mastering the discipline, the student must:

### know:

- basic categories of the concept of psychological science;

- functions of the psyche, psychological characteristics of people of different ages and genders,
- social-psychological characteristics of groups of people
- use systematic methodological, theoretical and practical knowledge in solving professional problems
- take into account the mental and age characteristics of patients and relatives.

## Be able to:

- use professional vocabulary in their activities;
- form the position of achievements of psychological and pedagogical science and best practices to study the team and individual characteristics
- use the information obtained in the construction and planning of activities.
- carry out age-appropriate interaction of subjects of the educational process;
- teach sanitary and hygienic standards and introduce them with the regime of medical and preventive organizations.
- Be able to give a psychological characterization of the individual (his temperament and abilities),
- Interpret own state, and master the simplest methods of mental self-regulation

## Master:

- methods of research of groups,
- structure and dynamic processes in a group,
- communication skills,
- experience of practical use of acquired knowledge in the conditions of future professional activity;
- ways of cooperation with social organizations.

## B. 3. 19 Organization of management of nursing services

Labor intensity/complexity 10,4 credits

**Lecture 54 hours** 

**Practical classes 138 hours** 

Self-study 120 hours

Type of control: credit test (IX, X semesters)

**Purposes:** The purpose of this course is to educate students of Nursing Faculty, education on general principles of management, marketing concepts in the nursing service, as well as introducing them with the principles of organization and optimization of the work of nurses of various levels working in medical institutions of various profiles.

#### Tasks:

The tasks of teaching this subject are aimed at developing students 'fundamental knowledge, skills and abilities in the field of organization and management of nursing services. Important tasks of teaching the discipline are introduction and training of students:

- with the organization and structure of nursing services, in patient and outpatient settings;
- with the principles of the chief nurse's work; conduct infection control;
- conduct recruitment and continuous training; maintain the organization's documentation;

- control the process of disinfection and sterilization in the organization; organize labor protection of nursing staff;
- manage the work of the nursing council of the organization and with the orders of the Ministry of Health of the Kyrgyz Republic.

Content: The program on the discipline "Organization and management of nursing services" is intended for training students of the Nursing Faculty during the 9th and 10th semesters in accordance with the requirements for the knowledge, skills and qualifications of the graduate contained in the State Educational Standard. The reform of the healthcare system and the adoption of the "Concept for the Development of nursing services for 2015-2016" provides for changes in the attitude of society towards nurses and an increase in the prestige of this profession. The effectiveness of medical institutions largely depends on the professional competence of chief nurses, their ability to coordinate the work of senior nurses in departments and services, as well as on the attitude of the health system management of all ranks to nursing. Skilful organization of the nursing process contributes to improving the quality of work of medical institutions of all types and achieving a high level of qualification for secondary medical personnel.

## As a result of mastering the discipline, the student shouldknow:

Know leadership styles and theories.

Principles of managing nursing services. Psychology of management.

Duties and rights of chief and senior nurses.

Production and educational work of the chief and senior nurses. Planning the work of the chief and senior nurse.

Principles of control over medical documentation. Methods of control of therapeutic nutrition.

About the components of high-quality medical care.

Organizational issues of the medical staff recruitment process .Principles of proper placement of personnel.

Staffing of middle and junior medical staff. Internal labor regulations.

Rights and obligations of the Chief occupational Health and Safety nurse.

Liability for violation of labor activity. Principles of remuneration for average medical staff.

Internal regulations and safety regulations of a stationary department. Issues of labor protection of nursing staff.

Functions of the senior nurse of the department. Rules for receiving and transferring duties.

Functional duties of ward, treatment and dressing nurses. General regulations on labor relations in healthcare institutions.

The concept of legal liability. The nature of possible offenses.

Civil and legal aspects of the nursing service. The law KR on public health protection in the Kyrgyz Republic.

Goals and objectives of support services. Goals and objectives of the Nursing Council.

General provisions on improving the qualification category. The concept of a certificate, certification and the procedure for its implementation. Procedure for obtaining a qualification category.

The concept of attestation and the composition of the attestation commission. Assessment of qualifications in accordance with the State Standards of the Kyrgyz Republic. Regulatory documents issued during certification.

Methods of preparing patients for various types of research. The concept of therapeutic and protective regime.

Types of motor activity modes.

Establishment and organization of outpatient health facilities. Establishment and organization of a stationary health care facility.

Factors and pathogens affecting the occurrence of nosocomial infectionMechanism of transmission of nosocomial infection

The concept of infectious diseases. Methods for identifying infectious patients. Early diagnosis of infectious diseasesPrevention of nosocomial infection

Orders on the sanitary and anti-epidemic regime. The concept of types and methods of disinfection.

Storage and preparation of disinfection solutions. Methods and types of sterilization.

The procedure for organizing the work of training rooms. Duties of the head of training and training rooms.

General provisions on the provision of medicines for medical institutions. Rules for writing prescriptions for лекарственные medicines.

Rules for storing and recording toxic and narcotic drugs in health facilities. Regulations on write -off and destruction of narcotic drugs.

The concept and types of therapeutic nutrition.

Accounting of linen in the central and linen warehouse in the branches. Accounting for new linen and delivery of linen from the warehouse.

Receiving, storing, and disposing of items belonging to the patient. The concept of health insurance and its types.

Basic principles and objectives of compulsory health insurance

## Be able to:

Organize work on early detection of infectious patients. Prevent nosocomial infection.

Organize activities for early detection of nosocomial infection. Apply orders on the sanitary and anti-epidemic regime.

Prepare disinfection solutions.

Make payments for junior and secondary medical staff. Perform sterilization.

Prepare patients for various types of research.

Prepare medical professionals for the upcoming certification. Evaluate the qualifications of secondary medical staff.

Perform functional duties as a ward nurse, treatment nurse, and dressing nurse.

Transmit and receive duty.

Follow the internal labor regulations. Write prescriptions for medicines.

Properly store and keep records of toxic and narcotic drugs in health facilities.

Be able to fill out documents for the purchase of medicines. Organize classes in the training and training room.

Monitor the operation of the food department of a stationary health facility. Make a report on the movement of patients.

#### Master:

Plan the work of the chief nurse, draw up regulations by day, hour, and week. Monitor medical records.

Distribute staff correctly.

Recruit and dismiss nursing staff in accordance with the K. R. Labor Code.

Work with medical records.

Organize and monitor support services. Determine the goals and objectives of the nursing council and monitor its work.

Organize provision of medical facilities with medicines and medical instruments.

## B. 3. 20 Higher school pedagogy

Labor intensity/complexity 3 credits

Lecture 20 hours

**Practical classes 32 hours** 

**Self-study 38 hours** 

**Type of control: exam (III semester)** 

**Purposes:** It is the acquisition by students of the Faculty of Higher Nursing Education of a medical university of the basics of pedagogy necessary in their future professional activities as a nurse, teacher, and manager. The course is also aimed at personal growth of students, development of their professional abilities.

## Tasks:

- -ensuring students 'systematic assimilation of the theoretical foundations of designing, organizing and implementing a modern educational process in a medical educational institution;
- -formation of skills in the selection and rational use of pedagogical technologies that are adequate to the goals and content of medical education;
- -formation of skills in preparing and conducting the main types of training sessions (lessons, lectures, seminars and practical classes, business games, etc.) in nursing disciplines;

- -introduction of students with the organization of activities and management of educational institutions;
- -students will master the main methods of organizing and conducting research on the problems of improving the quality of training specialists in a medical educational institution.

Content: The program covers students 'mastering the basics of pedagogy in order to form an adequate idea of human upbringing and development as the highest value, and on this basis, the development of a value attitude towards the patient, his relatives, his colleagues, and the personality of any other person. Creating a student's pedagogical, ethical, and deontological worldview as a foundation for studying the disciplines of the professional cycle, and for subsequent professional activity. The program contains a section on the formation of pedagogical skills in business and interpersonal communication, methods of effective partnership interaction with patients and colleagues, as well as methods of training and upbringing, as well as self-improvement skills.

## As a result of mastering the discipline, the student must:

#### know:

- the doctrine of a healthy lifestyle,
- -relationship "doctor-patient";
- -the outstanding figures of medicine and pharmacy,
- outstanding medical discoveries,
- the influence of humanistic ideas in medicine;
- -moral-ethical norms,
- rules and principles of professional medical conduct,
- -the rights of the patient and the doctor ethical foundations of modern medical legislation;
- -the main directions of psychology,
- -General and individual characteristics of the psyche of a teenager and an adult man, the psychology of personality and small groups

## Be able to:

- -evaluate and identify needs;
- -build and maintain working relationships with other members of the team;
- -evaluate and determine their needs to continue learning;
- -build and maintain working relationships with other members of the team
- -assess and determine their own needs for continuing education;
- -build and maintain working relationships with other team members;

Master:

-skills of presenting an independent point of view,

- analysis and logical thinking,

-public speech,

-moral and ethical argumentation,

-conducting discussions and round tables,

-the principles of medical deontology and medical ethics,

-the skills of informing patients and their relatives in accordance with the requirements of the

rules

-skills of informing patients and their relatives in accordance with the requirements of the

"informed consent» rules.

VARIABLE PART

V. 3. 1 "Public health and healthcare"

Labor intensity/complexity 4 credits

**Lecture 36 hours** 

Practical classes 36 hours

**Self-study 48 hours** 

Type of control: credit test (V, VI semesters)

Purposes: Contribute to the development of students 'skills in analyzing medical and statistical

indicators, draw conclusions and make managerial decisions when organizing effective activities

of health authorities and institutions in a market economy, the formation of various forms of

ownership and management in health care.

Tasks:

-analysis of the theoretical and methodological foundations of biostatistics, medical and statistical

research

-methods for calculating statistical indicators used in medicine analysis of public

health indicators

-analysis of performance indicators of government bodies and healthcare organizations

methods of graphic images of statistical quantities

-planning the activities of management bodies and healthcare organizations of the activities of

healthcare organizations and their structural divisions, including the organization of work with

personnel introduction of rational labor organization in the work of healthcare institutions

conducting and implementing scientific and practical research on publichealth,

-organization, management, health economics, sociology of medicine, independent work with educational, scientific, regulatory and reference literature.

**Content:** is aimed at the formation of students 'specialists a system of theoretical knowledge and practical skills on the most important topics and areas of public health and health management, sociology, medicine and Economics of health care, which represent the continuity of the formation of the medical-social and social-economic concepts theories and models in medicine and health. The patterns of production and research health and social and economic problems of health, scientific instruments, rules of evaluation of results of practical activities in the medical field.

## As a result of mastering the discipline, the student

## shouldknow:

- -fundamentals of preventive medicine, organization of preventive measures aimed at improving the health of the population;
- -human is organization interaction model;
- -theories of equality, possible reactions of a person to the state of inequality; role and personal aspects of interaction;
- -management and leadership skills;
- -characteristics of the communication process, types, content and feedback; ways to resolve conflict situations;
- -theory and practice of negotiations. Structure of the modern healthcare system of KR, activities of health system bodies and institutions ;
- -basic concepts, tasks and management methods;
- -Executive roles, management and leadership skills in the healthcare system. Tasks and management methods.
- Fundamentals of the legislation of the Kyrgyz Republic,
- -basic regulatory and technical documents on public health protection;
- -fundamentals of insurance medicine of KR,
- -fundamentals of organization of outpatient and inpatient care for children,
- -modern organizational forms of work at the primary level of health care, features of the organization and main направления activities of a pediatrician at the primary level,
- -maintaining standard documentation, carrying out an examination of labor needs
- -Executive roles, management and leadership skills;
- -a description of the communication process and feedback.
- -Fundamentals of organization of medical and statistical research;

- -methods of collecting, statistically processing and analyzing scientific and medical information:
- analyze and evaluate the quality of medical care, the state of population health,
- -the impact of lifestyle factors,
- -the environment, biological and organization of medical care on it
- -Use elements of a systematic approach working in a healthcare organization;
- use skills of communication with people and conceptual thinking;
- -form effective communication to improve interpersonal relationships inteams;
- -use elements of a systematic approach influencing the organization's culture;
- -be able to avoid conflict situations in teams.
- Analyze and evaluate the quality of medical care, the state of population health,
- -the impact of lifestyle factors, the environment, biological and organization of medical care;
- -be able to apply management decisions in conflict situations.
- -Apply basic controls, and use elements of a systematic approach working in a healthcare organization.
- -Maintain medical records of various types in medical organizations;
- -participate in the organization of preventive and sanitary-epidemiological care for the population
- -Apply managerial decisions working in healthcare organizations;
- -form effective communication to improve interpersonal relationships in teams;
- -Work with scientific and medical sources of information, plan, collect, process and analyze research results

#### master:

- -assessments of the health status of the population, various age and gender groups
- -methods of maintaining medical records in medical organizations, assessing the health status of the population of various age and gender groups
- -methods of management activity in the healthcare system
- -methods of maintaining medical accounting and reporting documentation in medical organizations;
- -assessments of the health status of the population of various age and gender groups.
- master technical techniques, communication skills with staff, ability to think conceptually;
- -Skills in organizing and conducting medical and statistical research, analyzing and processing its results; developing measures to improve the organization of medical care for the population

V. 3. 2 "Evidence-based medicine"

Labor intensity/complexity 1,33 credits

**Lecture 14 hours** 

Practical classes 14 hours

**Self-study 12 hours** 

**Type of control: credit test (X semester)** 

**Purposes:** Train students in an evidence-based approach to selecting effective and safe interventions

that have strong evidence for their usefulness.

**Tasks**: to develop the skills and abilities necessary for conducting a search for medical information

and its critical evaluation for making a scientifically based decision in the diagnosis, treatment,

prevention and prognosis of diseases. To form an understanding of the importance of clinical

epidemiology and biomedical statistics for interpreting the results of clinical trials.

Develop an understanding of the importance of clinical guidelines/protocols, standards and quality

indicators for evaluating the practical use of DM principles in practical healthcare.

To develop the skills and abilities necessary for applying the methods of evidence-based medicine

and clinical epidemiology in everyday practice when providing medical care to specific patients.

**Content:** in the course of training, students gain an understanding of the principles of evidence-

based medicine, levels of evidence, assessment of the strength of practical recommendations, as well

as master the skills and abilities to use descriptive and analytical methods of clinical epidemiology.

One of the important components of the discipline is training in critical reading of scientific

publications and search for clinically relevant information.

Requirements for improving the quality of medical care in Kyrgyz Republic, obliges educational

institutions in the field of medicine to introduce modern methods of evidence -based medicine in

educational programs.

As a result of mastering the discipline, the student must:

know:

methods for critical evaluation of medical publications;

gradation of evidence levels, their interpretation and use;

key components of a correctly formulated clinical question

medical sources of information, their types, inclusion and exclusion criteria;

#### be able to:

evaluate the quality of medical publications presented in medical sources;

formulate a clinical question;

analyze research results;

use educational, scientific, regulatory and reference literature;

search for medical information and determine the design of medical research;

#### Master:

methods of collecting social and hygienic information;

apply the components of the clinical question collecting medical information from reading and translating foreign (English-language) literature;

working on a personal computer.

## V. 3. 3 "Food hygiene"

Labor intensity/complexity 3 credits

Lecture 18 hours

**Practical classes 45 hours** 

Self-study 27 hours

Type of control: credit test (VI semester)

**Purposes:** teaching students theoretical issues of modern nutrition and dietetics, which are complemented by practical skills in developing the principles of rational and therapeutic nutrition.

## Tasks:

- training in methods for determining the energy expenditure of the body;
- training in methods for studying and evaluating the actual nutrition of the population;
- introduction to the principles of rational, curative and preventive nutrition;
- introduction to the importance of macronutrients (proteins, fats, carbohydrates) and micronutrients (vitamins and minerals) in maintaining and promoting public health; assessment of the energy value and nutrient composition of the diet based on determining the body 's energy needs and individual nutrients;
- assessment of compliance of the quality of the nutrient composition and energy value of the consumed food with the physiological needs of the body;
- determination of the level of provision of the body with basic nutrients, vitamins and minerals;
- identify the nature of food poisoning and organize measures to prevent it;
- quality assessment and hygienic examination of food products of animaland plant origin based on sanitary-hygienic and microbiological indicators;
- justification of hygienic principles of dietary nutrition application in medical and sanitary-resort institutions:
- proper storage, transportation and preparation of food and medical nutrition products.

**Content:** the course covers the sections of hygiene that study the theoretical aspects of rational and curative nutrition, methods of studying the actual nutrition and nutrition status of various groups of the adult working-age population; alimentary diseases and ways to prevent them; nutritional and biological value of food products; food poisoning; hygienic examination of food products.

The lecture course outlines the main problems of the selected topics of the subject, scientific achievements in the field of nutrition and dietetics. Practical classes are conducted in the form of laboratory studies, seminars using tables, methodological developments and manuals , and other types of technical support. Laboratory classes are conducted in the laboratories of the department by independent work under the guidance of a teacher with the registration of research results in protocols.

## As a result of mastering the discipline, the student should know:

hygienic basics of nutrition physiology and biochemistry;

fundamentals of rational nutrition for various age and professional groups of the population;

indicators of food and biological value of food products;

principles of food poisoning prevention, acute intestinal diseases and diseases of alimentary origin;

hygienic principle of food organization in medical institutions;

technology of cooking food in medical and preventive - institutions in order to preserve its biological and nutritional value;

hygiene requirements for hospital food stores and rules for filling out medical documentation; conditions for transportation, storage, and cold and hot processing of food products.

#### be able to:

develop measures to rationalize nutrition;

justify the nutritional composition of the diet and their energy value;

describe methods of studying actual nutrition, and assess the adequacy of nutrition to nutritional status;

make a menu lay out according to the principles of rational and therapeutic nutrition;

make hygienic recommendations on the adequacy of nutrition to the state of the body;

evaluate food products of animal and plant origin by organoleptic, physical-chemical and microbiological parameters; substantiate the general principles of building therapeutic nutrition;

give a description of the main treatment tables;

assess the degree of compliance of the hospital's food department with sanitary and hygienic requirements;

implement measures for the prevention of food poisoning, acute intestinal infectious diseases and diseases of alimentary origin.

#### Master:

create a chronogram of the day and calculate daily energy consumption;

definitions of the body 's energy requirement for nutrients;

definitions of the body's availability of vitamins;

carrying out C- vitaminization of ready meals and products, maintaining documentation in the food department;

determination of organoleptic indicators of food quality in the food department.

## V. 3. 4 "Biostatistics"

Labor intensity/complexity 1 credit

**Lecture 8 hours** 

Practical classes 12 hours

Self-study 10 hours

Type of control: credit test (IV semester)

**Goal of the discipline:** It is the study of basic concepts of biostatistics and the use of computer programs for statistical processing and data analysis.

Tasks: to master the methods of statistical processing of medical and biological information.

**Content:** the course program includes the main sections of mathematical statistics: introduction to mathematical statistics, general information about sampling method, correlation, regression and variance analysis of data, etc. Along with classical concepts, the program provides modern computer programs for statistical data analysis, which are necessary for future specialists in nursing.

## As a result of mastering the discipline, the student should know:

- content subject, objectives and goals of the course;
- fundamentals of applying mathematical and statistical methods in solving biomedical problems;
- processing results using statistical packages.

#### be able to:

- calculate the summary characteristics of the sample, apply methods of variance, correlation, and regression analysis using parametric and nonparametric criteria;
- build graphs, charts, and histograms; interpret the results obtained.

## master:

- technologies for processing medical and biological information using statistical packages;
- technologies for processing: tabular information (spreadsheets);
- technologies for working with databases.

V. 3. 5 "Nursing in family medicine" Labor intensity/complexity 22 credits Lecture 142 hours Practical classes 248 hours Self-study 288 hours Type of control: exam (VI semester)

**Purposes:** after mastering the program "Nursing in family Medicine", the graduate must acquire knowledge and skills sufficient independently organize the work of all departments of general family practice.

Students acquire the knowledge and skills required by nursing professionals with higher education to carry out effective treatment and prevention work and acquire theoretical knowledge and practical skills in providing nursing care to the population, taking into account age and gender.

## Tasks:

- To give students the opportunity to learn about etiopathogenesis, clinical manifestations of major diseases of internal organs
- Consolidate and improve the skills of examining a therapeutic patient. Form the principles of clinical thinking
- Teach the methods of differential diagnosis within the analyzed nosological forms and the basic principles of prevention and treatment of diseases of internal organs.
- Training of students in the basic duties of nursing specialists in the working environment of medical institutions
- Formation of students 'fundamental knowledge and skills in the field of family medicine
- Developing skills in patient examination, making a nursing diagnosis, and organizing nursing care
- Developing skills in providing nursing care in emergency situations
- Educating students on the principles of medical ethics and deontology

**Content:** Due to the urgency of the development of family medicine at the present time, it is necessary to develop an adequate curriculum for training future family nurses, so that their qualities and level of knowledge correspond to working in a team with a family doctor.

The content of this program examines the organization of work of a family nurse on an outpatient basis and when conducting patronage of patients at home with various diseases, regardless of gender and age.

## As a result of mastering the discipline, the student should know:

- the role and place of emergency medical care in the organization of qualified medical care for the population.

- Types of medical care.
- the concept of prevention, types of prevention. Measures, taken among the population to prevent morbidity.
- Health promotion activities.
- General laws of the origin and development of life. Cell structure and function
- Factors affecting the health of the population.
- Norms of ethics and deontology in nursing practice. Communication skills of a family nurse with patients, depending on gender and age.
- The concept of the nursing process.
- Stages of the nursing process. Interpretation of patient examination results. Setting up and formulating the nursing process. Regulatory documentation and filling techniques that govern the work of a family nurse
- Definition of asepsis and antiseptics.
- The concept of disinfection and sterilization. Methods of disinfection and sterilization.
- Standards for performing various manipulations in the care of patients in outpatient settings with various pathologies, as well as for seriously ill patients at home. Principles of providing first aid in emergencies.
- The nature of changes in the patient's quality of life in various diseases. Features of the organization of nursing care in various severe conditions.
- Evaluation of the effectiveness of nursing care for seriously ill patients at home by medical staff and their relatives.
- Classification of the most common infectious and non-communicable diseases. The concept of
  prevention. Types of prevention. The role of the family nurse in the prevention of infectious
  diseases. Features of the course of infectious diseases.
- Norms of human physiological parameters (head and chest circumference, body mass index, blood pressure, pulse rate, respiratory rate, body temperature).
- Periods of fever, their clinical manifestations, principles of care for it.
- Causes and main stages of development of pathological conditions that arise as a result of acute diseases, traumatic lesions, poisoning for the provision of reasonable and adequate pre-medical care.

#### be able to:

- Differentiate the population's problems by social, clinical, and ethical significance.
- Conduct sanitary education work among the population. Promote a healthy lifestyle. Identify risk groups for certain groups of diseases.
- Clearly, competently, and accurately carry out nursing practice. Observe ethics when working with the patient and their relatives. And when communicating with colleagues.
- Collect data about the patient, conduct an examination and examination of the patient, make a nursing diagnosis, plan a complex of nursing activities for the organization of patient care.
- Perform a physical examination of the patient from head to toe. Perform palpation, percussion, and auscultation of organs and systems.
- Carry out processing of medical instruments taking into account the regulatory documentation on the sanitary and epidemiological regime in medical institutions. Carry out treatment of premises in medical institutions. Evaluate the patient's condition. Perform a measurement of blood pressure, pulse, body temperature, etc. Give different types of injections. Provide assistance in various emergency situations.
- Provide nursing care for the seriously ill at home. Train patients 'relatives to take care of them.
- Diagnose infectious diseases. Evaluate the patient's condition in case of an infectious disease. Organize the care of an infectious patient. Carry out prevention of complications. Conduct sanitary education work among the population.
- based on simple clinical signs, assess the general condition of a suddenly ill or injured person (state of consciousness, cardiovascular, respiratory and urinary systems, pulse, blood pressure, nature, frequency and type of breathing).
- Provide nursing care for fever.

## Master:

- Communication skills with an elderly patient in emergency situations.
- Communication skills in dealing with patients of any age category and gender. Public speaking skills.
- Leadership and pedagogical skills.
- Standards of ethics and deontology in patient care in outpatient settings and at home.
- Communication skills with the patient
- age-appropriate examination skills of the patient

- skills in maintaining the sanitary and epidemiological regime of a medical institution
- Age-appropriate communication skills with the patient. The technique of examining the patient.
- Techniques for performing various manipulations.
- Skills in organizing care for the seriously ill. Skills in maintaining the patient's personal hygiene. Skills in catering for seriously ill patients.
- Communication skills with patients. Skills of examination of the patient and diagnosis of infectious diseases.
- Skills in promoting a healthy lifestyle. Skills in preventing infectious diseases.
- Using the technique of anthropometry (measurement of height, weight), measurement of physiological parameters, etc.
- Indicators (measure blood pressure, PE, BPD, body temperature)

## V. 3. 6 "Leadership and management"

Labor intensity/complexity 4 credits Lecture 30 hours Practical classes 45 hours Self-study 45 hours

**Type of control: exam (VIII semester)** 

**Purposes:** to lay the foundations of students 'knowledge on management and leadership, which they will be able to apply in the further process of practical activity as administrators and managers, as well as to give them an idea of the methods of personnel selection, decision -making in various situations and conflicts.

## Tasks:

- Study of the main elements of management in nursing.
- Increase the level of organization planning and quality control of nursing care. Formation of general strategic thinking and specific managerial skills of the manager that can significantly increase the productivity of employees and the efficiency of the organization as a whole.

**Content:** program of the discipline "Leadership and Management in Nursing" is intended for training students of the Faculty of "Higher Nursing Education" in accordance with the requirements for knowledge, skills and qualifications of the graduate contained in the State Educational Standard.

This discipline is one of the main ones for graduates HNE as future managers of nursing services at various levels. The program contains sufficient information about the concepts, principles and functions of management and how to apply leadership principles in nursing.

# As a result of mastering the discipline, the student shouldknow:

- The concept and definition of the terms "leadership and management"

- Management functions in the work of medical and preventive institutions, in working withthe population;
- Organizational structure of the healthcare system;
- Organizational changes, changes, driving forces;
- Methods of controlling the activities of subordinates;
- Principles of leadership in nursing;
- Theory of health personnel development;
- Principles of managing actions in extreme situations;
- Fundamentals of resource management;
- Principles of management of medical educational institutions.

#### Be able to:

- Demonstrate effective communication skills with medical staff, patients, and visitors;
- Assess the needs and challenges of hospitals;
- Assess staff abilities and assign responsibilities;
- Plan the work of the nursing service with setting tasks and priorities;
- Coordinate staff activities with other members of the medical team to meet patient needs and improve nursing care;
- Develop and apply methods for evaluating staff performance in their job responsibilities;
- Draw up an organizational chart of medical institutions;
- Explain administrative responsibilities to employees of nursing training institutions.

#### **Master:**

- Skills of independent work with information (educational, reference, regulatory, scientific):
- Methods of effective management of nursing staff;
- Skills in planning, organizing, and controlling nursing care;
- Methods of research activity in management.

## V. 3. 7 "Healthy child of pre-preschool and preschool age"

Labor intensity/complexity 1 credit Lecture 8 hours Practical classes 10 hours Self-study 12 hours

**Type of control: credit test (VIII semester)** 

**Purposes:** The goal of training is to get a mental picture of what a person should eventually become. This goal should correspond to the idea of society about the ideal of the individual, express the requirements of society to the person. In relation to preschool children, the goal of education is formulated as a versatile development and upbringing of the child in the spirit of harmony of the three principles:

- -physical development and upbringing;
- spiritual and personal development;

The goal of education formulated by the state is objective, because it reflects the values accepted in society and is aimed at shaping the individual based on the needs of the state. The subjective nature of the goal of education is a goal that each family has defined for itself. Such a goal may coincide with a real objective goal, or it may even come into conflict with it.

#### Tasks:

- Creating conditions for an emotionally joyfullife of the child, a comfortable state; forming the desire to be healthyand strong;
- Tasks of intellectual and cognitive development
- Early development of inclinations;
- Expanding the horizons of children;
- Development of cognitive interests and needs, skills and abilities of mental activity
- Development of sensory culture;
- Speech development.

**Content:** This curriculum addresses issues of healthy motherhood and fatherhood, preschool child health, and contains information about the physical and neuropsychological development of a healthy preschool child, taking into account age trends and gender, while fully considering all aspects of the child's life in the context of the family and society.

# As a result of mastering the discipline, the student shouldknow:

- Main categories of the concept of psychological science;
- Functions of the psyche, psychological characteristics of people of different ages and genders, social-psychological characteristics of groups of people,
- use systematic methodological, theoretical and practical knowledge in solving professional problems

- take into account the mental and age characteristics of patients and relatives.

#### be able to:

- use professional vocabulary in their activities;
- from the point of view of achieving psychological and pedagogical science and best practices,
- study the team and individual characteristics and use the information obtained in the construction and planning of activities.
- carry out age-appropriate interaction of subjects of the educational process;
- teach sanitary and hygienic standards and introduce them with the regime of medical and preventive organizations.
- be able to give a psychological characterization of the individual (his temperament and abilities), interpret his own state, and master the simplest methods of mental self-regulation

#### master:

- methods of research of groups, structure and dynamic processes in the group, communication skills and experience of practical use of acquired knowledge in the conditions of future professional activity.
- ways of cooperation with social organizations.

# V. 3. 8 "Management psychology"

Labor intensity/complexity 3 credits Lecture 16 hours Practical classes 38 hours Self-study 36 hours

**Type of control: credit test (X semester)** 

**Purposes:** introduction with the most relevant management problems, especially those that are important for practical application. Special emphasis is placed on developing practical skills, so classes are held in the form of business games and trainings.

### Tasks:

- Introduction to the methods of studying important social-economic issues
- Psychological characteristics of the individual and team
- Analysis of psychological properties and conditions, characteristics of mental processes, various types of activities of individuals and groups
- Prevention of professional risks in management activities
- Study of the basics of developing motivational systems of the organization, psychological components of corporate culture.

- Study of the basic principles of the concept of psychological support of an employee in his professional activity.

**Content:** training course "Management Psychology" is aimed at deepening and expanding the previously obtained psychological knowledge and ideas about the psychological features of human behavior in the organization, about the regularities of the functioning of management systems. Its main task is to form a system of knowledge about the main methodological and theoretical aspects of management psychology as a branch of social psychology. In the process of studying theoretical issues, this discipline should show the importance of a person psychological characteristics as the main link in managerial activity.

# As a result of mastering the discipline, the student must:

#### know:

- Basic concepts of managerial activity of a nursing manager.
- Leadership styles
- Can distinguish between the concepts of leadership and the main psychological features of the activities of individuals and groups that are objects of management;
- Use systematic methodological, theoretical and practical knowledge in solving professional problems
- Take into account the mental, age characteristics of patients and relatives, and can manage them.

# be able to:

- use professional vocabulary in their activities; from the point of view of achieving psychological and pedagogical science and best practices,
- study the team and individual characteristics and use the information obtained in the construction and planning of activities.
- carry out age-appropriate interaction of subjects of the educational process;
- teach them sanitary and hygienic standards and introduce them to the treatment and prevention organization's regime.
- Be able to give a psychological characterization of the individual (his temperament and abilities), interpret his own state, and master the simplest methods of mental self regulation

#### Master:

- experience in the practical use of acquired knowledge in the context of future professional activity;
- ability to develop training programs and methodological support for management disciplines, as well as apply modern methods and techniques in the process of teaching them

- ways of cooperation with social organizations

V. 3. 9 "Health assessment" Labor intensity/complexity 8 credits Lecture 62 hours Practical classes 93 hours Self-study 85 hours

Type of control: exam (VI semester)

**Purposes:** students 'acquisition of theoretical, methodological, and practical skills required by nursing professionals.

#### Tasks:

- formation of students ' ideas about health and disease. Developing students ' basic deontology skills
- Acquisition of skills of questioning, examination, palpation, percussion, auscultation of patients byorgans and systems.

**Content:** The program of the discipline "Health assessment" is designed to train students of the Faculty of "Higher Nursing Education" in accordance with the requirements for the knowledge, skills and qualifications of the graduate contained in the State Educational Standard.

The study of this discipline is of great importance for nurses with higher education, as the health of the working-age population is of great importance forthe state.

# As a result of mastering the discipline, the student shouldknow:

- basic principles of ethics and deontology;
- the essence of the concepts of "health", "disease", "etiology", "pathogenesis";
- diagnostic methods;
- survey rules;
- sequence of general examination of the patient;
- rules of examination, palpation, percussion, auscultation.
- norms of human physiological parameters (head and chest circumference, body mass index, blood pressure, pulse rate, respiratory rate, body temperature).
- methods of questioning, examination, palpation, percussion, and auscultation of the respiratory, circulatory, digestive, urinary, and musculoskeletal systems.
- the main complaints in diseases of the body's systems (respiratory, cardiovascular, digestive, urinary, endocrine, musculoskeletal).

#### be able to:

- apply the principles of ethics and deontology communicating with patients;

- conduct a survey of the patient and / or his relatives;
- conduct a physical examination of the patient (examination, palpation, auscultation, blood pressure measurement, determination of arterial pulse properties, etc.);
- collect patient data; analyze the data and evaluate the patient's condition;
- perform a nursing examination (anthropometry, thermometry, bloodpressure, respiratory rate, pulse rate).
- conduct a survey, examination of the patient; palpation, percussion, auscultation of all organs and systems.
- conduct an examination of the patient using palpation, percussion, and auscultation techniques.

#### Master:

- techniques of palpation, percussion, auscultation of organs and systems.
- the technique of anthropometry (measurement of height, weight), measurement of physiological parameters (blood pressure, PE, BPD, body temperature).
- techniques of palpation, percussion, auscultation of the respiratory, circulatory, digestive, urinary, musculoskeletal and endocrine systems.
- techniques of palpation of the chest (vocal tremor, determination of apical shock);
- methods of percussion, auscultation of organs and systems.

# V. 3. 10 "Marketing of medical services"

Labor intensity/complexity 1,5 credits Lecture 10 hours Practical classes 21 hours Self-study 14 hours

**Type of control: credit test (IX semester)** 

**Purposes:** Training of a specialist with modern economic thinking, including those who know marketing methods in healthcare. Formation of a high economic culture among students. Development of entrepreneurial and managerial skills in future specialists and the ability to solve economic problems in the field of professional nursing. Striving to constantlyimprove the quality of medical and preventive work. Be able to analyze marketing activities at the level of a specific medical organization; acquire the ability to use information obtained as a result of marketing research c in order to effectively organize the treatment process.

#### Tasks:

- formation of competence in the basic categories of marketing in healthcare;
- formation of behavior skills in a market economy and competition;

- mastering the skills of making economic decisions in specific working conditions of medical institutions in order to improve the quality of medical care and the economic effect of medical and preventive measures;
- analyze the marketing environment at the level of a specific medical organization;
- acquire the ability to use information obtained as a result of marketing research in order to effectively organize the treatment process.

**Content:** marketing is a type of human activity aimed at meeting the needs of the population through market relations. Applied to the healthcare sector The American Medical Association has defined marketing as a complex process of economic planning and service management in the healthcare system. The scope of marketing is wide. It is associated with the study and prediction of the consumer (patient), product promotion in the market, i.e. marketing research, conducting various surveys, analyzing the data obtained and presenting the results, advertising and public relations issues, as well as constantly attracting patients.

# As a result of mastering the discipline, the student shouldknow:

- Basic concepts of marketing, its role and features in healthcare;
- Main stages of conducting market research;
- The essence and content of advertising;
- Forms of advertising activity.
- Means of transmitting an advertising message.
- The conceptof advertising effectiveness;
- Segmentation of the medical services market;
- Forms and tools of marketing communication.

### be able to:

- Conduct situational and comprehensive marketing analysis in healthcare;
- Create a marketing plan for a medical organization;
- Predict the needs of medical products.
- Develop a marketing research plan;
- Conduct analysis and evaluation of market research results;
- Develop marketing strategies based on the results of situational analysis and goals of the medical organization;
- Analyze and identify specific features of using the main advertising channels.

- Evaluate the advantages and disadvantages of advertising communication tools.
- Determine the costs of carrying out preventive and health-improving activities in a medical organization;
- implement marketing activities.

#### Master:

- Skills of analytical analysis of marketing activities of a medical organization;
- Skills of positioning the brand of a medical organization;
- Skills in using modern tools used in conducting marketing activities, obtaining and analyzing the necessary information;
- Skills in developing a marketing package;
- Skills in assessing the competitiveness of medical services;
- Skills in organizing, monitoring, and evaluating results.

# V. 3. 11 "Health economics"

Labor intensity/complexity 1,5 credits Lecture 10 hours Practical classes 21 hours

Self-study 14 hours

**Type of control: credit test (IX semester)** 

**Purposes:** Students 'acquisition of a complex of modern and scientific and practical knowledge on healthcare economics. Mechanisms of economic activities of medical institutions, social-economic functions of the state. The ability to apply obtained knowledge in the field of Economics of health to determine the economic efficiency of medical institutions. To analyze the economic activities of medical institutions in terms of the formation of the diverse forms of ownership and management with the possibility of evaluation of public and national importance of health services. Search for rational ways in the use of clinical resources at the organization of the nursing activities in the conditions of market activity.

# Tasks:

- analysis of the efficiency of using material, labor and financial resources;
- determining the costs of various types of medical care;
- evaluation of the effectiveness of medical and preventive care;
- identify health care funding sources;
- analyze the problems of innovative processes in healthcare;
- determining the impact of population health indicators on national income;

- formation of skills in the use of economic knowledge in the implementation of effective professional activities.

**Content:** Discipline program "Medical and social patronage" is intended for teaching students of the faculty "Higher nursing education" in accordance with the requirements for the knowledge, skills and qualifications of the graduate contained in the State Educational Standard. The discipline "Medical and social patronage" is one of the mandatory ones in the training program in the specialty "Nursing". Knowledge of the basics of medical and social patronage will orient them as much as possible in their future professional activities in the field of this problem.

# As a result of mastering the discipline, the student should know:

- Fundamentals of preventive medicine,
- organization of preventive measures aimed at improving the health of the population.
- fundamentals of economics and financing of healthcare and the activities of medical organizations;
- laws of the market for medical goods and services;
- types of costs and prices for paid medical services;
- economic properties of medical services.
- Economic performance indicators of healthcare institutions;
- the essence of the economic activity of a healthcare organization;
- The main regulatory and legal documents in the sphere of activity of economic agents of the healthcare system;
- methods for assessing economic risk and forms of insurance against it.
- Fundamentals of organization of medical and statistical research;
- methods of collection, statistical processing and analysis of scientific and medical information

#### be able to:

- To analyze and evaluate the quality of care,
- health status of the population,
- the influence of lifestyle factors,
- environmental, biological andorganization of medical care to assess the economic efficiency of medical- preventive measures;
- analyze the specific economic characteristics of health services, to identify and assess the factors influencing the magnitude of demand and supply,
- to be able to calculate economic losses due to morbidity, disability, and mortality in the working age.
- Organize the work of secondary medical personnel in accordance with social responsibility and economic feasibility in the activities of a healthcare organization;
- calculate the economic efficiency of costs in carrying out various medical and health-improving, preventive measures;
- provide information support for the activities of economic agents in the healthcare market;
- identify factors that affect the formation of demand for health care products.
- Proposals to work with scientific and medical sources of information, plan, collect, process and analyze research results

#### master:

- Assessments of the health status of the population, various age and gender groups
- methodology for calculating and evaluating indicators of medical, social and economic efficiency of healthcare;
- methodology for calculating the price of medical services;

- methodology for calculating and evaluating the main indicators of economic activity of medical organizations,
- methods for determining the cost, costs and total costs.
- Possess modern methods of diagnostics, analysis and solution of socio- economic problems, as well as methods of decision -making and their implementation in practice;
- assess the state of the health care economy.
- Skills in organizing and conducting medical and statistical research, analyzing and processing its results;
- developing measures to improve the organization of medical care for the population.

# V. 3. 12 "Medical and social patronage"

Labor intensity/complexity 2,5 credits Lecture 16 hours Practical classes 30 hours Self-study 29 hours

**Type of control: credit test (X semester)** 

**Purposes:** Education and training of students in the ability to use the basic provisions of medical knowledge and implement solutions to numerous problems of a medical and social nature in practical activities.

#### Tasks:

- study of medical and social problems of patients medical, psychological, socio-hygienic, social.
- Formation of knowledge and practical skills in providing medical and social care to certain categories of patients.
- Study and organization of medical and social patronage, medical and social work for urban and rural populations.

**Content:** program of the discipline "Medical and social Patronage" is intended for training students of the Faculty of "Higher Nursing Education" in accordance with the requirements for the knowledge, skills and qualifications of the graduate contained in the State Educational Standard. The discipline "Medical and social patronage" is one of the mandatory ones in the training

program in the specialty "Nursing". Knowledge of the basics of medical and social patronage will orient them as much as possible in their future professional activities in the field of this problem.

# As a result of mastering the discipline, the student

#### should know:

- the concept and tasks of medical and social work, medical and social care for certaincategories of patients.
- basic concepts of social medicine. Goals and objectives.
- Demographic indicators of the population: population, statistics, birth rate andmortality.
- The concept of migration.
- healthy lifestyle components.
- Basic methods of preventive care for the population.
- the concept of morbidity.
- The structure. Age and sex characteristics of morbidity.
- Dynamics of morbidity.

- STDs and AIDS. Prevalence and dynamics.
- main types of health facilities, structure.
- moral and legal responsibility of medical personnel.
- causes and types of injuries.
- Occupational hazards and diseases.
- features of functioning of medical institutions in rural areas.
- problems of women 's and children's health protection.
- types of obstetric and gynecological care.
- the concept of disability.
- Disability groups.
- principles of compulsory health insurance.
- Types of pensions and benefits.

### be able to:

- identify medical and social problems of the patient and outline ways to solve them.
- Form action systems for their solution and implement the process of medicaland social assistance.
- carry out medical and social patronage.
- carry out preventive measures to prevent diseases.
- promote a healthy lifestyle.
- inform the public about STDs and AIDS, and measures to protect against them.
- list methods of contraception.
- conduct prenatal and postnatal care
- define the concept of disability and list the main disability groups.
- List the functional responsibilities of medical personnel in the hospital and polyclinic.
- give the concept of compulsory health insurance.
- List the types of pensions and benefits.

# master:

- Provide care for patients with various diseases (physical, psychological, social, etc.);
- organize rehabilitation and adaptation of patients;
- informing patients of medical and social care together with health authorities about the formation of healthy lifestyle.

# V. 3. 13 "General hygiene"

Labor intensity/complexity 2 credits Lecture 36 hours

**Practical classes 48 hours** 

Self-study 36 hours

Type of control: credit test (IV semester)

**Purposes:** "General hygiene" is acquired by students of the faculty "HNE" of scientific knowledge about the influence of the external environment on the body to preserve and promote human health and prevent diseases. Provide students with information for mastering the methodology of preventive medicine, acquiring hygienic knowledge and skills to assess the impact of environmental factors on human and population health.

#### Tasks:

- analysis of the health status of individuals and population groups and justification of adequate

preventive measures;

- organization and implementation of preventive measures among children and adults, assessment of their quality and effectiveness;
- formation of motivation to preserve and promote health in the adult population, children and their relatives;
- implementation of preventive and anti-epidemic measures aimed at preventing the occurrence of infectious diseases;
- carrying out sanitary and educational work among the entire population and medical personnel in order to form a healthy lifestyle.

# As a result of mastering the discipline, the student shouldknow:

- theoretical and practical aspects of the problems of preserving and promoting public health, using the favorable influence of environmental factors on the course and outcome of the disease, restoring health and efficiency;
- physiological foundations of a healthy lifestyle and the concept of risk factors as the basis of modern concepts of disease prevention;
- laws of rational nutrition, methods of assessment of actual nutrition and nutrition status,
- fundamentals of therapeutic nutrition in healthcare organizations;
- hygienic requirements for the regime in healthcare organizations,
- ways to prevent nosocomial infection;
- Social role of physical culture in personal development and preparation for professional activity.
- Principles of a healthy lifestyle.
- Use SanPiN 2.3.2.1078-01.
- Hygienic requirements for food safety and nutritional value.
- Basics of rational human nutrition, about food poisoning and its prevention, the nutritional and biological value of animal and plant products, vitamins, and the prevention of beriberi.
- Physical properties of air: air temperature and its influence on the processes of thermoregulation of the body;
- influence of humidity and air velocity on the human body;
- prevention of diseases associated with overheating and cooling of the body.
- Caisson and mountain sickness and measures for their prevention.
- Weather and climate.
- Influenceof climatic conditions on human health.
- Meteotropic reactions and their prevention.
- Nosocomial infections, classification. Sources of nosocomial infections.
- Sanitary and epidemiological requirements for the operation of surgical departments, sanitary and hygienic regime in the wards of patients with anaerobic infection.
- Regulatory requirements for various health care units, requirements for the sanitary and hygienic regime of units.
- The concept of rational, balanced, adequate nutrition.
- Principles and types of hardening.
- Air, water, and sun hardening.
- Psychohygienic and psychoprophylaxis.
- Principles of hardening and types of hardening: air, water and sun hardening.
- Oral hygiene. Skin hygiene.
- Hygienic significance of clothing and classification of clothing.
- Psychohygienic and psychoprophylaxis.

- Physiological significance of nutrition. The concept of rational, balanced, adequate nutrition.
- The concept of vitamins, classification. Vitamin deficiency.
- Ionizing radiation and its types.
- Quantitative characteristics of ionizing radiation.
- Types of radiation exposure.
- Effects of ionizing radiation on tissues.
- Deterministic and stochastic effects.
- Measures of protection against external radiation.

#### be able to:

- conduct hygienic training and education, develop a healthy lifestyle;
- perform an assessment of the actual nutrition and nutrition status,
- drawing up and analyzing the menu layout of products;
- Understand the issues of physical culture used for prevention and treatment.
- Conduct sanitary expertise of products of animal and plant origin.
- Develop recommendations for the prevention of vitamin deficiency.
- Use devices to determine the parameters of the microclimate in order to assess the microclimate of the premises.
- Monitor the state of the sanitary and anti- epidemic regime of health care facilities.
- Analyze indicators of the microclimate, air environment, and illumination of health facilities.
- Provide a safe environment for patients in he hospital infectious safety, carry out safe disposal medical waste;
- Use hygienic aspects of rationing and vitamin use.
- Prevention of hypovitaminosis.
- Principles of rational nutrition. Use the principles and types of hardening.
- Develop recommendations for the prevention of vitamin deficiency.
- Make recommendations on radiation protection.

### Master:

- methods for assessing the health status of the population of various age, gender and social groups;
- work with patients to promote health, prevent diseases and promote a healthy lifestyle, and train the patient's family members.
- The main methods of studying metabolism, energy and hygienic assessment of nutritionby menu layout.
- Conduct an investigation of food poisoning in order to identify the etiological factor.
- Organization of preventive measures for food poisoning.
- Methods of hygienic assessment of the indoor microclimate in order to determine the impact on the human body.
- Methods of carrying out measures for the prevention of nosocomial infections in healthcare facilities.
- Methods of patient nutrition management.
- Methods for assessing the adequacy of nutrition.
- Methods of hygienic assessment of nutrition adequacy.
- Methods of sanitary examination of food products.
- Assess the radiation situation and make recommendations on radiation protection.

# V. 3. 14 "Epidemiology with the basics of epid.analysis"

Labor intensity/complexity 4 credits

**Lecture 36 hours** 

**Practical classes 36 hours** 

**Self-study 48 hours** 

Type of control: credit test (VI semester)

**Purposes:** Mastering theoretical and practical knowledge on the peculiarities of epidemiology of infectious and non-communicable diseases, organization and implementation of anti-epidemic measures aimed at preventing and reducing the incidence of diseases in the population.

#### Tasks

- to provide theoretical knowledge on the epidemiology of infectious and non-communicable diseases;
- develop practical skills in conducting epidemiological investigations, anti-epidemic and preventive measures
- develop independent epidemiological thinking aimed at effective use of the acquired knowledge in the organization of epidemiological surveillance develop students competencies that establish causal relationships andidentify risk factors;
- develop competencies for self-assessment of the results of their activities;
- prepare graduates for practical performance of functional duties in special health care units and institutions of the civil defense medical service and the disaster medicine service;
- to train students in the implementation of supervision functions for health care facilities to ensure sanitary and epidemiological well-being

Content: The program takes into account the provisions contained in Constitutions Kyrgyz Republic Law on the Protection of Public health, Sanitary and Epidemiological welfare of the Population of Kyrgyz Republic, as well as other government policy documents, orders and instructions Ministry of Health, Ministry of Education and Science on strengthening the preventive orientation of public education and the resulting requirements for the training of medical personnel. Discipline "Epidemiology" is fundamental for obtaining the qualification "specialist" in the specialty "Higher nursing education". Feature of the discipline "Epidemiology" is the integration of knowledge, skills and abilities acquired in the study of other disciplines, in the formation of professional competencies of the discipline.

# As a result of mastering the discipline, the student shouldknow:

- Measures and methods for safe practice of medical manipulation and prevention of the spread of hemo contact infection
- Methods of asepsis and antiseptics properties of various disinfectants and the regime of antiepidemic measures in institutions of various profiles
- The structure of preventive and anti-epidemic measures in health care facilities,
- the structure of the anti-epidemic system and the place of health care facilities in this system
- actual problems of infectious and parasitic morbidity and non-infectious pathology.
- Types of preventive vaccinations and the calendar of mandatory preventive vaccinations,
- methods of obtaining and storing,

- characteristics of vaccines,
- preparations for passive immunization and interferons and bacteriophages

# be able to:

- Be able to organize and conduct all medical procedures based on the principles of infection control
- Organize an anti-epidemic regime in medical institutions of various types with determining the degree of danger of the procedures performed
- Organize epidemiological surveillance, draw conclusions from the assessment of the epidemicsituation,
- make management decisions,
- justify the interaction of the institutionand division of the organizational structure of the antiepidemic system
- Analyze and evaluate social medical and economic damages caused by
- Infectious, parasitic and non-infectious pathologies.
- Determine the suitability of immune-biological preparations for use,
- be able to determine the correct storage of immune-biological preparations, distinguish between true and false contraindications to the use of bacterial preparations

#### Master:

- Methods of monitoring and evaluating the safety of conducting medical procedures in medical institutions of various profiles
- Skills of quality control of aseptics and antiseptics and implementation of an anti-epidemic regime in medical institutions of various profiles
- Master the assessment of the potential and actual effectiveness of preventive measures.
- Anti-epidemic measures.
- Master the techniques of morbidity analysis and determination of medical social and economic damage caused by infectious parasitic diseases.
- Technique of conducting immunization, indications for the use of immune-biological drugs, and prevent post-vaccination complications.