FEDERAL STATE AUTONOMOUS EDUCATIONAL INSTITUTION OF HIGHER EDUCATION "PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA"

Institute of Medicine

educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course title	**Allergology**
Course workload	Credits and academic hours **2 ZE (72 hours)**
Summary of the discipline	
Brief content of sections (topics) of the discipline:	**Brief content of sections (topics) of the discipline:**
General allergology	General allergology Organizational principles of care for patients with allergic diseases. Basic provisions for organizing the allergy service of the Russian Federation.
	Specific diagnosis of allergic diseases. Allergological history. Skin tests with allergens, provocative allergy tests. Basic laboratory methods of specific diagnostics in practical allergology. Specific in vitro diagnosis of allergic diseases. Molecular allergological methods for specific diagnosis of allergies.
	The most important allergens and their classification. Classifications and pathogenesis of allergic reactions. The role of IgE in the development and course of immediate allergic reactions. Early and late phases of allergic reactions, the role of mediators of the immune response (cytokines, chemokines, growth factors and arachidonic acid metabolites).
Particular allergology	Allergic skin diseases. Atopic dermatitis, development mechanisms, etiology, diagnosis and treatment methods.
	Bronchial asthma, classification, diagnosis, staged methods of therapy.
	Allergic rhinitis and rhinoconjunctivitis, etiological factors, relationship with bronchial asthma. The role of various histamine receptors in the pathogenesis of rhinitis and rhinoconjunctivitis. Modern methods of therapy.
	Hay fever. Causal factors. Allergen-specific and non-specific methods of therapy.
	Urticaria and angioedema. Features of the clinical picture. Interrelation of pathologies. Modern approaches to therapy.
	Drug allergy. Main drug allergens. Diagnosis of drug allergies, main clinical manifestations.
	Food allergies. Food allergens. Age-related features of the development and course of food allergies. Prevention and therapy.
	Pseudoallergic reactions. The main factors in the development of pseudoallergic reactions. Distinctive features of pseudoallergy and true allergy.

	Anaphylactic shock. Causal factors of occurrence. Treatment tactics for anaphylactic shock.

Developers:
Professor of the Department of dermatovenerology, allergology and cosmetology

R.A. Khanferyan

Head of Department dermatovenerology, allergology and cosmetology

O.V. Zhukova

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RUDN University

Institute of Medicine

educational division -faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Name of the discipline	**Anatomy**
Scope of discipline	**12 credits (432 hours)**
COURSE DESCRIPTION OF THE DISCIPLINE	
Modules	**Units/Themes**
1. Somatology	**Topic 1.1.** Bones and joints of trunk
	Topic 1.2. Bones and joints of the limbs
	Topic 1.3. Bones and joints of the head
	Topic 1.4. Muscular system
2. Splanchnology	**Topic 2.1.** Digestive system
	Topic 2.2. Respiratory system
	Topic 2.3. Urinary and Reproductive systems
	Topic 2.4. Lymphoid system
	Topic 2.5. Endocrine glands
3. Cardiovascular system	**Topic 3.1.** Cardiovascular system
	Topic 3.2. Lymphatic drainage pathways
4. Nervous system and sense organs	**Topic 4.1.** Central nervous system
	Topic 4.2. Cranial nerves
	Topic 4.3. Spinal nerves and their derivatives
	Topic 4.4. The autonomic nervous system
	Topic 4.5. Sensory organs

Developers:
Professor of the Department of Human Anatomy V.I. Kozlov

Associate Professor of the Department of Human Anatomy
T.V. Kokoreva

Head of the Department of Human Anatomy: V. I. Kozlov

Head of Higher Educational Programme:

Professor of the Department of Nursing I.V. Radysh

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educational division -faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2024

Course Title	Anesthesiology, Resuscitation, Intensive Care
Course Workload	Credits and academic hours - **3 credits (108 hours)**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Anesthesiology	Basics and clinical aspects of modern anesthesiology.
Resuscitation	Fundamentals of modern resuscitation.
Intensive therapy	Diagnostics, Evaluation and treatments of critical illnesses.

Developers:

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Medical Institute

educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 GENERAL MEDICINE

field of studies / speciality code and title

Course Title	**Autopsy course**
Course Workload	**1/36**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 Organization of work of pathological anatomical service	**Topic 1.1.** Introduction to the specialty of pathological anatomy. The history of the development of pathological anatomy.
	Topic 1.2. Features and forms of organization of the pathoanatomical work in medical institutions.
	Topic 1.3. Medical ethics and deontology. Features of ethics and deontology in pathological anatomy.
Module 2. Rules for conducting autopsy studies.	**Topic 2.1.** Rules of behavior in the autopsy room, doctor's clothes. Safety technique of behavior in the autopsy room. Compliance with sanitary and anti-epidemic rules of work in the dissecting room and biopsy unit.
	Topic 2.2. Features of the doctor's clothing in case of suspicion of infectious diseases.
	Topic 2.3. Autopsy procedure: external examination of the deceased, the state of the musculoskeletal system. Postmortem examination of the skull cavity and examination of its contents, examination of the pituitary gland. Autopsy of the thorax, examination of the thoracic cavity organs, testing for pneumothorax and air embolism. Opening of the abdomen, abdominal cavity, examination of the digestive system, examination of the retroperitoneum.
Module 3. Rules for biopsy examinations.	**Topic 3.1.** Duties of the clinician in collecting, fixing, labeling, storing, and delivering biopsy and surgical material to the histological laboratory.

	Topic 3.2. Rules for issuing relevant accompanying documents to the histological laboratory.
	Topic 3.3. Reception of operative material. Cutting out material. Processing of the material in the laboratory. Urgent biopsies. Review of biopsy preparations.
Module 4 Principles of registration and comparison of the final clinical and pathologic diagnoses.	**Topic 4.1.** Main disease, competing diseases, co-morbidities, background diseases. Complication of the main disease. Concomitant disease.
	Topic 4.2. Rules for issuing a medical certificate of death. Categories of diagnosis discrepancy.
	Topic 4.3. Objective and subjective causes of diagnostic errors.

DEVELOPERS:

Assistant of the Department of Pathological Anatomy		Tikhonova K.O.
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COURSE DESCRIPTION

31.05.01 General Medicine

(field of studies/specialty code and title)

2023-2024

Course Title	**Basics of child nutrition**
Course Workload	Credits and academic hours **- 2 credits (72 academic hours)**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 Essentials of pediatric nutrition	**1.1.** Breastfeeding.
	1.2. Mixed and artificial feeding
	1.3. Infant nutrition
Module 2 Malnutrition in children	**2.1.** Protein energy malnutrition. Kwashiorkor. Alimentary marasmus.
	2.2. Diseases associated with malabsorption syndrome
Module 3 Disorders of vitamin metabolism in children	**3.1.** Vitamin deficiencies. Rickets. Rickets-like diseases.

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2023-2024

Course Title	**Topical issues of integrative medicine**
Course Workload	Credits and academic hours – **2/72**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Introduction to Integrative Medicine	**Topic 1.1.**The body from the perspective of modern medicine. The disease from the perspective of modern medicine.
Scientific and practical aspects of the system of integrative medicine	**Topic 2.1.** Biochemical portrait of a healthy and sick person. **Topic 2.2.** Connective tissue is the main morpho-functional link in the development of diseases in a living organism. The main proteins of connective tissue are collagen and elastin. Synthesis. Features. **Topic 2.3.** Multilevel system-cybernetic organization of connective tissue components. Multiple dysplasia is the basis for a deeper analysis of human health. **Topic 2.4**. Integrative relationship of protein, lipid and carbohydrate metabolism. **Topic 2.5.** Integrative relationship of mineral and vitamin metabolism.
Integration of the body	**Topic 3.1.** The idea of the integration of the body. General theory of systems. From the cell to the tissues, organs and the whole organism. The body is an integration of complex systems.
Strategy and tactics of the treatment process in the system of integrative medicine	**Topic 4.1.** Integrative diagnostics. Integrative schemes of treatment, medical rehabilitation and prevention of diseases. **Topic 4.2**. Integrative approach in clinical medicine. **Topic 4.3**. Principles of integrative treatment: consistency, metabolism.

Fundamentals of traditional Oriental medicine.	**Topic 5.1.**Phytotherapy in the system of integrative medicine. **Topic 5.2.** Integrative approach to reflexology. Acupuncture as a system of diagnostic and therapeutic methods.
	Topic 5.3. Ayurveda in the system of integrative medicine. Ayurveda is the art of life. Ayurveda is a holistic system of medicine.

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COURSE DESCRIPTION

31.05.01 General medicine

field of studies / speciality code and title

2022-2023

Course Title	Basics of Psychophysiology
Course Workload	Credits and academic hours - 2/72
	Course contents
Course Module Title	**Brief Description of the Module Content**
Module 1. Basic approaches to the study of psychophysiological mechanisms	Hierarchy of physiological processes in the CNS. System approach in psychophysiology. Behavior. Factors that shape human behavior. Memory. Types of memory. Modern ideas about the formation of memory. Functional and morphological changes in the structures of the nervous system during short-term and long-term memorization. Motivation. functional system. The purpose of the action. Leading reflection. Action acceptor. Action programming. Reinforcement. Reverse afferentation. Systemogenesis. System specialization of neurons. Interaction of cognitive systems in purposeful behavior. The concept of the psyche. Origin and development of the psyche in phylogenesis. The problem of qualitative originality of the human psyche. The structure of the human psyche.

Module 2. Psychophysiology of emotions	Theories of emotions. Neuroanatomy of emotions. Biologically and socially significant stimuli as a source of emotions. Need-informational factors of the emergence of emotions. Cognitive processes in the genesis of emotions. Expression of emotions in animals and humans. Means of non-verbal, emotional communication. Correlation of facial muscle activity and emotions. Functional asymmetry and emotions. individual differences and emotions. Influence of extraversion, introversion, anxiety. Sex differences in emotions. Centers of positive and negative emotions. Self-irritation. Limbic system. Central vegetative network.
Module 3. Psychophysiology of thinking and speech	Signaling systems according to I.P. Pavlov. Interaction of the first and second signal systems. Symbolic display of the stimulus. The development of speech. Perception of speech signals. Wernicke center. Oral speech. Generation of reactions of the second signaling system with the participation of command neurons: articulation, gestures, written signs. Broca's area. Readiness potential. Motor potential. Semantic evoked potential. Inner speech. Thinking as externally unexpressed operations with traces of memory. Areas of brain activity and thinking. Functional asymmetry of the brain and features of intellectual activity. Verbal and non-verbal intelligence. The main provisions of the theory of activity of A.N. Leontiev. Needs, motives, emotions, personal meaning. The structure of human consciousness according to A.N. Leontiev. Concepts of individuality, temperament, character and personality.

Module 4. **Methods of psychophysiological research**	Non-electrophysiological methods in psychophysiology. Pneumography. Plethysmography. X-ray computed tomography. Structural magnetic resonance imaging (MRI). Positron emission tomography (PET). Functional magnetic resonance imaging (fMRI). Eye tracking. Electrophysiological techniques: GSR, electrooculography, Electromyography. Electrocardiography. Electroencephalography (EEG). Schemes of setting electrodes (standard installations). Basic EEG rhythms, age norms and differences. EEG in states: active, relaxed wakefulness, drowsiness, non-REM and REM sleep. Spectral analysis of the EEG and its application in psychophysiology. Interhemispheric asymmetry on the EEG. Evoked potentials of the brain, recorded by the encephalograph. Averaging technique. Differences between visual, auditory and somatosensory evoked potentials. Computer mapping of the brain. Polygraphy.
Module 5. **Principles of polygraphic examination (instrumental lie detection)**	Theoretical foundations of instrumental «lie detection». The main methodological difficulties and errors that arise during polygraph tests. Ways to counter the polygraph. General requirements for compiling a questionnaire for printing. Classical methods and tests of polygraph checks, advantages and disadvantages. Methodical methods of technique of control questions. Using the phenomenon of set in the practice of instrumental lie detection. Using the features of cognitive processes (sensation, perception, attention, memory) in the practice of polygraph tests.

Developers:

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PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA
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Institute of Medicine

educational division -faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2024

Course Title	**Basics of translation**
Course Workload	Credits and academic hours **2/72**
Course contents	
Sections	**Topics**
Section 1. The written medical interpretation: the nature, functions, specifics	**Topic 1.1** Subject, tasks and methods of translation theory. Translation theory as a scientific discipline. **Topic 1.2.** The essence and specificity of medical translation. Place, role, functions of medical translation in professional communication of medical specialists.
Section 2. Actual problems of the theory of written medical translation and their role in the optimization of translation practice.	**Topic 2.1.** The concept of translation activity, professional translation competence. **Topic 2.2.** Problems of quality of professional translation. Factors affecting the quality of translation activities.
Section 3. Moral and ethical foundations and requirements for the work of a professional translator	**Topic 3.1** The concepts of "ethics", "morality", "morality". The moral code of the translator. IMIA code of ethics. **Topic 3.2.** Ethics and etiquette, ethics and law in the field of written medical mediation.
Section 4. Typical situations of written meditative communication	**Topic 4.1.** Types of written medical translation in the context of the purposes and conditions of written translation activities. **Topic 4.2.** "The author's factor" of the medical source text. "Destination factor".

Section 5. Professionally oriented medical text / discourse and its genres as an object of translation	**Topic 5.1.** Mastering the genres of professionally oriented medical text / discourse in translation: scientific medical text; popular science text; instruction; advertising text; business letter. **Topic 5.2.** Mastering the genres of medical documentation in written professional translation.
Section 6. External means (resources) of translation work. Information retrieval strategies and techniques	**Topic 6.1.** Classification of a translator's aids: dictionaries, encyclopedias, electronic sources, Internet resources, analogical texts. The General concept of the **typology of dictionaries.** **Topic 6.2.** The algorithm of the translator's actions, the use of different types of dictionaries to solve different translation problems. Bilingual dictionary; the inadmissibility of the use of obsolete vocabularies. Monolingual dictionary.
Section 7. Electronic support of professional-oriented translation work	**Topic 7.1.** Technical means of translation. Using machine translation to work with professionally oriented medical text / discourse. **Topic 7.2.** Electronic dictionaries and reference books: types, strategies of work.
Section 8. Cross-cultural aspects of medical translation	**Topic 8.1.** Translation as a process of mediated intercultural interlingual communication. **Topic 8.2.** The problem of translation. The Language picture of the world and translation.
Section 9. Linguistic aspects of written medical translation. Lexical-semantic and grammatical transformations	**Topic 9.1.** Transfer of pragmatic meanings. Classification of types of pragmatic meanings (L.S. Barkhudarov). The role of pragmatic meanings in the translation process. Pragmatic aspect of translation. **Topic 9.2** Transmission of intra-linguistic values. Grammatical meanings in translation. Difficulties related to the discrepancy between the grammatical systems of FL and PL. The transfer syntax values. **Topic 9.3** Context and situation in translation. **Topic 9.** 4. Translation transformations.
Section 10. Stylistic aspects of medical translation. The editing of the translated text	**Topic 10.1.** Stylistic features of medical texts of different genres. **Topic 10.2.** Strategies and tactics of translation text editing, methods and means of prevention and correction of errors in written medical translation.

Developers:

Yu.N. Biryukova

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V.B. Kurilenko

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	**Biochemistry**
Course Workload	Credits and academic hours 6 credits /216
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 Structures and functions of macromolecules. Proteins. Nucleic acids. Lipids. Carbohydrates.	**Topic 1.1.** Introduction to biochemistry. Amino acids. Proteins: structure, properties, functions. Protein purification methods. Folding and intracellular degradation of proteins. Complex proteins: hemoglobin, immunoglobulins
	Topic 1.2. Carbohydrates: structure, functions, classification, properties. The concept of glycobiology, protein glycosylation. Nucleic acids. The concept of genomics. Matrix biosynthesis: replication, transcription, translation
	Topic 1.3. Lipids: structure, functions. Cell membranes.
Module 2 Enzymology and signal transduction principles	**Topic 2.1.** Enzymes. Active cite. Allosteric enzymes. Cofactors and coenzymes. Isoenzymes. Enzymatic kinetics.
	Topic 2.2. Mechanisms of regulation of enzyme activity. Enzyme inhibitors. Classification of enzymes.
	Topic 2.3. Principles of signal transduction. The concept of second messengers. Regulation of gene expression
Module 3 Energy metabolism and carbohydrate metabolism	**Topic 3.1.** Introduction to metabolism. Fundamentals of bioenergetics and metabolism. Synthesis of ATP. Oxidative phosphorylation. Mitochondrial diseases. TCA.
	Topic 3.2. Digestion and transmembrane transport of carbohydrates. Glucose homeostasis. Phosphorylation of glucose. Possible pathways for the conversion of glucose-6-phosphate Aerobic and anaerobic

	glycolysis. Energy effect. Gluconeogenesis.
	Topic 3.3 PPP, fructose, and galactose metabolism. Glycogen metabolism. Regulation of carbohydrate metabolism. Disorders of carbohydrate metabolism in diabetes mellitus and metabolic syndrome.
Module 4 Lipid metabolism.	**Topic 4.1.** Digestion, absorption, and transport of lipids. Bile acids. Dyslipidemia. Synthesis of FFA and oxidation of FFA. Energy effect of FFA oxidation.
	Topic 4.2. Synthesis of complex lipids. Synthesis and degradation of TAG. Lipolysis, oxidation of glycerol. Phospholipids. Eicosanoids. Fat soluble vitamins.
	Topic 4.3. Sphingolipids, ceramides, and glycosphingolipids. lipid metabolism disorders.
Module 5 Amino acid metabolism.	**Topic 5.1.** Common pathways of amino acid metabolism: transamination, decarboxylation. deamination of amino acids. Types of deamination.
	Topic 5.2. Detoxification of ammonia in the body. Urea cycle. Synthesis of biogenic amines. MAO and COMT.
	Topic 5.3. Metabolism of individual amino acids. Reactions of methylation and hydroxylation. Synthesis of epinephrine. Synthesis of creathine phosphate. Amino acid metabolism disorders
Module 6 Metabolism of complex proteins Metabolic integration. Clinical biochemistry.	**Topic 6.1.** Synthesis and degradation of heme. Synthesis and breakdown of purine and pyrimidine nucleotides.
	Topic 6.2. The integration of metabolism. Principles of hormonal regulation of basic metabolic processes.
	Topic 6.3. Features of the metabolism of individual organs and systems. Metabolic changes during fasting. The role of vitamins and microelements in metabolic processes. Biochemical analyzes of blood and urine in normal and pathological conditions.

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Bioethics
Course Workload	Credits and academic hours - 2 credits (72 academic hours)
Course contents	
Course Module Title	**Brief Description of the Module Content**
Unit 1. Ethics is philosophy science	**Theme 1.1** Ethics is philosophy science
	Theme 1.2 Professional Ethics
Unit 2. Bioethics: its status, range of problems. Main notions of Bioethics and Ethics.	**Theme 2.1** Bioethics: its status, range of problems
	Theme 2.2 World Medical Association and its documents
Unit 3. Modern biomedical ethics.	**Theme 3.1** Modern biomedical ethics.
Unit 4. Abortion. Ethical problems of reproduction technologies.	**Theme 4.1** Abortion. Ethical problems of reproduction technologies.
Unit 5. Ethical problems of Gene Engineering	**Theme 5.1** Gene Engineering (Humans)
	Theme 5.2 GMO plants and animals.
Unit 6. Death and Dying. End of Human Life.	**Theme 6.1** Death and Dying. Palliative medicine. End of Human Life.
Unit 7. Organ transplantation	**Theme 7.1** Organ transplantation
Unit 8. Moral problems of phisical and mental integrity of patient	**Theme 8.1** Moral problems of phisical and mental integrity of patient
Unit 9. Experiments involving Human being and animals: legislative and moral background	**Theme 9.1** Experiments involving Human being and animals: legislative and moral background

РУКОВОДИТЕЛЬ ОП ВО:

Зам. директора МИ		**Радыш И.В.**
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COURSE DESCRIPTION

31.05.03 Dentistry

field of studies / speciality code and title

Course Title	Biology
Course Workload	Credits / academic hours - 7 / 252
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 Introduction to Biology. The cell as a unit of life	Topic 1.1. Characteristics of Life
	Topic 1.2. The cell as a unit of life
	Topic 1.3. The chemical components of the cell. The structure and functions of the cell membrane.
Module 2 Genetic material. Structure and functions of nucleic acids	Topic 2.1. Structure and functions of nucleic acids
	Topic 2.2. Genes and genetic code
	Topic 2.3. DNA replication. PCR
	Topic 2.4. Variability of living things. Mutations
Module 3 Gene expression	Topic 3.1. Structure of prokaryotic genes. Synthesis of RNA molecules (transcription) in prokaryotic cells
	Topic 3.2. Structure of eukaryotic genes. Synthesis of RNA molecules (transcription) in eukaryotic cells
	Topic 3.3. Processing of RNA molecules
	Topic 3.4. Translation in prokaryotic and eukaryotic cells
	Topic 3.5. Control of gene expression in prokaryotes and eukaryotes
	Topic 3.6. Genetic material of viruses and prokaryotes
	Topic 3.7. Genetic material of eukaryotes
Module 4 Cell division	Topic 4.1. Structure of eukaryotic chromosomes. Karyotype
	Topic 4.2. Allelic and non-allelic, linked and non-linked genes
	Topic 4.3. Pleiotropic and lethal genes. The concepts of penetrance and expressivity. Types of gene interaction.

	Topic 4.4. The cell cycle, mitotic cell division. The control of the cell cycle
	Topic 4.5. Meiotic cell division
Module 5 Concepts of Genetics	Topic 5.1. Law of segregation
	Topic 5.2. Law of independent assortment
	Topic 5.3. Sex-linked inheritance
	Topic 5.4. Inheritance of linked genes
	Topic 5.5. Genetic analysis. Gene mapping
	Topic 5.6. Solving of genetic problems
Module 6 Human Genetics	Topic 6.1. Human genome
	Topic 6.2. Methods in Human Genetics
	Topic 6.3. Cytogenetic method. Twin study
	Topic 6.4. Population study
	Topic 6.5. Pedigree analysis
	Topic 6.6. Methods of Molecular Genetics
	Topic 6.7. Human heredity. Human hereditary diseases
	Topic 6.8. Non-Mendelian Inheritance. Non-Mendelian diseases
	Topic 6.9. The principles of diagnosis, prevention and treatment of human hereditary diseases
	Topic 6.10. Genetic engineering. Gene therapy
Module 7 Medical Protozoology	Topic 7.1. Basic concepts of medical parasitology
	Topic 7.2. Subkingdom Protozoa. Phylum Sarcomastigophora. Class Rhizopoda
	Topic 7.3. Class Zoomastigophorea
	Topic 7.4. Class Zoomastigophorea. Order Kinetoplastida
	Topic 7.5. Phylum Apicomplexa, Class Sporozoa
	Topic 7.6. Phylum Ciliophora, Class Ciliata
Module 8 Medical Helminthology	Topic 8.1. Phylum Platyhelminthes. Class Trematoda
	Topic 8.2. Class Trematoda
	Topic 8.3 Class Cestoda, order Diphyllobothriidea
	Topic 8.4. Class Cestoda, Taeniidae
	Topic 8.5. Class Cestoda, Hymenolepis and Echinococcus
	Topic 8.6. Phylum Nemathelminthes. Class Nematoda
	Topic 8.7. Class Nematoda, geohelminths
	Topic 8.8. Class Nematoda, biohelminths
	Topic 8.9. Ovohelminthoscopy
Module 9 Medical significance of arthropods	Topic 9.1. Phylum Arthropoda. Subphylum Branchiata, Class Crustacea. Subphylum Chelicerata, Class Arachnida

	Topic 9.2. Subphylum Tracheata, Class Insecta, order Diptera
	Topic 9.3. Subphylum Tracheata, Class Insecta, human parasites
Module 10 Evolution of the organic world. Anthropogenesis	Topic 10.1. History of evolutionary ideas
	Topic 10.2. The main points of the modern evolution theory
	Topic 10.3. Anthropogenesis
Module 11 Man and the Biosphere	Topic 11.1. Man and the Biosphere

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Bioorganic Chemistry
Course Workload	2 Credits / 72 academic hours
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Introduction. Hydrocarbons.	Topic 1.1. Introduction
	Topic 1.2. Hydrocarbons – general information and their reactivity
Module 2. Functional compounds	Topic 2.1. Alcohols. Polyols. Phenols. Thiols
	Topic 2.2. Amines. Aniline
	Topic 2.3 Aldehydes and ketones
	Topic 2.4. Carboxylic acids and their derivatives
	Topic 2.5. Lipids
	Topic 2.6. Stereochemistry
	Topic 2.7. Hydroxy Acids
	Topic 2.8. Oxo acids
Module 3. Bio-polymers and their components	Topic 3.1. Amino acids. Peptides and proteins
	Topic 3.2. Carbohydrates. Monoses. Bioses and polysaccharides
Module 4. Biologically important heterocycles	Topic 4.1. Biologically important heterocyclic systems.
Module 5. Nucleic acids and nucleotide coenzymes	Topic 5.1. Nucleic acids and nucleotide coenzymes

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2023-2024

Course Title	**BIOSTATISTICS**
Course Workload	Credits and academic hours - 2 (72)
Course contents	
Course Module Title	Brief Description of the Module Content
BASICS OF BIOMEDICAL RESEARCH	**PLANING of BIOMEDICAL RESEARCH.** Stages of biomedical research: planning and research programs; data collection; processing the collected material; data analysis, conclusions and recommendations. Population and sampling. Requirements for the sample. **TYPES OF RESEARCH.** Cross-sectional and longitudinal, prospective and retrospective studies; case-control study, cohort study, randomized clinical trials, meta-analysis
DESCRIPTIVE STATISTIC	**GRAPHICAL REPRESENTATION OF DATA** The concept of statistical graphics, the basic elements of graphics, chart types. Histogram. Empirical distribution function and its properties. **ESTIMATES OF DISTRIBUTION PARAMETERS.** Point estimation of distribution parameters, requirements for point estimates: unbiasedness, consistency, efficiency. Interval estimation of distribution parameters, confidence interval, confidence probability. Interval estimation of the mean, interval estimation of variance.

STATISTICAL ANALYSIS OF DATA.	**STATISTICAL HYPOTHESIS TESTING.** General scheme of testing statistical hypotheses. Types of errors: systematic and random errors, error I and II type. Determination of sample size. Statistical criterions, the critical area, the level of significance, power of the criterion. Pearson, Fisher and Kolmogorov criterions. Testing statistical hypotheses
	about the equality of the average to the specific numeric value. **COMPARING THE GROUPS** Statistical hypotheses about the equality of the average values of the two normally distributed populations. Testing statistical hypotheses about the equality of dispersions of the two research normally distributed general totality with unknown and known average value. Paired and unpaired samples. **REGRESSION ANALYSIS.** Linear regression, regression coefficient, regression equation, estimation of regression parameters using the least square method. Testing the hypothesis on the significance of the regression dependence. **CORRELATION ANALYSIS.** Linear and rank correlation. Pearson's linear correlation coefficient, Spearman's rank correlation coefficient. Testing the hypothesis on the significance of the correlation coefficient. **ANALYSIS OF THE CONTINGENCY TABLES.** Tables of conjugate variables, the contingency coefficients. Testing the hypothesis about the importance of the contingency coefficients. **ANALYSIS OF VARIANCE.** ANOVA table. ANOVA: mathematical model, the formulation of hypotheses, the sequence of hypothesis testing. Two-factor analysis of variance. Cross-model and hierarchical model of two-factor analysis. **Survival analysis** construction of life tables (Kaplan-Meier, Cutler- Ederer method), survival curve. Comparison of two survival curves (Logrank test, Gehan's test).

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title 2024

Course Title	***BIOTECHNOLOGY***
Course Workload	Credits and academic hours - 2 credits (72 hours)
Course contents	
Course Module Title	**Brief Description of the Module Content**
Introduction to modern biotechnology. 2. Fundamentals of BT production. 3. Cell technology in medicine. 4. Enzymes as objects and means of production of drugs. 5. Plant producers of BAS. 6. BAS produced by microorganisms. 7. Recombinant proteins and peptides. 8. Gene therapy.	1. The vectors of biotechnology development and medical applications Bioobject is the basis of biomedical technologies, classification, improvement. 2. Features of production of medicines by methods of modern biotechnology. 3. Culture of cells, organs and tissues of plants. Cultivation of organs. Animal cloning. Methods of nuclei transplantation. Cloning of mammals. Methods of preservation of cell cultures. 4. Medicines based on enzymes for substitution therapy and treatment of purulent inflammatory processes and necrosis. Enzyme preparations as biocatalysts in the pharmaceutical industry. 5. The main groups of BAS produced by plants used in medical practice. Alkaloids. Cardiac glycosides. Triterpene saponins. Terpenoids and essential oils. Flavonoids and polyphenolic compounds. 6. Antibiotics. Probiotics and normoflora. Amino acids. Vitamins. Steroids. 7. Production of genetically engineered insulin and peptide growth factors. Recombinant interleukines, interferons, etc. 8. Medicines based on gene therapy methods, the principle of approach, the concept of “pathological” protein.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	«Chemistry»
Course Workload	3 Credits /108 academic hours
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Introduction Hydrocarbons.	Topic 1.1. Goals for studying chemistry. Demonstration of the interdisciplinary nature of the discipline, formed on the scientific basis of organic chemistry and biology. Familiarization with the basics of the structure and reactivity of organic compounds. Familiarization with the classification and nomenclature of organic substances. Formation of skills for applying the rules of nomenclature.
	Topic 1.2. Familiarization with reactivity of hydrocarbons – alkanes, alkenes, alkynes, dienes and arenes. Formation of practical skills for detecting multiple bonds in the analyzed object.
Module 2. Functional organic compounds	Topic 2.1. Familiarization with reactivity of alcohols (monoatomic and polyatomic), phenols and thiols. Demonstration of acidic, nucleophilic properties of these classes of organic compounds. Biological role of sulfonium salts (S-adenosyl methionine) and thioether (acetyl coenzyme). Oxidation of alcohols and thiols with emphasis on the biological significance of such processes.
	Topic 2.2. Familiarization with reactivity of aliphatic and aromatic amines, aminoalcohols and their biological significance. Practical and biological significance of reactions amines with nitrous acid, carcinogenicity of nitrosoamines. .
	Topic 2.3. Familiarization with reactivity of aldehydes and ketones. Nucleophilic addition, oxidation, reduction (including enzymatic), reaction via α-position
	Topic 2.4. Familiarization with reactivity of carboxylic acids. Preparation of carboxylic acid derivatives and study of their properties. Biological role of carboxylic acid derivatives on the example of lipids. Biological important dicarboxylic acids. Practical study of structures of fats and oils via hydrolysis and

Course Title	«Chemistry»
Course Workload	3 Credits /108 academic hours
Course contents	
Course Module Title	**Brief Description of the Module Content**
	the use of previously acquired skills for identification of hydrolysis products.
	Topic 2.5. Familiarization with reactivity of hydroxyl acids. Structure and chemical transformations of hydroxy acids, the participants of metabolism – lactic, malic, citric acids. Demonstration of concept of stereochemistry - chiral carbon atom, configuration, chirality and chiral center.
	Topic 2.6. Familiarization with reactivity of oxo acids. Structure and properties of oxo acids, the participants of metabolism – pyruvic acid, oxalacetic acids.
Module 3. Bio-polymers (proteins and carbohydrates) and their components.	Topic 3.1. Familiarization with structure and chemical properties of amino acids. Stereoisomerism of amino acids. Biologically important reactions. Peptides and proteins. Hydrolysis of proteins. Definition of complex proteins. glycoproteins, lipoproteins, nucleoproteins, phosphoproteins. A practical demonstration of the amphoteric character of amino acids. Formation of practical skills for the detection of amino acids and proteins by chemical methods.
	Topic 3.2. Familiarization with the structure and chemical properties of monosaccharides on the example of the most important ones from a biological point of view. Familiarization with the chemical properties and structure of disaccharides. Familiarization with the chemical properties and structure of polysaccharides. The biological significance of carbohydrates.
Module 4. Biologically important heterocycles	Topic 4.1 Familiarization with the main classes of biologically significant heterocyclic compounds. The structure of porphin and heme. Keto-enol and lactim-lactam tautomerism on the example of uracil, thymine, cytosine, guanine, uric acid.
Module 5.. Nucleic acids. Nucleotide coenzymes.	Topic 5.1 Familiarization with the structure of nucleic acid monomers. Nucleosides, hydrolysis. Nucleotides, hydrolysis. RNA and DNA. The primary structure of nucleic acids. Hydrolysis. Nucleotide coenzymes AMP, ADP, ATP, NAD+, NADP, NADH+ S-adenosylmethionine, acetyl-coenzyme, FAD, $FADH_2$, their transformations in the body - phosphorylation, oxidation, reduction, methylation, acylation.
Module 6. Physico-chemistry of macromolecular compounds.	Topic 6.1 Polymers. The concept of medical polymers. Properties of HMS solutions. Features of the dissolution of HMS s as a consequence of their structure. The shape of macromolecules. The mechanism of swelling and dissolution of the HMS. Dependence of the swelling value on various factors. Anomalous viscosity of HMS solutions. Viscosity of blood and other biological fluids. Osmotic pressure of biopolymer solutions. Polyelectrolytes. Isoelectric point and methods for its determination. Donnan membrane equilibrium. Oncotic pressure of plasma and blood serum. Stability of biopolymer solutions. Salting out biopolymers from solution. Coacervation and its role in biological systems. Gelation of HMS solutions. Jelly properties: syneresis and thixotropy.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Name of the discipline	**Clinical Dentistry**
Volume discipline	**Credits and academic hours 2 (72 hr.)**
Summary disciplines	
The section titles (the) discipline	**Summary of sections (so) discipline:**
1. Introduction to Dentistry.	Topic 1. Aims and objectives of the discipline " Clinical Dentistry". The role and place of a dentist in clinical medicine . oral manifestations in some common diseases (Symptomatic and pathogenetic therapy) Topic 2. VR class. Clinical anatomy of the teeth.
2. Mistakes and complications in practice dentist general practice.	Topic 1. Mistakes and complications in practice dentist general practice.
3. Physiological and pathophysiological basis of the microcirculation in the mouth.	Topic 1. Determination of the microcirculation. Types of microcirculatory disorders. Communication microcirculatory problems with oral mucosa and dental somatic pathology.
4. The manifestations of general diseases of the mouth.	Topic 1. Manifestations in the mouth of diabetes, hypertension, blood diseases and HIV infection.
5. Providing dental care to patients with cardiac disease.	Topic 1. Features a survey of cardiac patients. Clinical experience with the department. Long-term results of clinical observations.
6. Overview of modern means and methods of beam diagnostics of the head and neck.	Topic 1. The main objectives and principles of X-ray diagnostics in the mouth. Topic 2. Types ray studies (CT, MRI, PET, CT, Bone scan)
7. The role of the dentist in solving interdisciplinary problems.	Topic 1. Parsing complex clinical cases using tools and methods for telemedicine. Demonstration clinical department material. Topic 2. Consultation on the preparation and protection of the course work.

8. Clinical simulation ambulatory situations requiring dental-surgery.	Topic 1. Clinical modeling application of composite materials for eliminating the defects of hard tissues of teeth of different origin. Clinical modeling restoring teeth with crowns, veneers and tabs. Topic 2. Demonstration of dental photographs on clinical examples from the professional experience of general practice dentist.
9. Clinical aspects of calcium metabolism in an organism. The role of calcium in the prevention of dental diseases.	Topic 1.Clinical aspects of calcium metabolism in an organism. Topic 2. The role of calcium in the prevention of dental diseases.
10. Clinical aspects of immunity in the oral cavity. Protective and function of the oral mucosa.	Topic 1. Clinical aspects of immunity in the oral cavity. Protective barrier function of the oral mucosa.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course title	Clinical pharmacology
Course workload	Credits and academic hours – 3/108
Course contents	
Course Module Title	**Brief Description of the Module Content**
General issues of clinical pharmacology.	1.1. Subject and tasks of clinical pharmacology. Clinical research. Principles ofevidence-based medicine. 1.2. Fundamentals of clinical pharmacodynamics and clinical pharmacokinetics. 1.3. Drug interactions. 1.4. Drug safety. Adverse drug reactions. 1.5. Principles of efficacy and safety assessment of drugs. Fundamentals ofrational pharmacotherapy (P-drug and P-treatment).
Specific issues of clinical pharmacology.	2.1. Clinical pharmacology of drugs affecting cardiovascular system. 2.2. Clinical pharmacology of lipid-lowering drugs and metabolism modifiers. 2.3. Clinical pharmacology of drugs affecting hemostasis and hemopoiesis. 2.4. Clinical pharmacology of drugs affecting lung functions. 2.5. Clinical pharmacology of drugs affecting GIT. 2.6. Clinical pharmacology of drugs applied in treatment of kidney disorders. 2.7. Clinical pharmacology of drugs applied in endocrinology. 2.8. Clinical pharmacology of anti-inflammatory drugs. 2.9. Clinical pharmacology of drugs applied in treatment of immune systemdisorders and allergic conditions. 2.10. Clinical pharmacology of anti-infectious drugs.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Clinical trials
Course Workload	Credits and academic hours - 2 /72
Course contents	
Course Module Title	**Brief Description of the Module Content**
1. Regulations for planning and conducting clinical trials (CTs). Types of CTs.	1.1 Legislative regulation of the field of clinical research. 1.2 Ethics committee. Ministry of Health of the Russian Federation. Obtaining permission to conduct a clinical trial. 1.3 Types of clinical trials 1.4 Phases of CTs. 1.5 Main documents in CTs.
2. Conducting clinical trials	2.1 Initialization of CT 2.2 Conducting CT 2.3 Completion of CT
3. Novel molecular targets in the treatment of cardiovascular diseases	3.1 Novel targets for lipid-lowering drugs. 3.2 Novel targets to affect the renin-angiotensin-aldosterone system (RAAS). 3.3 Novel targets for antiplatelet agents and anticoagulants.
4. Novel molecular targets in the treatment of the endocrine system diseases	4.1 Novel molecular targets in the treatment of type 1 diabetes and type 2 diabetes. 4.2 New molecular targets in the treatment of obesity.
5. Novel molecular targets in the treatment of respiratory diseases	5.1 Novel molecular targets and new groups of drugs for the treatment of bronchial asthma, COPD, idiopathic pulmonary fibrosis, cystic fibrosis, and other diseases of the respiratory system.

6. Novel molecular targets in the treatment of gastrointestinal diseases	6.1 Actual problems of pharmacotherapy of irritable bowel syndrome and potential new targets. 6.2 Novel targets for the treatment of acute pancreatitis
7. Novel molecular targets for drugs affecting central nervous system	7.1 Novel targets in the treatment of epilepsy, depressive disorders, neurodegenerative diseases, pain syndrome
8. Novel antibacterial agents to treat infectious diseases	8.1 Antimicrobial peptides (AMPs) - candidates for countering multidrug-resistant pathogens. 'Selectively targeted AMPs" (STAMP) 8.2 Oxepanoprolinamides, spiropyrimidinetrions, new bis-benzimidazoles, new fluoroquinolones, glycylcyclines, and lipopeptides. 8.3 Pathogen-specific monoclonal antibodies.

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COURSE DESCRIPTION

31.05.01 GENERAL MEDICINE

field of studies / speciality code and title

2024

Course Title	**Dermatovenereology**
Course Workload	***3*** **U (108 h.)**
Course contents	
Course Module Title	**Brief Description of the Module Content**
1. General dermatology	
Anatomy, physiology, histology of the skin.	The structure of the skin. The structure of the epidermis. Structure of the dermis. The cellular structure of the skin. The fibers of the skin. Main histopathological processes in the skin. The contents of study: Blood network of the skin. Cutaneous receptors. The innervation of the skin. Appendages of the Skin: hair, nails, glands. Functions of the skin.
Elements of rash.	The contents of study: Primary elements of the rash. Evolution of the elements. The structure of the elements. Classification of the elements. Polymorphic and monomorphic rash. Secondary elements of the rash, their formation mechanisms, classification, tackling and regression.
Examination of dermatological patients.	Value of questioning. Allergies, history of the disease. Examination of the skin and visible mucous membranes. Evaluation of subjective sensations. Carrying out diagnostic tests and samples, revealing the pathognomonic symptoms. Laboratory and instrumental methods of diagnosis.
General principles of diagnosis and treatment. Means of external therapy	The most used groups of drugs. Means of external therapy. Physiotherapy treatments. Phytotherapy. Spa-treatment.
2. Special dermatology	
Infectious, viral, parasitic skin diseases.	Etiopathogenesis. The clinical picture. The main symptoms and syndromes. Specifities in children. Differential diagnosis. Principles of diagnostics, treatment and prevention.
Psoriasis, lichen planus, pityriasis rosea.	Etiopathogenesis. The clinical picture. The main symptoms and syndromes. Differential diagnosis. Principles of diagnosis, treatment, and prevention.

Dermatitis, eczema, toxicoderma (adverse cutaneous drug reactions), Angioedema, urticaria.	Etiopathogenesis. The clinical picture. The main symptoms and syndromes. Peculiarities in children. Differential diagnosis. Diagnostic principles of treatment and prevention.
Bullous skin diseases.	Etiopathogenesis. The clinical picture. The main symptoms and syndromes. Peculiarities in children. Differential diagnosis. Diagnostic principles of treatment and prevention.
Erythema multiforme.	Etiopathogenesis. The clinical picture. The main symptoms and syndromes. Peculiarities in children. Differential diagnosis. Diagnostic principles of treatment and prevention.
Lupus erythematosus.	Etiopathogenesis. The clinical picture. The main symptoms and syndromes. Differential diagnosis. Diagnostic principles of treatment and prevention.
3. Venerology	
Syphilis	The general classification. Etiological agent. Epidemiology. Contributing factors. The incubation period. Pathogenesis. Classification of primary syphilis. The main clinical manifestations of primary syphilis The concept of decapitated syphilis. Complications. Differential diagnosis. Classification of secondary syphilis. A variety of cutaneous manifestations. Differential diagnosis. Classification of visceral syphilis. Neurosyphilis. Cutaneous manifestations. Tertiary syphilis. Classification of congenital syphilis. Classification of early congenital syphilis. Possible signs of fetal syphilis. Significant signs of fetal syphilis. Possible signs of congenital syphilis in infants. Significant signs of congenital syphilis in infants. Significant signs of late congenital syphilis. The complex is the standard serological tests. Treponemal and non-treponemal tests. Modern tests. Types of treatment for syphilis. Immunity in syphilis. Reinfection and superinfection
Gonorrhea	Training contents: Determining of the disease, etiological agent, ways of infection, the incubation period. Classification. Clinical manifestations. Complications of gonorrhea in men. Gonorrhea in women. The course of gonorrhea among girls. Ophthalmia. Prevention methods. Laboratory diagnosis of gonorrhea. Methods for the treatment of gonorrhea. The criteria for cure gonorrhea. Provocations. Prevention of gonorrhea.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Disaster Medicine
Course Workload	Credits and academic hours – 4/144
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Current state of development of purulent surgery in Russia and the world.	**Topic 1.1.** History of purulent surgery and its connection with surgical and therapeutic specialties.
	Topic 1.2. Method of active surgical treatment of purulent wounds.
	Topic 1.3. Features and principles of treating patients with wounds and surgical infections resulting from natural and technogenic disasters.
	Topic 1.4. Concept of surgical treatment of purulent focus.
	Topic 1.5. Differences between surgical treatment of purulent focus and PST wounds in traumatology. Preoperative management of patients.
	Topic 1.6. Selection of a medication for local treatment depending on the phase of the wound process. Features of local treatment of burn wounds.
Module 2. Provision of first aid, emergency and urgent medical care at the pre-hospital stage. Circulatory arrest. Basic cardiopulmonary resuscitation.	**Topic 2.1.** Professional standards and qualification requirements for doctors of various specialties in terms of providing emergency and urgent medical care.
	Topic 2.2. Basic cardiopulmonary resuscitation and automated external defibrillation in adults. BLS and AED combined.
	Topic 2.3. Types of circulatory arrest (asystole, electromechanical dissociation, ventricular fibrillation, pulseless ventricular tachycardia).
	Topic 2.4. Methodology for performing basic and advanced resuscitation by one and two

	providers (medical personnel) in adults and children.
	Topic 2.5. Methods of temporarily ensuring the patency of the upper airways.
	Topic 2.6. Work in the form of a game in a simulated environment with clinical scenarios using standard medical equipment and improvised means for immobilization and transportation.
Module 3. Reconstructive and plastic operations in purulent surgery. Autodermoplasty. Wound plasty using local tissues.	**Topic 3.1.** Classification of reconstructive and plastic operations.
	Topic 3.2. Autodermoplasty: types, methodology, indications for use.
	Topic 3.3. Wound plasty using local tissues: types, methods of implementation, indications for use.
	Topic 3.4. Classification of flaps. Indian plastic surgery, Italian plastic surgery.
	Topic 3.5. Reconstructive and plastic operations in the surgical treatment of deep bedsores.
	Topic 3.6. Microsurgical transplantation of tissue complexes: types, techniques, indications for use.
Section 4. DM. General concepts of disaster medicine. Medical triage. Desmurgy (bandaging).	**Topic 4.1.** Problems and prospects of DM development. Types of assistance, medical triage of victims, medical evacuation of victims.
	Topic 4.2. Medical and evacuation support of victims in emergency situations. Concept of desmurgy (bandaging).
	Topic 4.3. Work in the form of a game in a simulated environment with clinical scenarios using standard medical equipment and improvised means to stop bleeding.
Section 5. Potent and toxic substances.	**Topic 5.1.** Basic concepts of toxicology.
	Topic 5.2. Organization of medical assistance to individuals affected by hazardous chemicals (in the focus and outside the focus of chemical contamination).
Section 6. Pharmaceutical safety.	**Topic 6.1.** Basic concepts of toxicology.
	Topic 6.2. Features of medical waste disposal. Medical waste classes and sorting.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Economics
Course workload	Credits and academic hours 2/72
COURSE CONTENTS	
Course Module Title	**Brief Description of the Module Content**
Module 1 Introduction	**Topic 1.1.** Introduction to Economics
	Topic 1.2 General characteristics of market economy
Module 2 Microeconomics	**Topic 2.1.** Market of final goods and services. Supply and Demand
	Topic 2.2. Consumer behavior
	Topic 2.3. Costs of production
	Topic 2.4. Market structure
	Topic 2.5. Market of resources
Module 3 Macroeconomics	**Topic 3.1.** Introduction to Macroeconomics
	Topic 3.2. Aggregate Demand and Aggregate Supply
	Topic 3.3. Economic growth and economic cycle
	Topic 3.4. Inflation and unemployment
	Topic 3.5. Fiscal and monetary policies
Module 4 World Economy	**Topic 4.1.** World economy and its evolution
	Topic 4.2. International economic relations
	Topic 4.3. Globalization
	Topic 4.4. Key features of Russia's economy in transition

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COURSE DESCRIPTION

Course Title	«Endocrinology»
Course Workload	Credits and academic hours **2/72**
THE CONTENT OF THE DISCIPLIN	
Sections	**Contents**
Section 1. Diabetes mellitus	Topic 1.1.: Diabetes mellitus (DM), uncomplicated course. Classification, primary diagnosis and metabolic control. Nutrition and physical activity. Hypoglycemic and antihyperglycemic therapy. Insulin therapy.
	Тема 1.2: Emergency conditions in patients with diabetes mellitus. Pregnancy management in patients with diabetes mellitus.
	Topic 1.3: Late complications of diabetes mellitus - diabetic microangiopathies. Eye damage in patients with DM. Diabetic nephropathy (DN). Chronic kidney disease (CKD)
	Topic 1.4: Late complications of diabetes mellitus: diabetic macroangiopathies. Diabetic polyneuropathy. Therapeutic training is the "School of the DM patient".
Section 2 General endocrinology	Topic 2.1: Diseases of the thyroid gland. Endemic and sporadic goiter. Diffuse toxic goiter. Hyperthyroidism.
	Topic 2.2: Inflammatory diseases of the thyroid gland. Hypothyroidism. Diseases of the parathyroid glands and other disorders of calcium metabolism.
	Topic 2.3: Diseases of the hypothalamic-pituitary system. Obesity.
	Topic 2.4: Diseases of the adrenal glands.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	**Endoscopic Urology**
Course Workload	Credits and academic hours- **3 credits (108 hours)**
Course contents	
Course Module Title	**Brief Description of the Module Content**
The history of endoscopic urology, current state and prospects. Organization of endosurgical operation.	The history of the development of endoscopic diagnostic methods in urology. Instrumental and endoscopic methods for the study of the urological patient. Endoscopic surgery as a method of surgical treatment of diseases, with the implementation of radical interventions through pinhole tissue punctures or natural physiological holes. Requirements for the complex endoscopic operating room

General technique of endourological procedures: Urethrocystoscopy Ureteroscopy, ureteral catheterization Contact lithotripsy	Urethrocystoscopy. Indications, contraindications, technique of performance, evaluation of results. Urethroscopy: dry and irrigation. Indications, contraindications, technique of performance, assessment of results Contact lithotripsy. Indications, contraindications, technique of performance, assessment of results

General technique of endourological procedures: Nephroscopy Lapaxia Percutaneous nephrostomy	Nephroscopy Indications, contraindications, technique of performance, evaluation of results. Lapaxia. Indications, contraindications, technique of performance, assessment of results PNS. Indications, contraindications, technique of performance, assessment of results

Transurethral Prostate Surgery	The choice of method of anesthesia for TURP. The organization is operating. Variants of TURP: pseudo- TURP, partial TURP, total TURP, radical (sub-radical) TURP. Indications, contraindications, technique of performance, assessment of results
General technique of endosurgical procedures. Laparoscopic operations on the pelvic organs	Equipment and instruments for laparoscopic operations. Preparation of laparoscopic operating. The main stages of laparoscopic surgery in urology. Laparoscopic adenomectomy, radical prostatectomy, cystectomy. Indications, contraindications, technique of performance, assessment of results
Laparoscopic kidney surgery	Laparoscopic nephrectomy, kidney resection, nephropexy, kidney cyst removal, retroperitoneoscopic ureterolithotomy Indications, contraindications, technique, evaluation of results
Test	Full-time test

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COURSE DESCRIPTION

31.05.01 General Medicine
field of studies / speciality code and title

Course Title	English Language: Basic Terminology for Medical Students
Course Workload	Credits and academic hours **3/108**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Medical terminology	Topic 1.1. Hospital departments
	Topic 1.2. Hospital staff
	Topic 1.3. Hospital equipment
	Topic 1.4. Parts of the body
	Topic 1.5. Respiratory system
	Topic 1.6. Circulatory system
	Topic 1.7. Digestive system
	Topic 1.8. First aid
	Topic 1.9. Common abbreviations
	Topic 1.10. Measurements
	Topic 1.11. Maintaining hygiene
	Topic 1.12. Health and illness. Basics
	Topic 1.13. Medical and paramedical personnel and places
	Topic 1.14. Medical education and training
	Topic 1.15. Systems, diseases and symptoms

	Topic 1.16. Epidemiology
	Topic 1.17. Ethics

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course title	**Epidemiology**
Total course workload	Credits and academic hours - 3 credits (108 academic hours)
Course contents	
Course Module Title	**Brief Description of the Module Content**
1. General epidemiology. Epidemiological method and evidence-based medicine. Epidemiological studies.	A brief history of the epidemiology development: the pre-bacteriological period and period of bacteriological discoveries. Impact of bacteriological discoveries on the development of the theory and practice of epidemiology. Epidemiology in the system of medical education, the relationship of epidemiology with other medical sciences.
2. Air borne infectious diseases	Epidemiological method. Epidemiological diagnosis. Epidemiological analysis (descriptive analysis). Epidemiological way of thinking. Epidemiological studies: experimental and observational.
3. Epidemic process. Epidemiological surveillance.	The role of L.V. Gromashevsky in the development of the doctrine of epidemic process. Three elements of epidemic process: source of infection, mode of transmission and susceptible organism. Manifestations of the epidemic process. Control measures.
4. Blood borne infectious diseases	Three groups of control measures: measures applied to the source of infection (infected host), measures directed at interrupting transmission (vectors, objects of the environment), measures applied to the susceptible organism.
5. Integumentary manifestations of infectious diseases	Principles of infectious disease prevention. Prevention through actions at primary, secondary and tertiary levels. Epidemiological surveillance is the foundation for immediate and long-term strategies for combating infectious diseases.

6. Natural focal disease theory. Sapronoses.	Natural focal disease theory by E.N. Pavlovsky. Natural, synanthropic and anthropurgic foci of infectious diseases (definitions). Reservoirs of natural focal diseases. The role of wild, semi-synanthropic, synanthropic mammals, and birds in the formation of natural and anthropurgic foci.
7. Syndrome diagnosis. Emergency conditions in infectious diseases.	Specific vectors of causative agents of natural focal diseases. The environment as a reservoir of sapronoses. Technogenic and ecological niches of sapronose pathogens. Epidemiological surveillance of natural focal diseases.
8. Disinfection. Sterilization.	Definition of disinfection. Types of disinfection: prophylactic and focal (current and final). Mechanical, physical and chemical methods of disinfection. Requirements for disinfectants. The groups of chemicals used as disinfectants. Disinfection for different groups of infections. Disinfection chambers. Quality control of disinfection.

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educational division -faculty/institute/academy

Course Title	Evidence Based Medicine
Course Workload	Credits and academic hours – 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 An introduction to evidence-based medicine. Evidence levels.	Evidence-based medicine as the main way to improve the quality of medical care to the population. The history of the development of evidence-based medicine. Basic concepts and methods. Objectives of evidence-based medicine, role in the training of a doctor. Levels of evidence (A, B, C) and grades of recommendation (I, IIa, IIb, III). Systematic view. Meta-analysis.
Module 2 Statistics in Evidence-Based Medicine. Analysis of publications from the standpointof evidence-based medicine.	Basic statistical knowledge required to interpret evidence-based medicine data. Graphic presentation of statistical data. Sources of professional information. Analysis of publications from the standpoint of evidence-based medicine.Conflict of interest.
Module 3 Pharmacoepidemiology. Pharmacoeconomics.	Definition. Types of pharmaco-epidemiological studies Basic methods of pharmaco-epidemiological analysis and modeling. Analysis of drug consumption.
Module 4 Clinical research. Formular system. Adversedrug reactions.	Clinical trials of medicines: phases,GCP, ethical and legal norms. Formular system: principles of construction, methods of choosing medicines. The system for the rationaluse of medicines in Russia. Classification of ADR. Monitoringmethods. Pharmacovigilance.

Module 5 Application of the principles and methods ofevidence-based medicine in the health care system.	Uniform standards for the presentationof the results of randomized controlled trials The concept of GLP. Development and implementation ofclinical guidelines, standards and protocols. Clinical thinking and logic of diagnosis, specific patient management tactics in the era of evidence-based medicine.

COURSE DESCRIPTION

31.05.01General Medicine

field of studies / speciality code and title

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title 2023-2024

Course Title	**Examination of temporary disability**
Course Workload	Credits and academic hours - 2 credits and 72 academic hours
Course contents	
Course Module Title	**Brief Description of the Module Content**
I. The normative base of examination of temporary disability (ETD).	The main legislative and regulatory instruments for the examination of disability.
II. ETD in various diseases and conditions.	ETD in diseases of the cardiovascular system, nervous system, respiratory system, obstetric practice, medicine, surgery, traumatology and orthopedics, pediatrics. Estimated time of disability.
III. The methodology of the organization of ETD in a medical organization.	Practical aspects of registration and issuance of sick leaves in the outpatient and inpatient facility. Mandatory accounting and operational documentation for ETD in a medical organization.
IV. The role of the Medical Commission at ETD.	The technology of carrying out examination of temporary disability by self-employed physician and in medical organizations: issues of temporary disability in the work of the Medical Commission. Controversial and complex cases of ETD.
V. Criteria and technology of direction on MSE (medico- social examination).	The selection criteria for medico-social examination, technology of directions for the MSE and the registration of medical certificate during the disability.
VI. Legal liability under ETD.	Medical error at ETD. Classification and analysis. Legal liability of medical institution, it's head and a doctor.

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COURSE DESCRIPTION

31.05.01 General Medicine field of
studies / speciality code and title

2024

Course Title	***Faculty Surgery***
Course Workload	Credits and academic hours **– 5/180**
Course contents	
Course Module Title	**Brief Description of the Module Content**

Particular issues of surgery	1. Appendicitis. Acute appendicitis. Clinic. Diagnostics. Treatment. Complications of appendicitis. Clinic. Diagnostics. Treatment. Chronic appendicitis. Clinic. Differential diagnosis. Indications for surgery. 2. Hernias. The General notion about hernias. Types of hernias. Inguinal hernia. Congenital inguinal hernias. Femoral hernias. Umbilical and hernia of the white line of the abdomen. Anatomy. Differential diagnosis Clinic. Surgical treatment. Strangulated hernia. Views. Clinic. Diagnostics. Treatment. Clinic, diagnosis. Features of operational equipment. 3. Bowel disease. Crohn disease. Ulcerative colitis. Clinic. Diagnostics. Treatment. Complications. Diverticulosis of the large intestine. Complications. Diagnostics. Treatment. Colon cancer. Clinic. Diagnostics. Treatment. 4. Breast disease. Benign breast tumors. Views. Method of treatment. Breast cancer. Classification. Clinic. Diagnosis, treatment. 5. Liver disease. Liver cancer. Views. Diagnostic method. Treatment. Portal hypertension syndrome. Cirrhosis. Diagnostics. Complications. Clinic. Treatment. Echinococcus of the liver. Species. Diagnosis. Treatment. 6. Diseases of the stomach and duodenum. Gastric and duodenal ulcer. Conservative therapy. Indications for surgical treatment. Methods of surgical treatment. Complications of duodenal ulcer. Clinic. Diagnostics. Treatment. Stomach cancer. Classification. Clinic. Diagnostics. Type of operation. Cancer of papilla Fateri. Clinic. Diagnostics. Treatment. 7. Diseases of the rectum. Hemorrhoids. Complications. Diagnostics. Treatment. Benign tumors of the rectum. Clinic. Diagnostics. Treatment. Rectal cancer. Diagnostics. Treatment.

	8. Vascular disease. Varicose disease. Diagnostics. Clinic, complications. Treatment. Atherosclerosis of vessels of the lower extremities. Clinic. Diagnostics. Treatment. Complications. Differential diagnosis of atherosclerosis and obliterating endarteritis of the lower extremities. 9. Thyroid disease. Thyrotoxic goiter. Clinic. Diagnostics. Treatment. Graves' disease. Clinic. Diagnostics. Treatment. Endemic goiter. Classification, diagnosis. Treatment, prevention. Complications of thyroid surgery. 10. Calculous cholecystitis. Acute cholecystitis. Clinic. Diagnostics. Treatment. Complications of cholecystitis. Chronic cholecystitis. Clinic. Diagnostics. Treatment. Type of operation. 11. Intestinal obstruction. Classification. Clinic. Methods of conservative and surgical treatment. Mechanical and dynamic intestinal obstruction. Classification. Reasons. Views. Clinic. Diagnostics. Treatment.. 12. Mechanical jaundice. Reasons. Diagnostic method. Treatment. 13. Pancreatitis. Acute pancreatitis. Classification. Clinic. Diagnostics. Treatment. Complications. Chronic pancreatitis. Classification. Clinic. Methods of diagnosis and surgical treatment. 14. Peritonitis. Classification. Etiopathogenesis. Clinic. Treatment. Ways to reduce mortality. 15. Special research methods. Methods of endoscopic diagnosis of diseases of the digestive system. Modern methods of early diagnosis of tumors of the digestive tract. X-ray contrast methods for the study of bile ducts.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Faculty Therapy
Course Workload	Credits and academic hours – 8/288
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 **The Respiratory System**	Acute and chronic bronchitis. Ethiology, pathogenesis, classification, clinical findings, complications. Defense mechanisms of the respiratory system. The role of smoking in the development of lung and heart diseases. The meaning of spirometry in the diagnosis ofrespiratory failure. Acute pneumonia. Ethiology, pathogenesis, classification. Atypical pneumonia. Microorganisms. Particularity in progression. Lung abscess. Bronchiectasis. Pleuritis. Ethiology. Diagnosis. The significance of pleural tapping. Treatment. Bronchial asthma. Classification, particularity in progression, treatment of different types of bronchial asthma. Status asthmaticus. Chronic obstructive pulmonary diseases. Pulmonary hypertension. Causes, clinicals, treatment. Chronic cor pulmonale. Ethiology, pathogenesis, clinical findings, diagnosis, complications, treatment. Rheumatism. Ethiology, pathogenesis, Particularity in haemodynamics in various malformations. The meaning of streptococcal infections.

Module 2 **Cardiovascular system**	Diagnosis of heart malformations. Particularities of heart sounds and murmurs in malformations. Treatment and prophylaxis of rheumatism. Acquired heart malformations. Diagnosis. Treatment. Infective endocarditis. Classifications. Ethiology, pathogenesis, clinical findings. Particularities of cardiac lesions .Particularities in the progression of infective endocarditis. Treatment, the use of antibacterial therapy and surgical methods in treatment. Cardiomyopathy. Ethiology. Classification. Clinical findings in dilated, hyperthrophic, restrictive cardiomyopathy. Medical treatment. Role of heart transplantation. Hypertension. Ethiology, pathogenesis, clinical findings. Understanding of

	different types of clinical features of hypertension. Risk factors. Classification. Prophylaxis. Treatment. Atherosclerosis Ethiology and pathogenesis. The role of atherosclerosis in ischaemic heart disease. Ischaemic heart disease. Risk factors. Clinical findings. Angina pectoris. Classification. The role of coronarography in diagnosis. Medical treatment of angina. Role of surgical methods of treatment. Aortocoronary shunts, balloon angioplasty, stenting. Myocardial infarction. Pathogenesis. Clinical findings, complications. Treatment. The understanding of acute coronary syndrome. Indicationsand contraindications in the use of the drugs and their side effects. ECG. Their role in the diagnosis of cardiovascular diseases. Arrhythmias and conduction defects. Diagnosis. Clinical importance. Treatment. Main groups of antiarrhythmic drugs. Indications and contraindications in the use of the drugs in different types of arrhythmias. Indications for cardiostimulation.
Module 3 Liver diseases	Main clinical findings. Cytolysis (hepatocyte damage), cholestasis, jaundice, liver synthetic dysfunction, portal hypertension, hypersplenism. Acute and chronic hepatitis. Ethiology, pathogenesis. Clinical findings. The role of viral hepatitis. Antiviral therapy. Indications and contraindications, complications. Liver cirrhosis. Classification. Ethiology, pathogenesis. Clinical findings. Treatment, liver synthetic dysfunction. Pathogenesis, clinical findings. Medicated and non- medicated treatments. Alcoholic disease. Visceral manifestations. Pathogenesis. Clinical findings, diagnosis, complications, treatment. Stigmata of chronic alcoholic intoxication.. Primary biliary cirrhosis. Ethiology, pathogenesis. Clinical findings, treatment. Haemochromatosis, Wilson`s disease. Ethiology, pathogenesis. Clinical findings, diagnosis, treatment. Portal hypertension. Clinical findings, complications, treatment.

Module 4 Renal medicine	Main clinical findings.: acute nephritis, urinary, hypertonic, nephrotic, urinary infections, acute renal failure. Acute and chronic glomerulonephritis. Ethiology , pathogenesis. Clinical findings. Clinical and morphological classification of chronic glomerulonephritis. Treatment. Proliferative glomerulonephritis. Clinical findings, treatment. Amyloidosis. Ethiology. Pathogenesis. Classification. Clinical findings. Visceral manifestation of amyloidosis. The role of biopsy in the diagnosis of amyloidosis. Chronic renal failure. Ethiology pathogenesis, clinical and laboratory findings, diagnosis, complications, treatment. Understanding of haemodialysis. Indications and contraindications in their use. The role of kidney transplantation in the treatment of renal failure.
Module 5 Hematology	Anaemia. Classification. Microcytic, macrocytic, normocytic, anaemia. Normochromic, hyper-and
	hypochromic anaemia. Ethiology, clinical findings. Treatment. Megaloblastic anaemia. Ethiology, diagnosis, treatment. Haemolytic anaemia. Ethiology, principles of diagnosis, treatment. Aplastic anaemia. Ethiology. Diagnosis, treatment. Acute and chronic leukemia Ethiology, pathogenesis,clinical findings, diagnosis, complications, treatment. The role of bone marrow transplantation. Schema of cytotoxic(cytostatic) drugs. Myeloma. Pathogenesis clinical and laboratory findings. Principles of treatment. Hodgkin`s disease. Clinical findings. Principle of treatment.
Module 6 Endocrinology	Toxic multinodular goitre. Hypothyroidism. Ethiology, pathogenesis. Clinical findings. Laboratory findings. Medical treatment. Indication for surgical treatment. Diabetes mellitus. Ethiology, pathogenesis. Classification. Clinical findings, diagnosis, complication, treatment. Hyperglycaemic, hypoglycaemic,hyperosmolar coma. Differential diagnosis. Clinical findings. Treatment. The main complaints. Physical research methods (examination, palpation, percussion, auscultation). Instrumental research methods, laboratory research methods. The main clinical syndromes. Fundamentals of private pathology (thyroid disease, diabetes).
Module 7 Rheumatology	Rheumatoid arthritis. Ethiology, pathogenesis,. Clinical findings. Articular and extra-articular findings. Classification. Laboratory findings. Treatment. Drug treatment in rheumatoid arthritis.NSAID. Groups. Side effects and their prophylaxis. Osteoarthritis. Ankylosing spondylitis. Reiter`s syndrome. Ethiology, pathogenesis, clinical findings, diagnosis, complications, treatment.
Module 8 Metabolic dysfunction	Gout. Classification. Clinical findings, laboratory diagnosis. Alcoholism. Ethiology, pathogenesis, clinicals, complications,treatment.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Forensic medicine
Course Workload	3/108
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Procedural and organizational issues of forensic medical examination. Inspection of the crime scene and examination of the corpse at the place of its discovery.	Topic 1.1. General overview of the structure and organization of the forensic medical service in the Russian Federation, the legal regulation of the forensic medical examination, the limits of its competence.
	Topic 1.2. Objects of forensic medical examination, methods of their expert research, diagnostic capabilities. The rights and obligations of an expert and a specialist in the field of medicine when conducting a forensic medical examination and urgent investigative actions (inspection of the crime scene).
	Topic 1.3. Inspection of the crime scene and examination of the corpse at the place of its discovery. The role of a doctor, features of the procedure depending on the category, manner and type of death.
Module 2. Forensic thanatology (general and particular). Forensic toxicology (general and particular).	Topic 2.1. Thanatology (terminal conditions; euthanasia; lethargy; early and late cadaveric phenomena). Medical and legal aspects of the statement of death, the establishment of the fact of the occurrence of human death.
	Topic 2.2. Methods of examination and expert evaluation of supravital reactions, early and late cadaveric changes, destruction of the corpse by animals, insects and plants. Establishing of the time of death.
	Topic 2.3. Causes of death due to various diseases, injuries and poisonings and their morphological diagnostics.
Module 3. Forensic traumatology (general and particular).	Topic 3.1. The doctrine of injuries (bruises, abrasions, hematomas, wounds, fractures, etc.). Mechanisms of their formation, morphological properties and distinctive features.

	Determination of the weapon according to the properties and features of the damage.
	Topic 3.2. Mechanical injuries, gunshot injuries, car injuries, death from the action of external factors. Features of thanatogenesis according to various types of external factors.
Module 4. Forensic medical examination of living persons.	Topic 4.1. Procedure for the organization and carrying out of the medical examination of victims, accused persons, etc. Rules and Medical criteria for determining the severity of harm to human health. Estimating of the loss of general and professional working capacity. Forensic medical documentation.
	Topic 4.2. Forensic examination in cases of crimes against the sexual inviolability of the individual, forensic medical examination in cases of the former pregnancy, childbirth.
	Topic 4.1. Procedure for the organization and carrying out of the medical examination of victims, accused persons, etc. Rules and Medical criteria for determining the severity of harm to human health. Estimating of the loss of general and professional working capacity. Forensic medical documentation.
Module 5. Forensic medical examination of a corpse (forensic autopsy).	Topic 5.1. Reasons for forensic medical expertise (examination) of the corpse. Forensic medical documentation. Principles of formulating a forensic medical diagnosis and expert conclusions (expert opinion) based on autopsy findings. Registration of a medical death certificate (ICD).
	Topic 5.2. Forensic medical examination of sudden death.
	Topic 5.3. Forensic medical examination of the corpse of a newborn baby.
Module 6. Laboratory research methods in forensic medicine. Examination of the case materials. Forensic examination in cases of medical malpractice.	Topic 6.1. Examination of the evidence of biological origin (blood, semen, saliva, hair). Methods for their identifying, gathering and packaging.
	Topic 6.2. Requirements for execution of medical documentation and description of injuries found in patients.
	Topic 6.3. Professional offenses of medical workers and responsibility for them. Iatrogenic complications, an accident in medical practice, defective and improper provision of medical care, medical error, etc.
Module 7. Forensic medical examination of mechanical asphyxia.	Topic 7.1. General lifetime characteristics of mechanical asphyxia. Signs of asphyxia revealed during external and internal examination of the corpse. Principles of formulating a forensic medical diagnosis and expert conclusions (expert opinion) during a

	forensic medical expertise (examination) of a corpse. Registration of a medical death certificate (ICD).
	Topic 7.2. Features of thanatogenesis in different types of mechanical asphyxia.

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Course Title	***General surgery***
Course Workload	Credits and academic hours – **6/216 hours**
Course contents	
Course Module Title	**Brief Description of the Module Content**
1. General surgery issues	Bleeding, blood loss. Blood products and components Blood transfusion complications. Asepsis. Asepsis. Antisepsis. Bleeding. Hemotransfusion. Preoperative and postoperative periods. Operation. Wounds. Burns. Burn disease. Frostbites. Necrosis. Ulcers. Fistulas. Plastic surgery. Principles of surgical oncology. Local anesthesia. Novocaine blocks. Special diagnostic methods in surgery.

2. Particular issues of surgery	Local and General reaction of the body to infection Surgical sepsis. Principles of treatment of purulent infection Purulent diseases of soft tissues (furuncle, carbuncle, hydradenitis, erysipelas, abscess, phlegmon). Acute inflammation of lymphatic and venous vessels (lymphangitis, lymphadenitis, acute thrombophlebitis). Purulent inflammation of parotid glands and breast (acute parotitis, acute mastitis). Acute paraproctitis. Purulent diseases of fingers and hand. Osteomyelitis. Chest purulent infection (pleural empyema). Peritonitis. Anaerobic infection (clostridial and non-clostridial infection, tetanus). Closed soft-tissue injuries. Fractures and dislocations. Closed craniocerebral injury (concussion, contusion, brain compression). Chest trauma (pneumothorax, hemothorax). Abdominal trauma.

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2024

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COURSE DESCRIPTION

31.05.01 General Medicine field of

studies / speciality code and title

2022-2023

Course title	**Health and Safety**
Course Workload	Credits and academic hours **- 2_credits (__72___hours)**
Course contents	
Modules and topics	**Brief Description of the Module Content**
Module 1. Theoretical basis	**Topic 1.1.** System "Human-environment"
	Topic 1.2. Risks
	Topic 1.3. Natural emergencies
	Topic 1.4. Man-made emergencies
	Topic 1.5. Life Safety Management
	Topic 1.6. Monitoring as a basis for managing human life safety
Module 2. Dangers in everyday life	**Topic 2.1.** Rules of conduct in natural emergencies
	Topic 2.2. Rules of conduct in case of man-made emergencies
	Topic 2.3. social emergencies
	Topic 2.4. Terrorism is a threat to society
	Topic 2.5. Harmful addictions and their social consequences
Module 3. Basic principles of legal support of BZ for medical workers.	**Topic 3.1.** Basic principles of legal support of BZ. The main legislative acts and standards to ensure the safety of the population.
	Topic 3.2. Legal bases of ecological safety.
	Topic 3.3. Protection of public health and safety.

	Topic 3.4. Responsibility for violation of regulatory legal acts on the life safety of the population.
	Topic 3.5. Fundamentals of mobilization preparation of the health care system; basics of the health care system in wartime (when mobilization is announced)
Module 4. Providing first aid to those injured in an emergency	**Topic 4.1.** Cardiopulmonary resuscitation, bleeding control, transport immobilization of the victims' limbs.
	Topic 4.2. The concept of desmurgy.
	Topic 4.3. Simulation of various emergency situations.
	Topic 4.4. Types of first aid kits. Filling the first aid kit.
	Topic 4.5. First aid for burns, frostbite, external bleeding, poisoning, injuries.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	**Histology, embryology, cytology**
Course Workload	Credits and academic hours **7 Credits (252 hours)**
Course contents	
Course Module Title	**Brief contents of sections (subjects) of the discipline**
Section 1. Introduction to the discipline. Research methods	**1.1.** Methods of histological, cytological and embryological studies
Section 2. Cytology.	**2.1.** Cell structure
	2.2. Organelles and inclusions
	2.3. Nucleus: structure, functions. Cell cycle
Section 3. Basic Histology.	**3.1.** The concept of tissues. Epithelia. Glands.
	3.2. The system of the internal environment tissues. Blood and lymph. Hematopoiesis.
	3.3. Connective tissues. Connective tissue proper. Connective tissues with special properties.
	3.4. Skeletal connective tissues. Cartilage. Bone tissues.
	3.5. Muscle tissues
	3.6. Nerve tissue
Section 4. Histology of organs and organ systems	**4.1.** Nerve System
	4.2. Sensory system (Organs of special senses)
	4.3. Circulatory system
	4.4. System of organs of hematopoiesis and immune defense
	4.5. Endocrine system
	4.6. Digestive system
	4.7. Respiratory system
	4.8. Skin and its derivatives
	4.9. Urinary system
	4.10. Reproductive system
Section 5. Embryology	**5.1**. Basic (Comparative) Embryology
	5.1. Bases of Human Embryology

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	History of Medicine
Course Workload	Credits and academic hours 3/108
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Introduction. Early kinds of healing in Primeval Era	Topic 1. Early kinds of healing in Primeval Era
Module 2. Healing and Medicine in Ancient East Civilizations	Topic 2. Healing and Medicine in Ancient Mesopotamia (Sumer, Babylonia, Assyria) and Ancient Egypt Topic 3. Healing and Medicine in Ancient India and Ancient China
Module 3. Healing and Medicine in Ancient Mediterranean countries	Topic 4. Healing and Medicine in Ancient Greece Topic 5. Healing and Medicine in Ancient Rome.
Module 4. Medieval Medicine (V–XV centuries)	Topic 6**.** Medicine in the Byzantine Empire and Medieval East (the Caliphates; Middle and Central Asia) Topic 7. Medicine in Medieval Western Europe (V–XV centuries) and in Medieval (Old) Russ (IX–XV centuries)
Module 5. Medicine in Early Modern Time (XV – early XVII century)	Topic 8. Renaissance Medicine in Western Europe Topic 9. Medicine in Pre-Hispanic Americas before and after the conquest (Mayas, Aztecs, Incas) and in the Russia State (XV–XVII centuries)
Module 6. Biological Sciences and Medicine in Modern Time (mid XVII – early XIX century)	Topic 10. Medico-Biological Sciences in Modern Time (Biology and Genetics, Anatomy, Histology, Pathology, Microbiology) Topic 11. Medico-Biological Sciences in Modern Time (Physiology and Experimental Medicine)
Module 7. Clinical Medicine in Modern Time (mid XVII – early XX century)	Topic 12. Clinical Medicine in Modern Time (Internal diseases; Infectious diseases and Epidemics) Topic 13. Clinical Medicine in Modern Time (Problems and progress of Surgery; History of Nursing)

Module 8. Medicine and Public Health in the XX century	Topic 14. Medicine and Public Health in the XX century (History of the Nobel Prizes in Physiology or Medicine; Medicine and Public Health in Russia in XIX–XX centuries; International co-operation in Public Health and Medicine)

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	History of Russia
Course Workload	Credits and academic hours - 4/144
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module I. Theory and methodology of Historical Science	1.1 History as science
Module II. Ancient Rus in Medieval age	2.1 Ancient Rus’
	2.2 Feudal fragmentation and struggle for independence
	2.3 Formation of the Russian united state
Module III. Russia on the brink of New Age and in the New Age	3.1 Russia in the XVI century. Ivan the Terrible
	3.2 Time of Troubles and the beginning of Romanov’s reign
	3.3 Peter I and his age
	3.4 The age of Palace coups
	3.5 The Russian Empire in the second half of the XVIII century
	3.6 Russia in the first quarter of the XIX century. Paul I. Alexander I. Patriotic war of 1812
	3.7 Decembrists movement. Reign of Nicholas I
	3.8 Alexander II and the era of reforms
	3.9 Russian Empire during the reign of

	Alexander III 3.10 Features of the development of capitalism in Russia (the last quarter of the XIX century.)
IV. Russia and USSR in contemporary times	4.1 Russian Empire in the beginning of XX cent. Nicholas II.
	4.2 Revolutions in Russia
	4.3 Domestic policy of Soviet Russia and the USSR in the prewar period
	4.4 The USSR during the great Patriotic war (1941-1945)
	4.5 Postwar years. The beginning of Khrushchev's rule.
	4.6 Thaw as a special stage of development of the USSR.
	4.7 USSR under L. Brezhnev
	4.8 USSR in 1985-1991. Perestroika.
	4.9 Collapse of the USSR and the creation of CIS
	4.10 Formation of modern Russia. Vladimir Putin.
	4.11 The role of RUDN as a "soft power" in the international relations

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COURSE DESCRIPTION

31.05.01 General Medicine
(field of studies/specialty code and title)

Course Title	**Hospital Surgery, Pediatric Surgery**
Course Workload	**10 credits (360 academic hours)**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Section 1 Cardiovascular Surgery	**Topic 1.1.** Anatomy of the cardiovascular system. General issues of diagnosis and treatment of diseases of the heart and blood vessels (ultrasound, CT, radioisotope studies, etc.).
	Topic 1.2. Congenital malformations of blood vessels. Traumatic vascular injury.
	Topic 1.3. Acute arterial thrombosis and embolism.
	Topic 1.4. Aneurysms of the aorta and arteries.
	Topic 1.5. Stenosing diseases of the branches of the aorta.
	Topic 1.6. Varicose veins of the lower extremities.
	Topic 1.7. Thrombophlebitis and phlebothrombosis. Pulmonary embolism.
	Topic 1.8. Chronic venous insufficiency. Post-thrombophlebitic syndrome.
	Topic 1.9. Diseases of the lymphatic system.
	Topic 1.10. Endovascular methods for the treatment of diseases of the heart and blood vessels.
	Topic 1.11. Congenital heart defects.
	Topic 1.12. Acquired heart defects.
	Topic 1.13. Ischemic heart disease and its complications.
	Topic 1.14. Pathology of the conduction system of the heart.
	Topic 1.15. Pathology of the pericardium (pericarditis, tamponade, cysts, tumors of the pericardium).
	Topic 1.16. Pathology of the myocardium (myocarditis, cardiomyopathy).
	Topic 1.17. Tumors of the heart.
Section 2 Pediatric Surgery	**Topic 2.1.** Peculiarities of childhood surgery: goals and objectives, history of development.
	Topic 2.2. Anatomical and physiological features of the child's body.
	Topic 2.3. Features of purulent surgical infection in children.
	Topic 2.4. Soft tissue ulcers: phlegmon of newborns, omphalitis, purulent mastitis, pseudofurunculosis.
	Topic 2.5. Acute hematogenous osteomyelitis in children.
	Topic 2.6. Acute purulent destructive pneumonia in children.
	Topic 2.7. Surgical pathology of the lungs in children: congenital malformations of the lungs, bronchiectasis, foreign bodies of the trachea and bronchi.
	Topic 2.8. Acute appendicitis in children.

	Topic 2.9. Peritonitis of newborns and infants. Etiology, diagnosis, treatment.
	Topic 2.10. Acute intestinal obstruction in children (congenital and acquired).
	Topic 2.11. Malformations of newborns.
	Topic 2.12. Esophageal atresia, diaphragmatic hernia, pyloric stenosis, anal atresia.
	Topic 2.13. Inguinal hernia and dropsy of the testicles, varicocele, phimosis, cryptorchidism in children.
	Topic 2.14. Peculiarities of childhood traumatology, trauma of skeletal bones, chest, abdomen and craniocerebral trauma.
Section 3 Abdominal Surgery	**Topic 3.1.** Acute appendicitis
	Topic 3.2. Diseases of the gallbladder.
	Topic 3.3. Diseases of the extrahepatic bile ducts.
	Topic 3.4. Diseases of the pancreas.
	Topic 3.5. Diseases of the liver.
	Topic 3.6. Diseases of the stomach and duodenum.
	Topic 3.7. Diseases of the operated stomach.
	Topic 3.8. Diseases of the intestines.
	Topic 3.9. Acute intestinal obstruction.
	Topic 3.10. Peritonitis.
Section 4 Thoracic Surgery	**Topic 4.1.** General issues of diagnosis and treatment of lung diseases.
	Topic 4.2. Injuries to the chest, trachea, bronchi, lungs and pleura.
	Topic 4.3. Diseases of the chest wall and pleura.
	Topic 4.4. Damage and foreign bodies of the esophagus.
	Topic 4.5. Burns and cicatricial strictures of the esophagus.
	Topic 4.6. Tumors of the esophagus.
	Topic 4.7. Diseases of the trachea.
	Topic 4.8. Benign and malignant tumors of the lung.
	Topic 4.9. Diagnosis and treatment of tumors and cysts of the mediastinum.
	Topic 4.10. Diaphragm diseases.
	Topic 4.11. Malformations, cysts and diverticula of the esophagus.
	Topic 4.12. Neuromuscular diseases of the esophagus.

DEVELOPERS:

Assistant, Department of Hospital Surgery with the Course of Pediatric Surgery		Gitelzon E.A.
Position, Department	Signature	Surname, initials

HEAD OF THE DEPARTMENT:

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Department	Signature	Surname, initials

HEAD OF THE HIGHER EDUCATION PROGRAM:

Head of the Department of General Medical Practice		Sturov N.V.
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Federal State Autonomous Educational Institution of Higher Education
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA
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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Hospital Therapy
Course Workload	Credits and academic hours 10/360
Course Module Title	**Brief Description of the Module Content**
Section 1. Diseases of the circulatory system.	**Topic 1.1** Differential diagnosis of secondary (symptomatic) hypertension. Hypertensive disease.
	Topic 1.2 Differential diagnosis of acute coronary syndrome with ST elevation and without elevation.
	Topic 1.3 Differential diagnosis of myocardial infarction, coronary and non-coronary cardialgias.
	Topic 1.4 Differential diagnosis of heart rhythm and cardiac conduction.
	Topic 1.5 Differential diagnosis of acquired heart defects.
	Topic 1.6 Differential diagnosis for pericarditis.
	Topic 1.7 Differential diagnosis for myocarditis, cardiomyopathies (hypertrophic, dilated, restrictive).
	Topic 1.8 Differential diagnosis for infective endocarditis.
	Topic 1.9 Acute and chronic heart failure, clinical presentation, differential diagnosis, treatment
	Topic 1.10 Atherosclerosis and dyslipidemia
Section 2. Diseases of the respiratory system.	**Topic 2.1** Differential diagnosis for interstitial and infiltrative lung diseases.
	Topic 2.2 Acute bronchitis and chronic obstructive pulmonary disease, bronchial asthma: clinical picture, differential diagnosis, treatment.
	Topic 2.3 Differential diagnosis for lesions of the pleura, mediastinum, and diaphragm.

	Topic 2.4 Differential diagnosis of primary and secondary pulmonary hypertension, diagnosis and treatment in a hospital. Acute and chronic pulmonary heart, differential diagnosis. Differential diagnosis of TEP.
	Topic 2.5 Acute and chronic respiratory failure, differential diagnosis, treatment. Differential diagnosis of acute respiratory distress syndrome. Sleep apnea syndrome.
Section 3. Kidney disease.	**Topic 3.1** Differential diagnosis of pyelonephritis with other infectious and inflammatory diseases.
	Topic 3.2 Differential diagnosis of acute and chronic glomerulonephritis.
	Topic 3.3 Differential diagnosis of nephropathy.
	Topic 3.4 Differential diagnosis for acute kidney injury and chronic kidney disease (CKD).
Section 4. Diseases of blood system	**Topic 4.1** Acute leukemia - clinical picture, differential diagnosis, treatment.
	Topic 4.2 Chronic myeloproliferative diseases - clinical picture, differential diagnosis, treatment.
	Topic 4.3 Chronic lymphoproliferative diseases, Hodgkin's lymphoma - clinical picture, differential diagnosis, treatment.
	Topic 4.4 Paraproteinemic hemoblastosis - clinical picture, differential diagnosis, treatment.
	Topic 4.5 Megaloblastic and aplastic anemias - clinical picture, differential diagnosis, treatment.
	Topic 4.6 Iron deficiency anemia, anemia of chronic disease - clinical picture, differential diagnosis, treatment.
	Topic 4.7 Normochromic normocytic anemia: posthemorrhagic anemia, hereditary and acquired hemolytic anemia, anemia with impaired erythrocyte production - clinic, differential diagnosis, treatment.
	Topic 4.8 Differential diagnosis of arthropathies. Rheumatoid arthritis. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment..
Section 5. Diseases of the joints, systemic diseases of the	**Topic 5.1** Differential diagnosis of arthropathies. Rheumatoid arthritis. Etiology, pathogenesis, clinical picture, diagnosis, differential diagnosis, treatment.

connective tissue.	**Topic 5.2** Systemic connective tissue diseases. Systemic lupus erythematosus, dermatomyositis, systemic scleroderma. Etiology, pathogenesis, clinical picture, diagnosis, differential diagnosis, treatment.
	Topic 5.3 Differential diagnosis for systemic vasculitis. Separate forms of systemic vasculitis. Definition, clinic, diagnosis, differential diagnosis. General principles and methods of treatment of systemic vasculitis.
Section 6. Diseases of the digestive system.	**Topic 6.1** Differential diagnosis of diseases of the esophagus.
	Topic 6.2 Differential diagnosis for symptoms of diseases of the stomach and duodenal ulcer.
	Topic 6.3 Differential diagnosis for symptoms of diseases of the small and large intestines, the syndrome of impaired digestion (maldigestion) and the syndrome of impaired absorption (malabsorption).
	Topic 6.4 Differential diagnosis for diseases of the gallbladder and bile ducts.
	Topic 6.5 Differential diagnosis for diffuse liver lesions
	Topic 6.6 Differential diagnosis for jaundice and focal liver lesions.
	Topic 6.7 Differential diagnosis in liver cirrhosis, ascites, portal hypertension, encephalopathy, spontaneous bacterial peritonitis, hepatorenal syndrome.
	Topic 6.8 Differential diagnosis for diseases of the pancreas.
Section 7. Clinical laboratory diagnostics	**Topic 7.1** Clinical laboratory diagnostics – history, definition and basic concepts. Directions of development of clinical laboratory diagnostics. Informativeness of laboratory studies. Variation of laboratory results. The concept of reference intervals. Critical and threshold values of laboratory parameters. Sensitivity and specificity of laboratory tests. Stages of laboratory research – preanalytical, analytical. post-analytical. Quality control of laboratory tests.
Section 8. Laboratory genetics	**Topic 8.1** New laboratory technologies in modern CDL – chromatography, mass spectrometry, genetic laboratory research. Organization of hereditary material. Changes in hereditary material, types of mutations. Methods of investigation of disorders of hereditary material. Cytogenetic methods. Karyotyping. FISH-hybridization. Molecular genetic methods. Polymerase chain reaction, principle of the method, fields of application. Sequencing. Areas of application of genetic diagnostic methods. Types of

	genetically determined diseases – chromosomal, monogenic, multifactorial. Genetic tests in oncology. Pharmacogenetics.

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Hygiene
Course Workload	6 credits (216 academic hours)
Course contents	
Course Module Title	Brief Description of the Module Content
Module 1. Theoretical and methodological the lationsthe discipline "Hygiene". and Public Health Environment.	Hygiene as a science and subject of teaching; sanitation; organization, forms and stages of state sanitary and antiepidemic supervision. Hygienic regulation. Sanitary legislation. Methodology of hygienic regulation. Types of standards. Problems of rationing of jointly acting factors.
Module 2. Hygiene of nutrition.	Rational nutrition. Hygienic nutritional standards for different population groups. Dietary and medicalpreventive nutrition. The principles of diets and rations. Sanitary and hygienic expertise of products and essessment of food quality category. Sanitary and hygienic expertise of meat. Sanitary and hygienic expertise of fish. Sanitary and hygienic expertise of products of milk. Nutritional and biological value and signs of spoilage of vegetable products (bread). Preservation methods and essessment of canned food quality. Food poisoning: classification, clinic, methods of prevention. Hygiene requirements for public catering enterprises. The principle of flow of raw materials and products. Personal hygiene and medical control of the staff.
Module 3. Hygiene of populated areas.	Hygiene of human settlements and dwellings. Sanitary and hygienic assessment of the rural homestead project. Sanitary and hygienic expertise of microclimate of residential and industrial premises. Climate and acclimatisation. Sanitary and hygienic assessment of the

	microclimate of the classroom. Hygiene of the air. The chemical composition of atmospheric air and its hygienic significance. Atmospheric and indoor air pollution. Prevention of urban air pollution. Determination and sanitary-hygienic estimation of the carbon dioxide content in the premises. Assessment of the dustiness and microbial pollution of the air. Solar radiation and its hygienic significance. Hygiene requirements for insolation and lighting of the premises. Determination and sanitaryhygienic assessment of natural and artificial lighting of the premises.
Module 4. Radiation hygiene.	Radiometry. Radioactivity, natural radiation background. Sanitary and hygienic assessment of contamination of water, bread, washouts. Dosimetry. Doses of ionizing radiation (exposure, absorption, equivalent). Biological effects and standarts of exposure of different categories of population. Protection against external ionising radiation (principles and calculation). Equipment rules for industrial premises. Use of protective equipment against sources of ionizing radiation.
Module 5. Communal hygiene.	Hygiene of water and water supply of populated areas. Significance of water for public health. Surface and underground water sources. Waterworks. Disinfection of wells and kaptazhy. Water supply systems. Sanitary and hygienic requirements for potable water. Organoleptic essessment of water. Self-purification of water reservoirs. Zone of sanitary protection of water supply sources. Water consumption. Scheme of household and potable water supply. Sanitary and hygienic requirements for potable water - indicators of organic water pollution, generalized, microbiological indicators, MPC of chemicals, radiation safety of potable water. Methods for cleaning, disinfecting and improving the quality of potable water with a centralized water supply system. Methods, comparison of their effectiveness and scope. Organization of water supply and sewerage in a large metropolis (Moscow). Soil hygiene in populated areas. Epidemiological, sanitary and chemical significance of the soil. Biogeochemical provinces. endemic diseases.
	Hygienic assessment of soil quality. Sanitary cleaning of populated areas. Cleaning systems, methods of neutralization and disposal of solid and liquid waste.

Module 6. Occupational hygiene.	Occupational health, occupational hazards. Occupational diseases of workers. Harmful factors of the working environment and labor organization. Physiological bases of the labor process. Chemical environmental factors and their impact on the health of workers. Fundamentals, principles of hygienic regulation in industrial toxicology. Physical environmental factors (noise, ultra- and infrasound, laser and electromagnetic radiation) and their hygienic regulation. Classification of dust, its effect on the body. Classification of pneumoconiosis. Prevention. Physical environmental factors (vibration, microclimate). Hygienic regulation. Hygienic assessment of ventilation of industrial premises.
Module 7. Hygiene of children and adolescents.	Hygiene of children and adolescents. Assessment of physical development (biological age). Health groups of children and adolescents. Assessment of physical development (methods for assessing individual and group physical development). Hygienic requirements for children's preschool educational institutions. Hardening methods. Hygienic requirements for school educational institutions. Sanitary and hygienic requirements for lighting, teaching aids, furniture and working hours of school educational institutions.
Module 8. Hygiene of Medical Treatment-prophylactic Facilities.	Hospital hygiene. Hygienic principles of organization of work and planning of hospitals, features of structural and planning solutions. Requirements for the placement of hospitals, admission department. Prevention of nosocomial infections. Hospital hygiene. Hygiene requirements for hospital departments.

Developers:

A.V. Drozhzhina

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COURSE DESCRIPTION

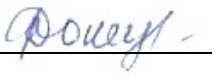
31.05.01 General medicine

field of studies / specialty code and title

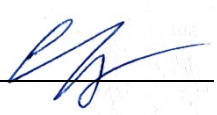
Course Title	Immunology
Course Workload	Credits and academic hours - 2 credits (72 hours)
Course contents	
Course Module Title	**Brief Description of the Module Content**
Basic immunology	The subject and tasks of immunology. The definition of immunity. Theories of immunity. Historical milestones in the development of immunology. The structure and function of the immune system. Ontogenesis and Phylogeny. Central and secondary immune organs. Types of immunity. Immunopoiesis. Stem cell. Innate immunity. Receptors of recognition “non-self”. Cells of the innate immunity. Phagocytosis. Adhesion molecule. NK-cells. Humoral factors of the innate immunity. Complement system. Antigens and antibodies. The structure and main properties of antigens. The structure and main properties of antibodies. Classification of antigens. Immunoglobulin classes. Interaction between antigen and antibody. Major histocompatibility complex (MHC). HLA I and II. Antigen-presenting cells. Processing and presentation of antigen. Apoptosis. T- и B-lymphocytes. Subpopulations. Maturation and differentiation. TCR and BCR. Immune response. Types of immune response. Effector mechanism of immunity. Mucosal immunity. Humoral factors of immune reactions. Classification and properties of cytokines. Receptors to cytokines.
Clinical immunology	Immune diseases. Classification of immunopathological reactions according to Gell and Coombs. Allergy. Allergens. Types of hypersensitivity reactions. The main principles of diagnosis and treatment allergic diseases. Immune tolerance. Transplantation immunity. Autoimmune disease. Primary and secondary immunodefiencies. Classification. Diagnosis and treatment. Infection immunity.Antitumor immunity. Effectors mechanisms of antitumor immunity. Immunoproliferative

	diseases. Principles of immunodiagnostics and immunotherapy of tumors. Estimation methods of immunity. Immune biotechnology. Monoclonal antibodies. The main principles of immunotherapy and vaccination.

DEVELOPERS:

Professor of the Immunology department		E.A. Levkova
Professor of the Immunology department		A.D. Donetskova

HEAD of the Department:

of Immunology		O.G. Elisyutina

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course title	Infectious diseases
Total course workload	Credits and academic hours - 9 credits (324 academic hours)
Course contents	
Course model title	**Brief description of the module content.**
1.Speciality introduction	Study of the general pathology of infectious diseases. Organization of medical care in infectious diseases
2.Air borne infectious diseases	The etiology, pathogenesis, symptoms, diagnostics, treatment and prophylaxis of the following diseases are studied: Influenza and other acute respiratory viral infections. Meningococcal infection. Diphtheria. Infectious mononucleosis. Legionellosis. Mycoplasma infection. Herpetic infection.
3.Gastro-intestinal infectious disease	The etiology, pathogenesis, symptoms, diagnostics, treatment and prophylaxis of the following diseases are studied: Typhoid fever, paratyphoid A, B. Dysentery. Cholera. Viral gastroenteritis. Amoebiasis. Food poisoning. Salmonellosis. Botulism Pseudotuberculosis. Yersiniosis. Enterovirus infections. Viral hepatitis A. Viral hepatitis E
4.Blood borne infectious diseases	The etiology, pathogenesis, clinical symptoms, diagnostics, treatment and prophylaxis of the following diseases are studied: Rickettsiosis. Typhoid fever is Brill-Zinsser's disease. Endemic (flea) typhus. System tick-borne borreliosis (Lyme disease). Malaria. Tick-borne typhoid fever
5.Integumentary manifestations of infectious	The etiology, pathogenesis, clinical symptoms,

diseases	diagnostics, treatment and prophylaxis of the following diseases are studied: Viral hepatitis B. Viral hepatitis D. Viral hepatitis C. Viral hepatitis G. HIV infection. Erysipelas
6.Zoonoses.	The etiology, pathogenesis, clinical symptoms, diagnostics, treatment and prophylaxis of the following diseases are studied: Plague. Tularemia. Hemorrhagic fevers. Anthrax. Tetanus. Brucellosis. Chlamydial infection. Ornithosis. Ku fever (Coxiosis) Leptospirosis. Protozoa. Visceral leishmaniasis. Protozoa. Trypanosomiasis.
7.Syndrome diagnosis. Emergency conditions in infectious diseases.	In this section, the objectives is aimed at differential diagnosis of both infectious and non-infectious diseases: Diarrheal syndrome. Meningeal syndrome. Respiratory diseases. Exanthems and enanthems. Rashes. Emergency conditions: Hypovolemic shock. Infectious-toxic shock. Meningitis. Cerebral edema
8.Helminthiases	The etiology, pathogenesis, clinical symptoms, diagnostics, treatment and prophylaxis of the following diseases are studied: Ascariasis. Trichocephalus. Enterobiosis. Ankylostomidosis. Strongyloidosis. Trichinosis. Filariatosis. Cestodoza.

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2023-2024

Course Title	***Introduction to Nutrition science***
Course Workload	Credits and academic hours – **2/72 hours**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Introduction to Nutritional science	Value nutrition in human life. Nutrition, food products and nutrients.
Energy metabolism. Energy requirements.	Energy expenditure of the body and energy requirements. Food as a source of energy. Energy balance. Change of body weight. Energy balance and obesity.
Macronutrients. Micronutrients.	Proteins. Lipids. Carbohydrates. Water. The structure, classification, properties, digestion, absorption, transportation and nutritional value of macronutrients.
	Vitamins. Chemical elements. Amino acids. The general physiological role of vitamins, chemical elements and amino acids. Prevention of loss of vitamins for cooking and storing food. Food is the source of minerals. Prevention of micronutrient deficiencies from food.
Non-nutrient bioactive substances in food.	Minor components of food. Protective components of food products. Non-nutrient and some other components of food that have an adverse effect on the body. Chemical changes in basic nutrients during cooking.
Nutritional value of food products. Nutrition and human health.	Nutritional, biological values and dietary properties of the main groups of food products (home-cooked food and catering).
	Advanced approaches, principles and recommendations. Diseases associated with malnutrition. The link between food, nutrition and non-communicable diseases**.**

Developers:

A.A. Skalny

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I.V. Radysh

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COURSE DESCRIPTION

31.05.01 General Medicine
field of studies / speciality code and title

Course Title	Latin language
Course Workload	Credits and academic hours **2/72**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Anatomical and histological terminology	Topic 1.1. Latin alphabet. Diphthongs and digraphs. Rules for reading and stress placement
	Topic 1.2. System of Latin nominal declension. The rule for determining the declension of nouns. Dictionary form of nouns.
	Topic 1.3. Nouns of the first declension. Non-agreed attributes. The structure of phrases consisting of nouns.
	Topic 1.4. Nouns of the second declension.
	Topic 1.5. The first and second declension of adjectives. Dictionary form of adjectives. Agreed attributes. The structure of phrases consisting of nouns and adjectives.
	Topic 1.6. Degrees of comparison of adjectives. Features of their use in medical terminology.
	Topic 1.7. Prefixation.
	Topic 1.8. Nouns of the third declension. Types of the third of declension: consonant, mixed and vowel.
	Topic 1.9. Nouns of the fourth declension.
	Topic 1.10. Nouns of the fifth declension.
Module 2. Clinical terminology	Topic 2.1. Prefixation and suffixation as methods of word formation in the Latin language.
	Topic 2.2. Introduction to clinical terminology. Classification of clinical terms.
	Topic 2.3. Basics. Greco-Latin doublets. Single term elements.
	Topic 2.4. Greek term elements denoting body parts, organs and tissues.

	Topic 2.5. Greek term elements denoting therapeutic and surgical techniques
	Topic 2.6. Greek term elements denoting functional and pathological processes and conditions.
	Topic 2.7. Greek term elements denoting various physical properties and qualities.
Module 3. Pharmaceutical Terminology	Topic 3.1. Frequency segments in the names of medicines.

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Law science
Course Workload	Credits and academic hours: 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Introduction to the legal theory.	1.1. Concept and characteristics of law. Law in the system of social norms. 1.2. Sources and principles of law. Legal norm (rule) and its structure. 1.3. Legal relations: concept and characteristics. Legal facts. Offense and legal liability. 1.4. Lawmaking: concept and types. Systematization of law. 1.5. System of law. National and international law. 1.6. Human rights and freedoms. Classification of human rights. Mechanisms for the protection of human rights.
Module 2. Introduction to the political theory.	2.1. Origin of the state. The concept and characteristics of the state. 2.2. Functions and mechanism of the state. 2.3. Form of state: form of government, form of state structure, political regime.
Module 3. Fundamentals of constitutional law.	3.1. The concept of constitutional law as a branch of law. Subject and method of constitutional law. 3.2. Sources of constitutional law. 3.3. Basic institutions of constitutional law.
Module 4. Fundamentals of administrative law.	4.1. The concept of administrative law as a branch of law. Subject and method of administrative law. 4.2. Sources of administrative law. 4.3. Basic institutions of administrative law. 4.4. The concept of administrative offense and administrative liability.
Module 5. Fundamentals of civil law.	5.1. The concept of civil law as a branch of law. Subject and method of civil law. 5.2. Sources of civil law. Principles of civil law. 5.3. Civil relations. Individuals and legal entities as subjects of civil law. Objects of civil rights.

	5.4. The concept and content of rights in rem. 5.5. The concept of a civil transaction. The concept and content of a civil contract. 5.6. Terms in civil law. Limitation period. 5.7. Concept and types of obligations. Civil liability. 5.8. Basics of inheritance law.
Module 6. Fundamentals of criminal law.	6.1. The concept of criminal law as a branch of law. Subject and method of criminal law. 6.2. Sources of criminal law. The action of criminal law in time, in space and to persons 6.3. Crime: concept and general characteristics. Corpus delicti. 6.4. The concept and characteristics of criminal liability. Circumstances excluding the criminality of a deed. 6.5. Concept and types of criminal penalties.
Module 7. Fundamentals of labor law.	7.1. The concept of labor law as a branch of law. Subject and method of labor law. 7.2. Sources of labor law. 7.3. Employment contract: concept, content and types. 7.4. Working time and rest time. The concept of remuneration. 7.5. Labor discipline and work schedule. 7.6. Labor disputes: concept and types.
Module 8. Fundamentals of family law.	8.1. The concept of family law as a branch of law. Subject and method of family law. 8.2. Sources of family law. Basic institutions of family law. 8.3. Concept, signs, conditions and procedure for marriage. Nullity of marriage. Divorce. 8.4. Rights and obligations of spouses. Rights of minors. 8.5. Alimony obligations.
Module 9. Fundamentals of legal regulation of medical activities.	9.1. Basic issues of regulation of medical law. Medical legal relations. 9.2. Sources of medical law. 9.3. Subjects of medical legal relations. 9.4. Responsibility of medical workers.

DEVELOPERS:

Associate Professor of the Department of Theory of Law and State		Sergey B. Zinkovskiy
position, department	signature	name and surname

HEAD
OF EDUCATIONAL DEPARTMENT:

Head of the Department of Theory of Law and State		Andrei A. Klishas
position, department	signature	name and surname

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2023-2024

Course Title	**MATHEMATICS**
Course Workload	Credits and academic hours – 2/72
Course contents	
Course Module Title	Brief Description of the Module Content
SETS	Set notation, empty set, subset, The Real Numbers, Universal set, complement, Relationship between sets: Union, Intersection. Venn diagrams
SEQUENCES	Description of sequences, Arithmetic sequence, Geometric sequence, Convergent and divergent sequence, Limits of Special Sequences
SERIES	Partial sum, Arithmetic series, Geometrics series, Sum of an infinite sequence
SYSTEM OF EQUATIONS	Independent Equations, Dependent Equations, Inconsistent Equations, Addition method, Substitution method
MATRICES	Square matrix, diagonal matrix, identity matrix Matrix operations: Addition, Subtraction, multiplication by a number, Multiplication. The inverse matrix. Determinant. Singular matrix. Application of matrices to solving simultaneous equations.
DERIVED FUNCTION	Definition of derivative as slope or the rate of change, Rules of differentiation, Derivatives of trigonometric functions, Derivatives of inverse trigonometric functions, Derivatives of logarithmic functions, Derivatives of exponential functions
INTEGRATION	Definition of integral as area or inverse derivative, Methods of algebraic integration, Tables of integrals, Determination of areas by integration
DIFFERENTIAL EQUATIONS	Solution of differential equations By direct integration By separating the variables

Developers:

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HEAD OF EDUCATIONAL DEPARTMENT V.L. Stolyar

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Federal State Autonomous Educational Institution of Higher Education
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA named after Patrice Lumumba RUDN University
Institute of Medicine

educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2024

Course Title	Maxillofacial Surgery
Course Workload	Credits and academic hours -2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1	Anatomy and topographical anatomy of cellular spaces of themaxillofacial region. Clinical characteristics of inflammation. Pathoanatomic and pathophysiological pictureof inflammation. Definition of abscess and phlegmon. Ways of spreading purulent infection. Method of treatment of purulent wounds of the maxillofacial region. Principles of drug treatment of acute inflammatory diseases of themaxillofacial region.
Module 2	Classification of facial skull fractures. Etiology, pathogenesis, assessment of the severity of damage, general posttraumatic disorders, taking into account age and concomitant pathologies. Features of emergency care for fractures of the upper jaw, zygomatic bone, nasal bones. Prevention, diagnosis and prognosis of post-traumatic complications, the choice of therapeutic tactics, interaction with doctors of related specialties.
Module 3	Classification of fractures of the lower jaw, the mechanisms of their occurrence. Clinic, diagnosis and treatment of patients.

Module 4	Classification of tumors of the maxillofacial
	region. Diagnosis, features of the course and treatment of benign and malignant tumors of the maxillofacial area. Emergency and planned care for patients with tumors of the maxillofacial region. Differential diagnosis of tumors with similar pathological processes. A treatment plan for various tumor processes.
Module 5	Methods of research of salivary glands, methods of its assessment. Classification, clinical picture and treatment of sialoadenitis, salivary stone disease, tumor lesions of the salivary glands. The technique of diagnostic puncture of the glands, removal of stones from the ducts of the salivary glands, extirpation of the submandibular and parotid salivary glands, analgorithm for treating diseases depending on etiopathogenesis.
Module 6	Causes and types of defects of the maxillofacial region. Principles of planning and conducting reconstructive operations in the maxillofacial region. Indications for various types of reconstructive operations. Deontological methods of behavior with patients with defects and deformities of the tissues of the maxillofacial region. Features of the structure of the maxillofacial region and the basic principles of planning restorative treatment, the main components of restorative treatment, types of reconstructive operations and features of their implementation in the maxillofacial region, features of medical rehabilitation of patients with defects and deformities of the maxillofacial region.

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Medical criminalistics
Course Workload	1/36
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Estimating the time of death. Biophysical methods for estimation of the time of death.	**Topic 1.1**. Introduction to thanatology: the concept of death, the process of dying, probable and reliable signs of death. Supravital reactions and tissue survivability. Methods of time of death estimation. Early cadaveric changes. Late cadaveric changes.
	Topic 1.2. Modern biophysical methods for estimation of the time of death. Principles of biophysical methods for estimation of time of death: the method of electronic paramagnetic resonance, chemiluminescent method.
	Topic 1.3. Introduction to the research work of the department: «The use of the method of fluorescence spectroscopy in situ for estimating the time of death».
Module 2. Forensic medical examination of poisoning with narcotic and non-narcotic drugs.	**Topic 2.1.** Poisoning with sibutramine, methadone, tetrahydrocannabinol derivatives, ethanol. Clinical and morphological signs of poisoning with sibutramine, methadone, tetrahydrocannabinol derivatives, ethanol.
	Topic 2.2. Basic principles of screening of psychotropic and narcotic drugs in saliva, blood, urine, hair of living persons. Basic principles of screening and quantitative determination of narcotic and psychotropic drugs in blood, urine, internal organs, nails and hair of a corpse.
	Topic 2.3. Preparation of samples for forensic chemical analysis. The main methods of forensic chemical analysis: chromatography in a thin layer of sorbent, gas chromatography, liquid chromatography, high-performance liquid chromatography.

Module 3. Fundamentals of forensic osteology.	**Topic 3.1.** The concepts of group and individualizing personality traits.
	Topic 3.2. Methods of establishing sex, age, race, body type, body length, signs of congenital and acquired diseases, injuries from skeletal remains.
	Topic 3.3. Cranio- and osteometry techniques (using skull, teeth and postcranial skeleton). Interpretation of results. Methods of statistical data processing using the StatSoft Statistica software.

Developers:

Dmitry V. Sundukov

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Asya R. Bashirova

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2024

Course Title	**Medical Elementology**
Course Workload	Credits and academic hours **- 2 / 72**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Introduction to Medical Elementology	1. Subject of medical elementology. Biological classification of chemical elements. Concept of bioelements. 2. Biogeochemistry and factors affecting the elemental status of population. 3. New paradigm of nutrition and therapy.
General elementology	4. Factors affecting the homeostasis of trace elements. Interactions between trace elements. 5. Elemental status of humans. Personalized assessment of human elemental status.

Special elementology	6. Essential trace elements (iron, zinc, copper, manganese, chromium, cobalt, molybdenum, selenium, iodine): role in the body; absorption; excretion; deficiency and toxicity; associated diseases; sources. 7. Conditionally essential trace elements (lithium, strontium, vanadium, nickel, tin, silicon, fluorine): role in the body; absorption; excretion; deficiency and toxicity; associated diseases; sources. 8. Toxic and potentially toxic trace elements (arsenic, aluminum, lead, cadmium, mercury): role in the body; absorption; excretion; toxicity; associated diseases; sources. 9. Macroelements (potassium, sodium, calcium, magnesium, phosphorus, sulfur, chlorine): role
	in the body; absorption; excretion; deficiency and excess; toxicity; associated diseases; sources. 10. Elements-organogens (carbon, oxygen, nitrogen, hydrogen): role in the body; absorption; excretion; associated diseases; sources.
Role of chemical elements in diagnostics and treatment of human diseases	11. Imbalances of chemical elements at various diseases: diseases of the skin and its appendages, diseases of the musculoskeletal, broncho-pulmonary, immune, endocrine, cardiovascular systems, childhood diseases, trace elements in oncology and hematology.

Developers:

A.A. Skalny

A.V. Skalny

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I.V. Radysh

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COURSE DESCRIPTION

31.05.01 General Medicine
field of studies / speciality code and title

Course Title	Medical Enzymology
Course Workload	Credits and academic hours - 2 credits, 72 academic hours
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Basic aspects of the enzyme used in medicine.	Medical enzymology. History of enzymology in the USSR/Russia. Basic aspects of the enzyme used in medicine. Mechanisms of enzymatic catalysis and regulation of enzyme activity. Engineering enzymology.
Module 2. Enzyme pathology.	Inborn errors of metabolism. General principles of diagnosis and treatment of congenital enzymopathies. The concept of orphan diseases. Congenital disorders of carbohydrate metabolism. Glycogenoses. Disorders of fructose and galactose metabolism. Hemolytic anemia (deficiency of glucose-6-phosphate dehydrogenase, pyruvate kinase). Lysosomal storage diseases. Congenital disorders of amino acid metabolism. Congenital disorders of the metabolism of steroid compounds and heme breakdown products. Disorders of ornithine cycle enzymes: clinical and biochemical correlations.
Module 3. Enzyme therapy	Enzymes for replacement therapy in pancreatic insufficiency. Thrombolytic enzymes and blood clotting factors. Enzymes for cancer therapy. Target enzymes for anti-inflammatory drugs. Target enzymes for the treatment of arterial hypertension and atherosclerosis. Tyrosine kinases regulating tumor progression as targets for chemotherapy of malignant diseases.

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Name of the discipline	"Medical informatics"
Scope of discipline, WE/ ac.h.	2/72
CONTENT OF DISCIPLINE	
Sections	**Themes**
Section 1. Introduction to medical informatics.	Topic 1.1. Basic concepts of medical informatics.
	Topic 1.2. Medical informatics hardware.
	Topic 1.3. Software tools for implementing information processes.
Section 2. Technology for processing medical data using text processors.	Topic 2.1. Introduction to word processors Microsoft Word, Open Office Writer .
	Topic 2.2. Complex document formatting, special functions.
	Topic 2.3. Working with tables in a text processor.
Section 3. Technologies for processing medical data using spreadsheet processors.	Topic 3.1. Introduction to spreadsheet processors Microsoft Excel, Open Office Calc. Visualization of medical data in a spreadsheet processor.
	Topic 3.2. Using mathematical functions of Microsoft Excel, Open Office Calc .
	Topic 3.3. Point and interval estimates of distribution parameters. Calculation in MS Excel
Section 4. Technologies for storing and processing medical data using Database Management Systems.	Topic 4.1. Introduction to Microsoft Access and Open Office Base databases.
	Topic 4.2. Working in a DBMS with medical data.
Section 5. Network technologies Computer networks in medicine	Topic 5.1. Network technologies
	Topic 5.2. Internal electronic resources of RUDN University.
Section 6. Medical information systems (MIS)	Topic 6.1. Introduction to MIS.
	Topic 6.2. Information model of the diagnostic and treatment process.
Section 7. Application of probability theory to process the results of medical and biological experiments.	Topic 7.1. Random events. Operations on random events.
	Topic 7.2. The probability of a random event.
	Topic 7.3. Basic formulas of probability theory.
	Topic 7.4 Repeated independent tests
Section 8. Fundamentals of statistical analysis of biomedical data.	Topic 8.1. Basic concepts of evidence-based medicine.
	Topic 8.2. Discrete and continuous random variables, numerical characteristics of random variables. Variation series
	Topic 8.3. Numerical characteristics of random variables. Basic laws of distribution
	Topic 8.4. Statistical hypotheses. Relationship analysis.

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Medical rehabilitation
Course Workload	Credits and academic hours – 3/108
Course contents	
Course Module Title	**Brief Description of the Module Content**
Section 1. Organizational and methodological foundations of rehabilitation	Definition of the concept of rehabilitation. Concepts of disorders, disability, and social insufficiency. Types of rehabilitation, their goals and objectives. Medical rehabilitation. Habilitation. Rehabilitation program. Rehabilitation potential. Rehabilitation prognosis. Principles of organization of the rehabilitation process. Stages of medical rehabilitation. Organizational approaches and staffing of the rehabilitation process".
Section 2 Medical aspects of disability	Concepts of disabled person, disability. The concept of "disability". Primary, secondary, and tertiary physical disabilities. Classification of disability. Disability groups. Features (risk groups) of persons with disabilities.
Section 3 Features of medical rehabilitation of patients of different age groups	Children's rehabilitation. Current trends and assessments of children's health. Features of the child's body that must be taken into account when organizing and conducting the rehabilitation process. The main categories of vital activity of the body, which are described in the medical and social expertise of individuals, under 18 years of age.Anatomophysiological and psychological features of patients of older age groups. Problems of the elderly and senile age. Types of personality adaptation to old age. Special feature of rehabilitation of patients of older

Section 4 Means and methods of medical rehabilitation	Means of medical rehabilitation. Medical support of the rehabilitation process. Means of psychological rehabilitation. Technical means of rehabilitation. Reconstructive surgery. Physical therapy. The concept of physical therapy. External physical factors used in physical therapy. Natural and preformed healing factors. Mechanism of therapeutic action of physiotherapy. Common contraindications. Safety precautions when working in the physiotherapy
	department (office). Classification, types and forms of physical therapy. Classification of motor modes. Features and evaluation of functional examination of patients before and after exercise therapy in different motor modes. Ergotherapy Basics of medical massage. Basic techniques. Indications and contraindications. Fundamentals of reflexology. Mechanism of therapeutic action. Methods of reflexology. The technique of acupressure. Indications and contraindications. Features of reflexotherapy in the elderly, senile age and long-livers. Mechanism of therapeutic action and methods of hirudotherapy. Indications and contraindications. Technique of hirudotherapy. Possible complications. Mechanism of therapeutic action of herbal medicine. Features of the method of herbal medicine. Indications and contraindications. Mechanism of therapeutic action of apitherapy. Indications, contraindications. The mechanism of therapeutic action of aromatherapy. Methods of aromatherapy. Indications and contraindications. Climatotherapy. Factors of climate therapy. Climates. Climatic resorts. Aerotherapy. Mechanism of therapeutic action of aerotherapy. Methods. Heliotherapy. The mechanism of therapeutic action of heliotherapy. Forms of heliotherapy sessions. Indications and contraindications. Thalassotherapy. Mechanism of therapeutic action of thalassotherapy. The concept of "cold load". Indications and contraindications for thalassotherapy. Speleotherapy. Microclimatic features of natural caves and salt mines. The mechanism of therapeutic action of speleotherapy. Indications and contraindications. Peloidotherapy. Classification of peloids. The mechanism of therapeutic action of peloid therapy. Methods. Indications and contraindications. Balneotherapy. Composition and classification of the miner.mineral waters. Mechanism of action balneotherapy, Types of balneotherapy. Indications and contraindications. Rules for receiving mineral waters.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	**Methodology of teaching Russian as a foreign language**
Course Workload	Credits and academic hours **2/72**
Course Contents	
Sections	**Topics**
Section 1. General questions of methodology of teaching RFL	Topic 1.1 The role and importance of the Russian language in the modern world. Topic 1.2. Methods of teaching Russian as a foreign language, communication psychology and linguistics. Topic 1.3. The purpose, principles, methods of teaching trials. Topic 1.4. Features of teaching trials at the initial stage (A1-A2): purposes and content.
Section 2. Teaching grammar	Topic 2.1. The role of grammar in the process of achieving the major goals of practical training trials. Selection language material. Using speech samples. Types of exercises. Topic 2.2. The noun. Gender, number, animation and case. The connection with the native language. Topic 2.3. prepositional-case system of Russian language. Meaning cases. Principles

	of approach to the study and sequence of study of prepositional-case system. Difficulties in the assimilation of the case system of Russian language. Topic 2.4. Verbal system. View-time subsystem. Conjugation. Classes of verbs. Verbal notebook. Topic 2.5. Verbs of movement: a sequence of learning difficulties. Indirect meanings of verbs of motion.
Section 3. Teaching vocabulary	Topic 3.1. Work on vocabulary. Lexical minimum. Types of lexical exercises. Topic 3.2. Methods of semantization of new words. Difficulties in the use of words that are similar in meaning.
Section 4. Teaching phonetics	Topic 4.1. The subject and the meaning of phonetics, discrete and general phonetics, theoretical and practical phonetics. General principles of methodology of teaching pronunciation. Topic 4.2. Units of phonetics. Sounds and letters. Russian alphabet. Phonetic transcription. Work on pronunciation. Topic 4.3. Methods of producing and correction of Russian sounds. Topic 4.4. The sound system of the Russian language. Vowel sounds, articulation base reduction. Errors in pronunciation of vowels. Eliminating accent. Topic 4.5. The sound system of the Russian language. Consonants. Location and method of formation. Voiced / voiceless, hard / soft consonants. Methods of producing consonants. Errors in pronunciation of consonants, the elimination of an accent. Topic 4.6. The pronunciation of the word. Phonetic structure of words. Typical phonetic errors and methods to address them. Topic 4.7. work on intonation. Characteristics of intonation structures (construction, use). Possible mistakes.
Section 5. Teaching types of speech activity	Topic 5.1. Types of speech activity. Objectives and content of teaching speaking. speaking mechanisms. Teaching monologue and

	dialogue. Exercise for teaching speaking, examination. Topic 5.2. Types of speech activity. Teaching listening skills and mechanisms.The complexity of the exercises. Errors in teaching listening. Topic 5.3. Types of speech activity. Objectives and content of teaching reading. The requirements for academic text at an early stage. Work on the literary text. Topic 5.4. Types of speech activity. writing training: characteristics, mechanisms, exercises on writing techniques.
Section 6. Organization of examinations and independent work	Topic 6.1. Functions of examinations. Topic 6.2. Examinations (tests on vocabulary and grammar, by listening tests, reading tests, writing tests, oral tests). Topic 6.3. Peculiarities of independent work in the training trials.
Section 7. Organization of the education process	Topic 7.1. Lesson as a structural unit of the learning process Topic 7.2. lesson plans: the lesson step by step, the goal of learning activities, methods and means of training.

Developers:

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Institute of Medicine

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2024

Course Title	Microbiology
Course Workload	Credits and academic hours – 7/252
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 The subject and objectives of Microbiology and Virology, their importancein medical practice.	Microbe as a living system. Morphology and Structure of microorganisms. Principles of classification. Microscopic techniques.
Module 2 Physiology of microorganisms.	Growth and reproduction. Aerobic and anaerobic bacteria. An enzymatic activity of the microorganisms.
Module 3 Genetics of microorganisms	Types of variability, exchange of genetic information in microbes.
Module 4 General Virology	The structure of viruses, the interaction of viruses with cells, thereproduction of viruses. Bacteriophages.
Module 5 The relationship of microbial populations in thebody.	Synergy and antagonism. Antibiotics. The main groups of antibiotics, the mechanism of their action. Antibiotic resistance andways to overcome it.
Module 6 The doctrine of infection.	Dynamics of the infectious process, types of infections.
Module 7 Pathogenic and residentcocci.	Staphylococci, streptococci. Causative agents of gonorrhea andmeningococcal infection.
Module 8 Causative agents of respiratory infections.	Causative agent of diphtheria. The causative agents of whoopingcough and parapertussis.
Module 9 Pathogenic mycobacteria.	The causative agents of tuberculosis and leprosy.

Module 10 Pathogenic and residentanaerobic bacteria.	Causative agents of gas gangrene, tetanus and botulism. Do not spores forming anaerobes that are involved in the pathology of theoral cavity.
Module 11 The causative agents ofzoonotic diseases	The causative agents of zoonotic diseases: plague, tularemia,anthrax and brucellosis.
Module 12 The causative agents ofintestinal infections.	Typhoid fever, dysentery, salmonellosis, cholera, escherichiosis.Compylobacter and helicobacter.
Module 13 Agents of spirochetosis.	Syphilis. Borreliosis and Lyme diseases, Leptospirosis,
Module 14 Pathogenic Rickettsia andchlamydia.	Causative Agents of epidemic typhoid fever, Q- fever and otherrickettsioses. Causative agents of chlamydia.
Module 15 Protozoal infection	The causative agents of amoebiasis, balantidiasis, trypanosomiasis,leishmania and malaria Classification of mycoses. Dermatomycosis. Candidiasis,pneumocytosis Polio, influenza, herpes, HIV and AIDS. Hepatitis. Viruses of hemorrhagic fevers
Module 16 Mycotic infection	Causative Agents of epidemic typhoid fever, Q- fever and otherrickettsioses. Causative agents of chlamydia.
Module 17 Viral infections	The causative agents of amoebiasis, balantidiasis, trypanosomiasis,leishmania and malaria

Developers:

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COURSE DESCRIPTION

31.05.03 Dentistry

field of studies / speciality code and title

Course Title	Molecular Genetics in practical Biology and Medicine
Course Workload	Credits / academic hours - 2 / 72
Course contents	
Course module title	**Course module contents (topics)**
Module 1 Introduction to Molecular Genetics	Topic 1.1. History of Molecular Genetics. Important trends and advances in Molecular Genetics
Module 2 Transfer of genetic material in prokaryotes	Topic 2.1. Conjugation. Transformation. Transduction
Module 3 Polymerase chain reaction	Topic 3.1. Polymerase chain reaction. Types of PCR. Detection of amplified products
Module 4 Genetic engineering. Hybridization methods	Topic 4.1. Genetic engineering. Vectors. Restriction Enzyme Digest Analysis. Hybridization methods
Module 5 DNA sequencing	Topic 5.1. History of the method. DNA sequencing techniques and their application
Module 6 Molecular cytogenetic methods	Topic 6.1. Fluorescence in situ hybridization (FISH). Comparative genomic hybridization (CGH)
Module 7 Stem cells and genome reprogramming	Topic 7.1. Types of stem cells and their characteristics. Induced pluripotent stem cells. Nuclear reprogramming technologies
Module 8 Genome editing	Topic 8.1. Genome-editing technologies and their application
Module 9 Methods of epigenetic analysis	Topic 9.1. Introduction to Epigenetics. Factors influencing the epigenotype. Methods of epigenetic analysis

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	**Neurology, Medical Genetics, Neurosurgery**
Course Contents	
Course Workload	Credits and academic hours – 6/216
Course Module Title	**Brief Description of the Module Content**

1) Motor area 2) Cranial nerves 3) Sensitivity 4) Sense organs 5) Higher nervous activity 6) Cerebellum, extrapyramidal system 7) Autonomic nervous system 8) The main syndromes of damage to the brain and spinal cord 9) Somatoneurological and neurosomatic syndromes 10) Paraclinical research methods 11) Neurosurgery: introductory lesson. Methods of examination in neurosurgery 12) tumors of the central nervous system 13) Vascular diseases of the brain in	Neurology is the science of the human nervous system in normal and pathological conditions. It includes a group of disciplines that study the structure, functions of the nervous system (neuroanatomy, neurohistology, neurophysiology, etc.) and diseases of the nervous system (neuropathology). - Neurology is divided into general (propaedeutics) and private. In propaedeutics, the regularities of the structure and function of the nervous system, the basics of syndromology and topical diagnostics are considered, in private neurology - individual forms of

neurosurgery 14) Traumatic brain injury 15) Tumors of the central nervous system 16) Vascular diseases of the brain and spinal cord. Modern ideas about the classification and clinic of acute cerebrovascular accidents and chronic vascular insufficiency. 17) Vascular diseases of the brain and spinal cord. 18) Infectious and parasitic diseases of the nervous system. Treatment and prevention. 19) Diseases of the peripheral nervous system. Treatment and prevention. 20) Chronic and chronically progressive diseases: amyotrophic lateral sclerosis - ALS, myasthenia gravis, syringomyelia 16) Vascular diseases of the brain and spinal cord. Modern ideas about the classification and clinic of acute cerebrovascular accidents and chronic vascular insufficiency. 17) Vascular diseases of the brain and spinal cord. 18) Infectious and parasitic diseases of the nervous system. Treatment and	the disease of the nervous system. The discipline deals with the main diseases of the nervous system while maintaining a single plan for presenting the material: distribution, history, classification, risk factors, pathomorphology and pathogenesis, diagnosis and differential diagnosis, modern methods of treatment, prognosis, medical, social and labor rehabilitation, preventive measures. - Issues of urgent and intensive neurology, as well as neurosomatic and somato-neurological and endocrine- neurosomatic syndromes, hereditary (chromosomal and genomic), chronically progressive diseases of the nervous system, medical genetic counseling, neuroinfections, functional disorders. Within the framework of the discipline "Nervous Diseases" much attention is paid to the study of laboratory and instrumental research methods and the development of practical skills. -Neurosurgery - deals with the issues of surgical treatment of diseases of the

prevention. 19) Diseases of the peripheral nervous system. Treatment and prevention. 20) Chronic and chronically progressive diseases: amyotrophic lateral sclerosis - ALS, myasthenia gravis, syringomyelia 21) Hereditary-degenerative diseases of the nervous system. Chromosomal diseases. Genomic diseases. 22) Demyelinating diseases of the nervous system. 23) Vegetative-endocrine diseases. neuroses. 24) Epilepsy and convulsive syndromes. Fainting.	nervous system.
1) Hereditary degenerative diseases of the nervous system. Chromosomal diseases. 2) Hereditary degenerative diseases of the nervous system - genomic diseases. Diseases affecting the muscular system: extrapyramidal system, pyramidal tracts of the spinal cord and cerebellum	Medical genetics is a field of medicine, a science that studies the phenomena of heredity and variability in various human populations, the features of the manifestation and development of normal and pathological signs, the dependence of diseases on genetic predisposition and environmental conditions. The discipline deals with hereditary diseases that are common in the

	population while maintaining a single plan for presenting the material: distribution, history, classification, risk factors, pathomorphology and pathogenesis, diagnosis and differential diagnosis, modern methods of treatment, prognosis, medical, social and labor rehabilitation, preventive measures. -Issues of urgent and intensive neurology, as well as medical genetic counseling. - Within the framework of the discipline "Nervous Diseases" much attention is paid to the study of laboratory and instrumental research methods and the development of practical skills.

Developers:

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RUDN University

Medical Institute

educational division -faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course title	" Normal physiology"
Course Workload	Credits and academic hours 8/288
COURSE CONTENTS	
Course Module Title	**Brief Description of the Module Content**
Module 1. Physiology of excitable cells.	Topic 1.1. Introduction to physiology. General physiology and cell physiology. Cell membranes, cell membrane transport.
	Topic 1.2. Excitability and its assessment. Membrane potential. Action potential.
	Topic 1.3. Physiology of the synapse. The physiology of the nerve and the nerve fiber.
	Topic 1.4. Physiology of muscle contraction.
Module 2. Nervous and humoral regulation of body functions.	Topic 2.1. Nervous regulation of physiological functions. Reflex and its characteristics. The main properties of nerve centers.
	Topic 2.2. Sympathetic, parasympathetic, metasympathetic nervous system. The role of the autonomic nervous system in the forming of adaptive reactions.
	Topic 2.3. Humoral regulation of physiological functions. Physiology of endocrine glands. General hormone properties. Endocrine glands hierarchy.
Module 3. Physiology of higher nervous activity.	Topic 3.1. Physiology of HNA. Conditional reflexes. Types of HNA and the temperament.
	Topic 3.2. Memory. Sleep.
Module 4. Physiology of sensory systems.	Topic 4.1. General physiology of sensory systems. Skin sensitivity.
	Topic 4.2. Physiology of vision.
	Topic 4.3. Physiology of hearing and vestibular apparatus.
	Topic 4.4. Physiology of taste and smell.
Module 5. Blood physiology.	Topic 5.1. Function and composition of blood. Blood plasma. Blood elements. White blood cells. Functions of red blood cells and hemoglobin. Blood types. Rh factor.
	Topic 5.2. Blood buffer systems. A system for regulating the aggregate state of blood.
Module 6. Respiratory physiology.	Topic 6.1. Physiology of respiration. External breathing. The role of respiratory muscles. Air volumes that characterize respiration.
	Topic 6.2. Biophysics of gas exchange. Transfer of gases by blood. Regulation of respiration.
Module 7. Physiology of the cardiovascular system.	Topic 7.1. Physiology of the cardiovascular system. Heart cycle. Propagation of excitation through the myocardium. Conductive

Course title	" Normal physiology"
Course Workload	Credits and academic hours 8/288
COURSE CONTENTS	
Course Module Title	Brief Description of the Module Content
	system of the heart. Properties of the heart muscle. Nervous and humoral regulation of the heart.
	Topic 7.2. Hemodynamics. Basic laws. Microcirculation and lymph flow. Coronary blood flow. Methods of blood circulation research.
Module 8. Excretion. Physiology of kidneys.	Topic 8.1. The system of excretory organs. Formation of urine in the kidneys. Kidneys as an organ of homeostasis.
	Topic 8.2. Non-urinary functions of the kidneys. The role of the kidneys in the development of adaptive responses of the body. Analysis of the RAAS scheme.
Module 9. Physiology of digestion.	Topic 9.1. Functions of the digestive tract. Motility of the digestive tract. Secretory function and digestion in the oral cavity.
	Topic 9.2. Secretory function and digestion in the stomach, small and large intestine. The role of the liver in digestion. Absorption of nutrients in the gastrointestinal tract.
Module 10. Metabolism and energy. Thermoregulation.	Topic 10.1. Metabolism. Energy exchange. Determination of the metabolic rate. Basic metabolic rate, total metabolic rate, working metabolism, daily energy consumption. Intake and consumption of substances in the body. Metabolism of proteins, fats, carbohydrates and trace elements.
	Topic 10.2. Neurohumoral regulation of metabolism in the body. Physiological basis of nutrition. Basic principles of compiling food rations. Thermoregulation. Body temperature and thermoreception.

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RUDN University
Institute of Medicine

educational division - faculty/institute/academy

COURSE DESCRIPTION

Dentistry

field of studies / speciality code and title

Course Title	**Obstetrics and Gynecology**
Course Workload	14 credits (504 academic hours)
Course contents	
Course Module Title	**Brief Description of the Module Content**
1.	**VII semester 72 hours (2 credits)**
	Topic 1.1. (SC, SR) Principles of collecting anamnesis in gynecological patients. Anamnesis. General symptomatology: pain, vaginal discharge, menstrual disorders, infertility. Factors contributing to the occurrence of gynecological diseases. Methods for objective examination of gynecological patients - external, two-handed (vaginal and rectus). Research with vaginal speculum. Colposcopy. Methods for the study of ovarian function. Methods for obtaining a biopsy of the cervix, endometrium. Visualization techniques (hysteroscopy, laparoscopy, MRI, CT). Determination of tubal patency (hysterosalpingography), laparoscopy. Cytological examination of smears and histological examination. Ultrasound examination. Genetic research methods (determination of sex chromatin, karyotype studies). **Topic 1.2.** (SC, SR) The structure of the organization of obstetric and gynecological care. The structure and functions of the women's clinic. **Topic 2.1.** (L, SC, SR) Clinical and physiological features of the reproductive system of women. The menstrual cycle and its regulation. Cyclic changes in the hypothalamus, pituitary, ovaries, uterus. Anatomical and physiological features of the genital organs of women at different ages. Patterns of formation and extinction of the reproductive function of women. Gonadotropic and ovarian hormones. Morphological changes in the ovaries and endometrium. Ovarian and uterine cycle. Functional diagnostic tests. Periods of a woman’s life. **Topic 3.1.** (L, SC, SR) Classification of menstrual disorders. Etiology and pathogenesis of menstrual disorders. Primary and secondary amenorrhea,

	normo-, hyper- and hypogonadotropic. Ovarian and uterine forms of amenorrhea. Dysgenesis of the gonads. Testicular feminization. Premature ovarian failure. Central hypothalamic amenorrhea, pituitary forms of amenorrhea (pituitary insufficiency, hyperprolactinemia). Polycystic ovary syndrome: etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment. **Topic 4.1.** (L, SC, SR) Climacteric disorders in women. The concept of menopausal syndrome. Early, intermediate and late climacteric disorders. Postcastration syndrome. Etiology, pathogenesis, clinic, diagnosis and treatment. Principles of hormone replacement therapy in premenopause and postmenopause. Alternative therapy. **Topic 5.1.** (L, SC, SR) Nonspecific and specific inflammatory diseases of the female genital organs, their etiology and pathogenesis. Clinical features of inflammatory diseases in different periods of women's life (children, sexually mature, elderly). Clinic diagnostics, treatment, prevention of inflammatory diseases of the genitals of various localization: external (vulvitis, bartholinitis, vestibulitis) and internal genital organs (vaginitis, cervicitis, endometritis, salpingoophoritis, pelviperitonitis and parametritis). Complications of inflammatory diseases of the genitals. Prevention of inflammatory diseases of the female genital organs. **Topic 6.1.** (SC, SR) Sexually transmitted infections (gonorrhea, trichomoniasis, chlamydial infection, syphilis). Clinic, diagnosis, treatment, prevention, criteria for cure. The role of sexually transmitted infections in the occurrence of inflammatory diseases of the female genital organs. Candidiasis of the genitals. Tuberculosis of the female genital organs. Pathogenesis, classification, clinic, diagnosis, prevention, therapy. Contagious mollusk. Phyriosis Individual and population prevention of sexually transmitted infections and urogenital infections. Indications for surgical treatment of inflammatory formations of the uterus. **Topic 7.1.** (L, SC, SR) Etiology, classification od ectopic pregnancy. Hematoperitoneum. Principles of emergency medical care. Etiology, pathogenesis, classification of ectopic pregnancy; diagnostic methods, clinic, differential diagnosis, treatment of ectopic pregnancy; stages of operation – tubectomy. **Topic 8.1.** (L, SC, SR) Classification, clinical features. Diagnostic and treatment methods (chemotherapy, surgery). Organization of the fight against cancer in the Russian Federation. **Topic 9.1.** (L, SC, SR) Malformations of the genital organs, infantilism, gonadal dysgenesis (clinical manifestations, diagnosis, methods of correction). Disorders of puberty. Clinical and hormonal aspects, diagnosis, treatment. Surgical treatment of malformations of the genitals and urinary system, including laparoscopic salpingo-stomatoplasty, retrograde hysteroresectoscopy, operations by vaginal approach with laparoscopic assistance, including reconstruction of the vagina using synthetic implants. **Topic 9.2.** (L, SC, SR) Classification, etiology of traumatism of female genital organs, clinical signs, diagnosis, principles of treatment and prevention of traumatism. **Topic 10.1.** (L, SC, SR) Emergency assistance for women with genital trauma. Traumatic injuries of the urinary organs. Preoperative preparation. Technique of surgical intervention on the vaginal part of the cervix, with prolapse of the genitals. Postoperative management of patients. Classification and characterization of anomalies of the position of the female genital organs. Causes of occurrence. Diagnosis and treatment (conservative, operative with

	laparoscopic assistance). Urinary incontinence: clinical signs, diagnosis and treatment. Urogenital fistula, surgical treatment.
2.	**VIII semester 72 hours (2 credits)**

	Topic 11.1. (L, SC, SR) Modern theories of the pathogenesis of fibroids (leiomyomas) of the uterus. Clinic, diagnosis. Conservative and surgical treatments. Multicomponent treatment of uterine leiomyoma using laparoscopic surgery, uterine artery embolization and ultrasound ablation of uterine fibroids under MRI control. Rehabilitation activities. Uterine sarcoma. **Topic 12.1** (L, SC, SR) Definition of endometriosis. Theory of endometriosis. Classification. Clinic of genital endometriosis (endometriosis of the uterus and cervix, fallopian tubes, ovaries, retrocervical). Clinic of extragenital endometriosis (endometriosis of the navel, postoperative scar and other organs). Surgical and conservative treatment of endometriosis. Rehabilitation of patients. Surgical treatment of adhesions of stage 4. Preoperative preparation. Postoperative management of patients. Hysterectomy. Laparoscopic operations. **Topic 13.1** (L, SC, SR) Kraurosis and leukoplakia of the vulva. Cancer of the vulva and vagina. Diagnosis and treatment. Precancerous diseases of the cervix uteri (pseudo- erosion, ectopia, endocervicosis, polyp, leukoplakia, erythroplakia, papilloma). Colposcopic picture. The management of dysplasia. **Topic 14.1** (L, SC, SR) Classification, clinic, diagnosis and treatment of cervical cancer. The diagnostic value of colposcopy, cytology, histology. **Topic 15.1** (L, SC, SR) Endometrial hyperplastic processes (glandular hyperplasia, polyposis, atypical hyperplasia). Methods of treatment depending on the age of the woman. **Topic 15.2.** (L, SC, SR) Endometrial cancer, classification, clinic, diagnosis, treatment methods. **Topic 16.1.** (L, SC, SR) Ovarian follicular cysts. Cysts of the corpus luteum of the ovary. Theca- lutein cysts. Cysts of rudimentary organs. Cysts of the fallopian tubes, uterus, vagina, large vestibular glands vestibule of the vagina. Ovarian benign tumors: histological classification, clinic, diagnosis, treatment. **Topic 17.1.** (L, SC, SR) Ovarian cancer (primary, secondary, metastatic), stages, diagnosis, treatment. **Topic 18.1.** (L, SC, SR) Abnormal uterine bleeding (AUB), classification PALM- COEIN. Uterine bleeding in puberty. Abnormal uterine bleeding in the reproductive and premenopausal periods. **Topic 19.1.** (L, SC, SR) Family planning in the modern world. Principles of family planning counseling. Modern contraception. Principles of selection of contraceptive methods. Contraception in different age periods of a woman. Features of pregnancy prevention in women under 18 years old, after 35 years, the observance of the optimal intervals between childbirths. **Topic 20.1.** (L, SC, SR) Infertility in marriage: etiology, principles of examination of a married couple with infertility. Female infertility: the main causes, diagnosis and treatment methods. Male infertility: the main causes and methods of treatment. Modern methods of infertility treatment – assisted reproductive technologies. Infertility prevention. Organization of care for the couples with infertility. **Topic 21.1.** (L) Gynecological conditions requiring urgent medical care. Indications for surgery. Principles of management.

	Curation: Curation of patients for writing patient history case. Establishing diagnosis and plan management.

№ of the module	Sections of the module with the type of work. Short description of the program.
1.	**IX semester 144 hours (4 credits)**
	Topic 1.1. (SC) Structure, principles of organization of work and tasks of the antenatal clinic and outpatient hospital, the nature of assistance to the female population, the main indicators of the activities of the antenatal clinic, the principles of antenatal care, the timing of registering pregnant women, prenatal and postnatal patronage, the frequency of visits to the antenatal clinic and the methods of examination during pregnancy, terms of granting and duration of maternity leave, the basis of perinatal risk strategy. **Topic 1.2**. (SC) Organization of anti-epidemic regime **Topic 2.1.** (SC) anatomy of the female genital organs, the muscles and fascia of the pelvic floor, the female pelvis from an obstetric point of view, the structure of the pelvis, its differences from the male, the plane of the pelvis, their boundaries and dimensions, anatomical, wire line (axis) and the inclination angle of the pelvis; normal biocenosis of the genital tract, the mechanisms of its protection, the role of the vaginal microflora. **Topic 2.2.** (SC) Sizes of fetal head. Obstetrical terms **Topic 3.1.** (SC) Collecting anamnesis in a pregnant woman; conducting a general objective and special obstetric examination, including measuring the abdominal circumference, the height of the uterus, the size of the pelvic planes; determination of the true conjugate (4 ways); measures the Frank size , the dimensions of the lumbosacral rhombus; determination of the presentation, position, and lie of the fetus; examination of the heartbeat of the fetus and its frequency; internal obstetrics examination for determining the degree of maturity of the cervix. **Topic 4.1** (SC) Definition of the mechanism of labor, factors determining the mechanism of labor, occipitoanterior variety of vertex presentation, occipitoposterior variety of vertex presentation. **Topic 5.1.** (SC) Modern views on the causes of the onset of childbirth, the concept of "ripeness for childbirth", pre-birth signs, the clinical signs and periods of childbirth, their course and management, the rules and procedure for examining the soft tissues of the birth canal in puerperal period, the main moments of the first toilet of the newborn, diagnosing the onset of labor, assessing the nature of contractions (frequency, duration, strength and soreness), the condition of the woman in labor and the puerperal. Interpret the partogram, assess the parameters of the fetal heartbeat, determine the signs of placental separation, examine the placenta. **Topic 6.1.** (SC) Changes in the organs and systems of the puerperal, features of the course and management of the postpartum period, modern perinatal technologies, hygiene measures, the basic principles of breastfeeding. **Topic 7.1.** (SC) Pertinence, epidemiology, etiology, pathogenesis, classification, uterine inertia, excessive uterine activity, uncoordinated uterine activity (hypertonic dysfunction). **Topic 8.1.** (SC) Etiology, classification, diagnosis of pelvic presentation of the fetus; to demonstrate on the phantom the mechanism of labor in the pelvic presentation; to determine the location of the presenting part in the birth canal; show Tsovyanov and Bracht maneuvers; demonstrate extraction of the head of

	the fetus according to the method of Mauriceau–Smellie–Veit; make a diagnosis and determine the management of childbirth (vaginal delivery or cesarean section). **Topic 9.1.** (L, SC) Classification of early toxicosis, pathogenesis, clinics, treatment, complications. The principles of management. Indications for pregnancy termination **Topic 9.2.** (L, SC) Classification of preeclampsia, pathogenesis, clinics, treatment, complications. The main stages of emergency care for eclampsia, as well as the principles of management of labor. **Topic 10.1.** (SC) Classification, causes of development, methods of diagnosis and delivery, principles of spontaneous labor and complications.
2.	**X semester 108 hours (3 credits)**

	Topic 11.1. (SC) Etiology of post-term pregnancy, its diagnosis; tactics of pregnancy and its complications, complications and characteristics of childbirth, signs of postmaturity of the newborn. Indications, contraindications and methods of conducting programmed childbirth. **Topic 12.1.** (SC) Causes, diagnosis, treatment of preterm labor; features of the course of labor, pregnancy management tactics and its complications in case of premature rupture of the membranes. **Topic 13.1.** (SC) Etiology and pathogenesis of various anomalies of the location of the placenta, diagnosis of anomalies of the location of the placenta, rational treatment, an algorithm for stopping the bleeding, methods of delivery and prevention. **Topic 13.2.** (SC) Etiology and pathogenesis of placental abruption. Diagnosis and treatment, an algorithm for stopping the bleeding, methods of delivery and prevention. **Topic 14.1.** (L, SC) Definition of “bleeding in III stage of labor", “postpartum hemorrhage"; etiology and pathogenesis; clinical presentation; diagnosis and methods for hemostasis. Algorithm of blood loss restoration. Prevention. **Topic 15.1.** (SC) Epidemiology, etiopathogenesis of isoimmunization, antenatal and postnatal diagnostics, various methods of treating the fetus and newborn, indications for antenatal and postnatal prophylaxis. **Topic 16.1.** (L, SC) Classification of postpartum infectious diseases, factors contributing to the development of postpartum infectious diseases during pregnancy, childbirth and the postpartum period, clinical features; diagnostic methods, principles of treatment of postpartum inflammatory diseases and prevention. **Topic 17.1.** (L, SC) Diagnostics of postpartum pelvioperitonitis. Basic principles of treatment of postpartum infectious diseases. Basic principles of treatment of peritonitis. Septic shock (etiology, pathogenesis, clinic, classification, diagnosis, treatment). Postpartum mastitis (etiology, pathogenesis, clinic, classification, diagnosis, treatment). **Topic 18.1.** (SC) Clinics of childbirth. In which types of extensor presentations, childbirth through the birth canal is impossible, peculiarities of labor management by stages. Complications during pregnancy, childbirth and in the postpartum period. Anterior and posterior asynclitism. The reasons for the formation of an asynclitic insertion: a relaxed abdominal wall and lower segment of the uterus. State of the pelvis of the woman in labor, its contraction and especially its flattening, as well as the degree of inclination, the possibility of childbirth through the natural birth canal. Incorrect standing of the fetal head (high sagittal and low transverse standing
	of the sagittal suture): etiology, diagnosis and management of labor, methods of delivery, complications
3.	**XI semester 108 hours (3 credits)**

	Topic 19.1. (SC) Causes, clinic, diagnosis, medical tactics for all types of maternal trauma. **Topic 20.1.** (SC) Absolute and relative indications, contraindications for emergency and elective caesarean section; methods of operation; advantages and disadvantages of various methods (incision in the uterus, stitching of wounds, types of sutures, features of anesthesia); preoperative preparation and tactics of the postoperative period; complications. **Topic 21.1.** (SC) Applying obstetric forceps and vacuum fetal extraction: indications, contraindications and conditions for the manipulations **Topic 22.1.** (SC) Definitions of the minor obstetric operations; the significance of these operations in modern obstetrics; indications and contraindications for operations; conditions for their implementation; methods and techniques of operations; preoperative preparation; possible complications. **Topic 23.1.** (SC) Definition of multiple pregnancy, features of the formation of fetal eggs in the case of multiple pregnancy, the course of pregnancy and the features of the development of the fetus, methods for diagnosing multiple pregnancy, the course of labor and the features of management, possible complications of both mother and fetus, methods of treatment and prevention, management of the II-III stages of labor and the postpartum period. **Topic 24.1.** (SC) Epidemiology, etiology and pathogenesis of miscarriage. Types of miscarriage, their clinical manifestations, diagnosis and management of patients. Rehabilitation of patients and prevention.

DEVELOPERS:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Oncology, Radiation Therapy
Course Workload	Credits and academic hours – 3/108
Course contents	
Course Module Title	**Brief Description of the Module Content**
1. Lung cancer	The aspects of the modern instrumental, morphological and laboratory diagnostics of lung cancer are considered, together with its TNM staging. Indications and contraindications to planning and implementation of surgery, radiotherapy and drug therapy are discussed. Follow-up and rehabilitation after treatment are highlighted.
2. Breast cancer	Epidemiology and spread of breast cancer are described. Bio-genetic predisposing factors are discussed. The modern instrumental, morphological and laboratory diagnostics of breast cancer are considered, including its immune histochemistry and genetics. The modern radical operations, plastic surgery on breasts are described. Indications to radiotherapy, chemotherapy and hormonal therapy are discussed.
3. Stomach cancer	Diagnostics of stomach cancer is described, including X-ray, endoscopic and laboratory methods. Modern data on its morphology are given. Early detection of stomach cancer and TNM classification are discussed. The types of radical and palliative operation depending on localization of the tumor and its spread are described. Modern drug therapy and radiation therapy of stomach cancer are taught.

Esophageal cancer	The modern diagnostic methods in esophageal cancer are considered, which allow to define a tumor's stage and spread. The modern surgical operations, radiotherapy and drug therapy are described, as well as follow-up and rehabilitation.
Colon cancer	The data on the modern instrumental and laboratory diagnostics of colorectal cancers are given. Radical, cytoreductive and palliative surgery in colorectal cancer is described depending on its localization. Indications to chemotherapy and targeted therapy are discussed.
4. Hodgkin and non-Hodgkin lymphoma	Modern classification of lymphomas is given. Diagnostics and morphological features of Hodgkin's lymphoma are described. Its classification, modern chemotherapy and radiotherapy, complex treatment and rehabilitation are discussed.
7 Pancreatobiliary and liver cancers	The modern data on diagnostics and peculiarities of the course of pancreato-biliary and liver cancers are given. The aspects of jaundice control and preparation to surgery, combined and complex treatment are described Late treatment results are presented.
8. Skin cancer and melanoma 9. Thyroid carcinoma	The epidemiological and statistical data on skin cancer and melanoma are given. Characteristic features of their local development and metastases are described. The modern surgery, radiotherapy and drug therapy of those tumors are discussed. A special emphasis is made on characteristic features of melanoma's local development and metastases. . Statistics and epidemiology of thyroid carcinoma. Its morphology and clinical course. Radical operations. Distant and systemic radiation therapy. Hormonal supportive therapy.
10. Chemotherapy of malignant tumors	The principles of modern drug therapy of malignant tumors are discussed. The classification of anti-cancer drugs, mechanism of their action and significance for treatment of individual tumors are taught.

11. Radiation therapy of malignant tumors	The modern use of various kinds of irradiation for malignant tumors is described. Each kind if irradiation and its use for various malignant tumors are discussed, including radiation therapy on linear accelerators and intra-tissue irradiation. Systemic radiation therapy is also considered.
5. Lung cancer	The aspects of the modern instrumental, morphological and laboratory diagnostics of lung cancer are considered, together with its TNM staging. Indications and contraindications to planning and implementation of surgery, radiotherapy and drug therapy are discussed. Follow-up and rehabilitation after treatment are highlighted.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title 2023-2024

Course Title	**Ophthalmology**
Course Workload	Credits and academic hours – 3/108
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Introduction	1.1. The history of ophthalmology. 1.2. The main tasks of General practitioners; the problem of ocular morbidity and blindness. 1.3. Evolution of the vision organ and the development of the human eye.
Module 2.	2.1 Three parts of the visual analyzer. Anatomy of the orbit. 2.2 Protective apparatus of the eye. Conjunctiva. 2.3 Lacrimal organs. Tear secrection and evocuation. 2.4 Tunics of the eyeball. 2.5 Structures of the eyeball.
Module 3.	3.1 examination of the eye with the side light and in transmitted light. The basics of biomicroscopy. 3.2 the technique of ophthalmoscopy.
Module 4.	4.1 Central and peripheral vision. 4.2 Changes of the vision fields. 4.3 Colour vision. Disorders of color perception. 4.4 Light perception. Light adaptation.

Module 5.	5.1 Optic system of the visual organ. 5.2 Visual acuity. 5.3 Physical and clinical refraction. 5.4 Accommodation and convergence.
Module 6.	6.1 Clinical refractive errors. Hypermetropia and myopia 6.2 Astigmatism, its types, principles of correction. 6.3 Presbyopia, principles of correction. 6.4 Refractive syrgery
Module 7.	7.1 Binocular vision. Disorders of binocular vision. 7.2 Strabismus, types. reasons. 7.3 Amblyopia. Classification. 7.4 Treatment of strabismus.
Module 8.	8.1 Diseases of the eyelids. Congenital anomalies of the eyelids. 8.2 Diseases of the lachrymal organs. Differential diagnosis. The methods of treatment. 8.3 Diseases of the orbit. Tumors of the orbit.
Module 9.	9.1 Acute infectious conjunctivitis. Classification. Treatment. 9.2 Chronic conjunctivitis. Classification. Treatment. 9.3 Allergic conjunctivitis. Classification. Treatment. 9.4 Degenerative changes the conjunctiva. Tumors of the conjunctiva
Module 10.	10.1 General symptomes of cornea diseases. Exogenous keratitis. 10.2 corneal ulcer. Etiology, clinical picture, treatment. 10.3 Avitaminoses of the cornea. 10.4 Outcomes of keratitis. Treatment of keratitis and their consequences. 10.5 Sclerites. The clinical symptomes.

Module 11.	11.1 Uveitis. Etiology and classification. 11.2 Iritis. Iridocyclitis. Clinical picture, diagnostics, treatment. 11.3 Chorioretinitis. Clinical picture, diagnostics, treatment. 11.4 Degenerative changes in the vascular tunic. Congenital anomalies.
	11.5 Tumors of the vascular tunic. Diagnosis. Treatment.
Module 12.	12.1 Retinal changes in the cases of systemic diseases. The clinical picture. Treatment. 12.2 Degenerative changes of the retina. The clinical picture. Treatment. 12.3 nflammatory and not inflammatory diseases of the optic nerve. Features of the clinical picture. Treatment. 12.4 Congenital anomalies and tumors of the retina and optic nerve. Features of diagnostics and treatment.
Module 13.	13.1 Definition of glaucoma. Normal and elevated IOP. 13.2 Etiology, pathogenesis and classification of glaucoma. 13.3 Acute attack of glaucoma. Features of the clinical picture. Treatment. 13.4 Methods of treatment of glaucoma.
Module 14.	14.1 Definition of cataract. Classification of cataracts. Link cataracts development with systemic diseases. 14.2 Modern principles of treatment of cataract. 14.3 Diseases of the vitreous body

Module 15.	15.1 The causes and classification of eye injuries. Damage to the eyelids. 15.2 Blunt trauma of the eye-ball. Trauma of the orbit. Diagnosis. Treatment. 15.3 Eye burns. Classification. The methods of treatment. 15.4 Organization of eye care. vision disability. 15.Eye prostetics.
Module 16.	16.1 features of ocular pathology in countries with a tropical climate. Classification of eye diseases in tropical countries.
	Trachoma. 16.2 Ophthalmohelminthiases (main types). 16.3 Ophthalmomyiasis. Treatment, prevention. 16.4 Change of the eye in general diseases. Treatment. 16.5 the eye diseases in cases of vitamins' deficiency, animals's and plants's poisons.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2024

Course Title	**Organization of special care for patients**
Course Workload	Credits and academic hours **– 2/72 hours**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Specialized care	Organization of special care. Staff training. Job responsibilities. Medical-legal, medical-social, medical-psychological, pedagogical aspects. Organization of the patient's school.
Specialized care in neurology	Organization of care for patients with stroke, cerebral ischemia, mental disorders. Process, phases, planning, care assessment. Special care and rehabilitation products. Organization of specialized care for patients with Parkinson's disease
Specialized care for dementia patients	Organization of specialized care for patients with Alzheimer's disease. Organization of care for patients with Peak's disease (frontotemporal dementia). Special care and rehabilitation products
Specialized care in oncology	Organization of care at various stages of the oncological process. Process, phases, planning, care assessment. Communication problems Disease care. Recovery is faith and hope. Pain. Smell. The risk of development and formation of bedsores. Skin care in the irradiated area. Nutrition. Medical and protective regime. Special care and rehabilitation products
Specialized care for incontinence	Bedsores. Causes. Treatment. Process, phases, planning, assessment of care Incontinence. Incontinence problems. Causes. Treatment. Process, phases, planning, care assessment. Means of care and rehabilitation for incontinence, features of choice, selection, usage. Skin care, features of intimate hygiene. Depression. Patient's school.

Specialized care in endocrinology	Organization of specialized care for patients with diabetes. Causes. Process, phases, planning, assessment of care. The patient's school
Specialized care in pulmonology	Features of care for broncho-pulmonary pathology. Process, phases, planning, care assessment. The position of the patient in bed. Drainage laying. Oxygen therapy. Inhalation. Respiratory and therapeutic exercises, massage. Patient's diary. Observation, self-control, self-care. Care and rehabilitation products.
Specialized trauma care	Features of care for violations of the integrity of the musculoskeletal system, skeletal traction, plaster casts. Prevention of pressure sores, incl. under plaster casts, splints. Skin care. Prevention of pneumonia. Increased physical activity.
Specialized care for patients with HIV / AIDS	Features of invasive procedures. Process, phases, planning, care assessment. Examination and hygiene of the oral cavity as a marker of the manifestation of HIV / AIDS, the state of the body. Skin care, manicure, pedicure. Prevention of infection.

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COURSE DESCRIPTION

31.05.01 **General Medicine**

field of studies / speciality code and title

Course Title	Otorhinolaryngology
Course Workload	Credits and academic hours **4 CU (144 hours)**
Course contents	
Course Module Title	**Brief Description of the Module Content**
1. Research methods of ENT – organs.	1. Research methods of ENT – organs: anterior rhinoscopy, posterior rhinoscopy, pharyngoscope, otoscopy.
2. Pathology of the nose and paranasal sinuses.	2. Acute and chronic diseases of the nasal cavity.Injuries of the nose and paranasal sinuses. Nosebleeds. Foreign body of the nasal cavity and paranasal sinuses. Inflammatory diseases of the paranasal sinuses.
3. Pathology of the pharynx.	3. Angina, complications of angina. Chronic tonsillitis. Foreign body of the pharynx. Adenoids.
4. Pathology of the ear.	4. Diseases of the external ear. Acute middle ear infections. Mastoiditis. Chronic diseases of the middle ear. Diseases of the inner ear.
5. Pathology of the larynx.	5. Acute and chronic diseases of the larynx. Tracheotomy.
6. Tumors of the ear and upper respiratory tract.	6. Tumors of the ear and upper respiratory tract.
7. Specific diseases of upper respiratory tract.	7. Specific diseases of upper respiratory tract.

Developers:

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HEAD of the Department: of otorhinolaryngology _____ V.I. Popadyuk

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2023-2024

Course Title	Outpatient Cardiology
Course Workload	Credits and academic hours – 7/252
Course contents	
Course Module Title	**Brief Description of the Module Content**

Module 1	1. ACE inhibitors. General characteristics and place in therapy. Classification of ACE inhibitors. Features of use ofsome preparations. Complications and limitations to use. 2. Sartans. Sakibuthril / valsartan. 4. Beta-blockers. Characteristics of the group. Cautions andcomplications of beta-blocker therapy. Nitrates. Characteristics of nitrates. Place nitrates intherapy. Complications and cautions when using. Nicorandil. 5. Calcium channel blockers (BCC). Dihydropyridine BCC.Complications with dihydropyridines. Pulse-thinning BPC. 6. Alpha-1-adrenoblockers 7. Diuretics. Loop diuretics. Thiazides and similar diuretics.Antagonists of aldosterone. Potassium-sparing diuretics. Inhibitors of carbonic anhydrase. 8. Antihypertensive drugs of central action. 9. Cardiac glycosides. Mechanism of action and effects.Place in modern therapy. Complications and contraindications for use 10. Antiarrhythmic drugs (AAP). AARP IA class. AARP IB class. AAS class IC. AARP class II. AARP class III. AARPclass IV. Other AARPs. 11. Antithrombotic agents. Antiaggregants,
	anticoagulants. Lipid-lowering drugs. Statins. Fibrates. Ezetimibe. Anicotinic acid. Final interview on the section.
Module 2	1. Arterial hypertension (AH). General issues. Rational pharmacotherapy. AH in pregnancy and lactation. Resistanthypertension. Pulmonary hypertension. Pharmacotherapy of hypertensive crises. 2. Ischemic heart disease (CHD). Angina pectoris. General issues. Rational pharmacotherapy of angina pectoris. Variable angina pectoris (Prinzmetal angina). Microvascularangina pectoris (syndrome X). 3. Chronic heart failure (CHF). General issues. Rationalpharmacotherapy. 4. Heart rhythm disturbances. Sinus tachycardia. Isolatedsinus tachycardia. Extravital extrasystole. Ventricular extrasystole. Reciprocal AV-node tachycardia. Atrial fibrillation. Atrial flutter.

	Ventricular tachycardia. WPW- syndrome. Final interview on the section.
Module 3	1. Indications for consultation of a cardiologist andnecessary studies before consultation. 2. AH, angina of tension, CHF. 3. Atrial fibrillation. Atrial flutter. 4. Other rhythm disturbances. . Postponed myocardial infarction, coronary angioplasty, aorto-coronary bypass. Final interview on the section. Finalinterview on discipline. . Arterial hypertension (AH). General issues. Rational pharmacotherapy. AH in pregnancy and lactation. Resistanthypertension. Pulmonary hypertension. Pharmacotherapy of hypertensive crises. 7. Ischemic heart disease (CHD). Angina pectoris. General issues. Rational pharmacotherapy of angina pectoris. Variable angina pectoris (Prinzmetal angina). Microvascularangina pectoris (syndrome X). 8. Chronic heart failure (CHF). General issues. Rationalpharmacotherapy. . Heart rhythm disturbances. Sinus tachycardia. Isolatedsinus tachycardia. Extravital extrasystole. Ventricular extrasystole. Reciprocal AV-node tachycardia. Atrial fibrillation. Atrial flutter. Ventricular tachycardia. WPW-syndrome. Final interview on the section. 10. Indications for consultation of a cardiologist andnecessary studies before consultation.

	11. AH, angina of tension, CHF. 12. Atrial fibrillation. Atrial flutter. 13. Other rhythm disturbances. Postponed myocardial infarction, coronary angioplasty, aorto-coronary bypass. Final interview on the section. Finalinterview on discipline.

Developers:

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Federal State Autonomous Educational Institution of Higher Education
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA
RUDN University

Medical Institute

educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 GENERAL MEDICINE

field of studies / speciality code and title

Course Title	**Pathological anatomy, clinical pathological anatomy.**
Course Workload	**7/252**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 Pathoanatomy of cells and tissues.	**Topic 1.1.** Reversible cell damage. Pathology of protein metabolism.
	Topic 1.2. Pathology of fat and mineral metabolism.
	Topic 1.3. Disorders of pigment metabolism.
	Topic 1.4. Irreversible cell damage. Necrosis. Apoptosis.
Module 2 Pathoanatomy of blood and lymph circulation disorders	**Topic 2.1.** Circulatory disorders.
	Topic 2.2. Thrombosis. Embolism.
Module 3 Pathoanatomy of inflammation, healing and tissue repair.	**Topic 3.1.** Exudative inflammation.
	Topic 3.2. Productive inflammation.
Module 4 Pathoanatomy of compensatory and adaptive processes.	**Topic 4.1.** Compensatory and adaptive processes (atrophy, hypertrophy, regeneration, wound healing, metaplasia).
Module 5 Pathoanatomy of tumors.	**Topic 5.1.** Tumors from the epithelium.
	Topic 5.2. Particular forms of cancer.
	Topic 5.3. Tumors of mesenchymal and mesodermal origin.
Module 6 Pathoanatomy of blood and bone marrow cells.	**Topic 6.1.** Hemoblastoses.
	Topic 6.2. Anemia.
Module 7 Pathoanatomy of diseases of the cardiovascular system.	**Topic 7.1.** Atherosclerosis.
	Topic 7.2. Coronary heart disease.
	Topic 7.3. Hypertension.
	Topic 7.4. Rheumatic diseases. Heart defects.
Module 8 Pathoanatomy of diseases of the urinary system.	**Topic 8.1.** Kidney diseases.
	Topic 8.2. Diseases of the urinary tract.

Module 9 Pathoanatomy of diseases of the digestive system.	**Topic 9.1.** Liver diseases.
	Topic 9.2. Diseases of the gallbladder.
	Topic 9.3. Stomach diseases.
	Topic 9.4. Intestinal diseases.
Module 10 Pathoanatomy of infectious diseases of bacterial and mycotic nature.	**Topic 10.1.** Introduction to infections. Typhus.
	Topic 10.2. Diphtheria. Scarlet fever. Bacillary dysentery.
	Topic 10.3. Bronchitis. Pneumonia.
	Topic 10.4. Tuberculosis.
	Topic 10.5. Syphilis.
	Topic 10.6. Leprosy.
	Topic 10.7. Mycoses.
Module 11 Pathoanatomy of infectious diseases of viral nature.	**Topic 11.1.** Flu.
	Topic 11.2. Measles.
Module 12 Pathoanatomy of parasitic diseases.	**Topic 12.1.** Parasitic diseases.
	Topic 12.2. Helminthiasis.
Module 13 Pathoanatomy of quarantine infections and sepsis.	**Topic 13.1.** Quarantine infections.
	Topic 13.2. Systemic inflammatory reaction syndrome.
	Topic 13.3. Sepsis.
	Topic 13.4. Multiple organ failure syndrome.

DEVELOPERS:

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RUDN University

Institute of Medicine

educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course title	**« Pathophysiology, clinical pathophysiology »**
Course Workload	Credits and academic hours 7/252
COURSE CONTENTS	
Course Module Title	**Brief Description of the Module Content**
Module 1 General nosology.	**Topic 1.1.** Conceptions of health and disease. Sano- and pathogenesis.
	Topic 1.2. Pathology of cellular biomembranes and organells. Types and mechanisms of cell death. Disorders of biorhythms of a cell.
Module 2 Non-specific pathological processes	**Topic 2.1.** Disorders of local blood circulation.
	Topic 2.2. Inflammation.
	Topic 2.3. Immunity. Immunopathology.
	Topic 2.4. Allergy.
	Topic 2.5. Pathophysiology of tumor growth.
Module 3 Non-specific metabolic disorders	**Topic 3.1.** Hypoxia.
	Topic 3.2. Pathology of body thermoregulation. Fever.
	Topic 3.3. Pathophysiology of carbohydrate metabolism. Diabetes mellitus.
	Topic 3.4. Pathology of a water-salt exchange. Edema. Pathophysiology of acid-base balance.
	Topic 3.5. Integral mechanisms of metabolic disorders.

	Topic 3.6. Pathophysiology of lipid, protein and purine metabolism.
Module 4 Extreme states	**Topic 4.1.** Pathophysiology of extreme states.
	Topic 4.2. Stress. Shock. Collapse. Coma. Dying and revival of an organism. Apparent and natural death. Principles of resuscitation.
	Topic 4.3. "Diseases of civilization". Chronopathology.
	Topic 4.5. Ecological pathophysiology
Module 5 Pathophysiology of the hematopoietic system	**Topic 5.1.** Anemias. Hemoblobonosis. Hemoglobinopathies.
	Topic 5.2. Leukocytosis. Leukopenia. Leukemias.
	Topic 5.3. Clinical tasks in the pathophysiology of the hematopoietic system.
	Topic 5.4. Hemorrhagic diatheses.
Module 6 Pathophysiology of the cardiovascular and respiratory systems.	**Topic 6.1.** Arrhythmias.
	Topic 6.2. Coronary heart disease. Coronarogenic and noncoronarogenic necrosis of the myocardium. Complications of myocardial infarction.
	Topic 6.3. Sudden cardiac death.
	Topic 6.4. Heart defects. Cardiomyopathies. Myocarditis. Endocarditis. Pericarditis.
	Topic 6.5. Heart failure. Pathophysiology of respiration.
	Topic 6.6. Pathophysiology of bronchial obstruction syndromes.
	Topic 6.7. Pathophysiology of vascular tonus.
	Topic 6.8. Pathophysiology of the vascular wall. Atherosclerosis.
Module 7 Pathophysiology of the gastrointestinal tract	**Topic 7.1.** Non-specific dysfunctions of the gastrointestinal tract.
	Topic 7.2. Acute and chronic gastritis. Peptic ulcer. Diseases of the operated GIT.
	Topic 7.3. Pathophysiology of the liver and bile ducts. Jaundice. Hepatic failure. Pathophysiology of cholecystitis. Pathophysiology of the pancreas. Intestinal obstruction.
Module 8	**Topic 8.1.** Non-specific disorders of the excretory function of the kidneys.

Pathophysiology of the excretory system	**Topic 8.2.** Nephrotic syndrome. Nephritic syndrome. Acute and chronic diffuse glomerulonephritis. Pyelonephritis. Urolithiasis. Acute and chronic renal failure. Uremia. Renal coma.
Module 9 Pathophysiology of the endocrine system	**Topic 9.1.** General mechanisms of endocrine disorders. Pathophysiology of the hypothalamic, pituitary and adrenal systems.
	Topic 9.2. Pathophysiology of thyroid, parathyroid glands, thymus, epiphysis and gonads.
Module 10 Pathophysiology of the nervous system and higher nervous activity	**Topic 10.1.** Pathophysiology of functional neuroses. Pathological reflexes. Pathophysiology of drug addiciton. Pathophysiology of alcoholism.
	Topic 10.2. Pathophysiology of CNS and neuroses.

Developers:

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Federal State Autonomous Educational Institution for Higher Education
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Institute of Medicine

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COURSE DESCRIPTION

31.05.01 General Medicine

(field of studies/specialty code and title)

2024

Course Title	**Pediatrics**
Course Workload	**9 credits (324 academic hours)**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 Growth and development of children	**1.1.** Periods of childhood. Physical development. Skin and subcutaneous fat: development, anatomical and physiological features, methods of examination and semiotics of lesions.
	1.2. Development, anatomical and physiological features, methods of examination and semiotics of lesions of the nervous and endocrine systems. Evaluation of neuropsychic development
	1.3. Nutrition and nutritional disorders in children.
	1.4. Feeding.
Module 2 Propedeutics of childhood diseases	**2.1.** Musculoskeletal system: development, anatomic and physiological features, methods of examination, and semiotics of disorders. Rickets, rickets-like diseases.
	2.2 Development, anatomical and physiological features, examination methods and semiotics of disorders of the GIT and urinary system.

	2.3. Development, anatomical and physiological features, examination methods and semiotics of disorders of the blood,

	immune system and lymphatic system. Anemia..
	2.4. Development, anatomical and physiological features, examination methods and semiotics of disorders of the respiratory system. Community-acquired pneumonia. Acute bronchiolitis
	2.5. Development, anatomical and physiological features, examination methods and semiotics of disorders of the cardiovascular system. Heart failure.
	2.6. Congenital heart disease
	2.7. Myocardial diseases. Cardiomyopathies. Infectious endocarditis.
	2.8. Allergic diseases
Module 3 Somatic childhood diseases	**3.1.** The child with stridor.
	3.2. The child with chronic cough
	3.3. Acute rheumatic fever. Diseases of the joints.
	3.4. Diffuse connective tissue diseases
	3.5. Systemic vasculitis
	3.6. Diseases of the urinary system
	3.7. Gastrointestinal tract diseases
	3.8. Hemorrhagic diseases. Hemorrhagic disease of the newborn.
	3.9. Diabetes mellitus
	3.10. Endocrine diseases
	3.11. Antibacterial therapy
Module 4 Pediatric infectious diseases	**4.1.** Exanthema: measles, rubella, parvovirus infection.
	4.2.. Enterovirus infections. Poliomyelitis
	4.3. Mumps, diphtheria
	4.4. Meningeal syndrome. Bacterial and viral meningitis. Meningococcal infection..

	4.5. Streptococcal infection. Scarlet fever. Yersiniosis. Pseudotuberculosis. Multisystem inflammatory syndrome in children.
	4.6. Herpes infection.
	4.7. Acute intestinal infections. Hemolytic uremic syndrome
	4.8. Vaccination of children

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Pharmacology
Course Workload, Credits/Ac.h.	Credits and academic hours - 7 /252
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. General Pharmacology	Theme 1.1. Recipe. Introduction to Pharmacology. Theme 1.2. Basic principles of pharmacodynamics Theme 1.3. Basic principles of pharmacokinetics.
Module 2. Pharmacology of drugs groups. Drugs affecting afferent and efferent innervation	Theme 2.1. Drugs affecting afferent innervation. Local anesthetics. Theme 2.2. Cholinergic agents. Theme 2.3. Adrenomimetics and sympathomimetics Theme 2.4. Adrenolythics and sympatholytics.
Module 3. Pharmacology of drugs groups. Drugs affecting the cardiovascular system	Theme 3.1. Diuretics. Theme 3.2. Lipid-lowering agents Theme 3.3. Antihypertensive drugs Theme 3.4. Antianginal drugs Theme 3.5. Antiarrhythmic drugs. Theme 3.6. Drugs used in heart failure.
Module 4. Pharmacology of drugs groups. Drugs affecting hemostasis and hematopoiesis	Theme 4.1. Drugs affecting the blood coagulation system. Theme 4.2. Drugs affecting the hematopoietic system.
Module 5. Pharmacology of drugs groups. Drugs affecting the functions of the	Theme 5.1. Drugs affecting the functions of the respiratory system.

respiratory system, digestion and metabolic processes	Theme 5.2. Drugs affecting the functions of the digestive system. Theme 5.3. Hormones of the pituitary gland, hypothalamus, pineal gland, thyroid and pancreas, hypoglycemic drugs. Theme 5.4. Hormonal preparations of steroid structure Theme 5.5. Drugs affecting immune processes. Theme 5.6. Antiallergic drugs
Module 6. Pharmacology of drugs groups. Drugs affecting the central nervous system. Medicines affecting the nociceptive system and the synthesis of pain and inflammation mediators	Theme 6.1. Preparations for inhalation and intravenous anesthesia. Analgesics Theme 6.2. Sedative drugs, hypnotic drugs. Antiepileptic drugs. Theme 6.3. Antipsychotics. Antidepressants. Theme 6.4. Psychostimulants. Nootropics (piracetam). Drugs for neurodegenerative diseases.
Module 7. Pharmacology of drugs groups. Antibacterial, antiviral and antifungal medicines	Theme 7.1. Antibiotics of natural origin and semisynthetic agents. Theme 7.2. Non-beta-lactam antibiotics and synthetic antimicrobial agents: Theme 7.3. Antiviral, antifungal agents. Theme 7.4. Anti-tuberculosis drugs. Theme 7.5. Antiprotozoal, anti-syphilitic, anthelmintic drugs and nematicides

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COURSE DESCRIPTION

31.05.01 General Medicine field
of studies / speciality code and title

Course Title	Philosophy
Course Workload Credits/ac.h.	Credits and academic hours 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1: Characteristics of philosophical knowledge	**Topic 1.1.** Philosophy, its subject and functions
	Topic 1.2. Philosophy and worldview. Historical types of worldview
Module 2: Boundaries of Knowledge and Peculiarities of Cognition of Reality	**Topic 2.1.** Knowledge and opinion. Socrates' philosophy and the teachings of the Sophists
	Topic 2.2. Objective and subjective knowledge
	Topic 2.3. Possibilities and boundaries of cognition. Notion truths
Module 3: Consciousness and the Unconscious. Philosophical anthropology	**Topic 3.1.** Phenomenon of consciousness. The concept of "artificial intelligence"
	Topic 3.2. The unconscious and the problem of self-knowledge
	Topic 3.3. Human nature
Module 4: Problems of Being and the Basis of Human Existence	**Topic 4.1.** The problem of the original. Concepts of matter and development
	Topic 4.2. The problem of free will in the context of fatalism and indeterminism
Module 5: Moral Philosophy and Ideals of Human Life	**Topic 5.1.** Ideals of human life: the Cynics, Epicureans and Stoics
	Topic 5.2. The concept of morality and the problem of egoism
	Topic 5.3. Kantianism and utilitarianism on moral dilemmas
Module 6: Social philosophy: ideals of a just society	**Topic 6.1.** Plato and the idea of the ideal state. Modern political ideals
	Topic 6.2. K. Marx and the idea of a classless society. The concept of alienation

Course Title	Philosophy
Course Workload Credits/ac.h.	Credits and academic hours 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
	Topic 6.3. The idea of directionality of historical development. The concept of social progress

DEVELOPER:
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Federal State Autonomous Educational Institution of Higher Education
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Institute of Medicine

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Phthisiology
Course Workload	Credits and academic hours - 4 credits (144 academic hours)
Course contents	
Course Module Title	**Brief Description of the Module Content**
History of tuberculosis studies.	History of tuberculosis studies. Stages of organizational anti-tuberculosis events. International organizations' anti-tuberculosis activities. Current state of the tubercular epidemics worldwide and in the Russian Federation
Etiology and pathogenesis of tuberculosis	Characteristic of MBT. Ways of transmission of tuberculosis infection. Etiology and immunity. Pathological anatomy of tuberculosis
General methods of patient examination	Objective examination of the patient with tuberculosis. Laboratory methods of identification of MBT in pathological material. Methods of determination of MBT resistance to antitubercular drugs. Tuberculin Testing. Performance of Mantoux Test, interpretation of the results. Radiological methods of diagnostics. Bronchological examination of patients with tuberculosis Laboratory research of blood test, urine, pleural and cerebrospinal fluids.
Classification of tuberculosis	Principles of clinical classification of tuberculosis and international classification of diseases and causes of death
Treatment of tuberculosis	The drugs used in tuberculosis treatment. Standard TB treatment regimens. Elimination of side reactions at chemotherapy. MDR-tuberculosis treatment. Collapsotherapy and surgical methods of treatment. Treatment tactics of patients with TB complications.

	Treatment of lung hemorrhages and spontaneous pheumothorax
Extrapulmonary tuberculosis	Pathogenesis of extrathoracic forms of tuberculosis. Tuberculosis of the genitourinary system. Osteoarticular tuberculosis. Abdominal tuberculosis. Tuberculosis of peripheral lymph nodes. Tuberculous meningitis.
Tuberculosis and the concomitant diseases/states	Tuberculosis, HIV and AIDS. Lung tuberculosis and diabetes mellitus. Tuberculosis and chronic nonspesific lung diseases. Tuberculosis and alcoholism. Tuberculosis and cardiovascular diseases. Tuberculosis and lung cancer. Tuberculosis and liver diseases. Tuberculosis and stomach and duodenum ulcer. Tuberculosis and pregnancy. Neuropsychic disorders at tuberculosis
Organization of fight with tuberculosis	Logistics of health care delivery to tuberculosis patients in the Russian Federation. Regulations of health care delivery to tuberculosis patients in the medical organizations. Antitubercular dispensary. Specific prevention of tuberculosis. Vaccination. Chemoprophylaxis. Social and sanitary prevention of tuberculosis

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Federal State Autonomous Educational Institution of Higher Education
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA
RUDN University

Institute of Medicine

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Physical Culture
Course Workload.	Credits and academic hours – 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 Practical	Topic 1.1. Physical culture in general cultural and professional training of students
	Topic 1.2. Socio-biological foundations of physical culture
	Topic 1.3. Ski training
	Topic 1.4. Basics of a healthy lifestyle for a student
	Topic 1.5. Self-control of those involved in physical culture and sports
	Topic 1.6. Athletics
Module 2. Control section	Acceptance of control tests and standards

Course Title	«Applied physical culture»
Course Workload.	Credits and academic hours – - / 328
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 Practical	Topic 1.1 Sport games
	Topic 1.2 GPT with elements of strength training
	Topic 1.3 GPT with elements of athletics
	Topic 1.4 GPT with elements of health-improving gymnastics
	Topic 1.5 GPT GPT with elements of martial arts
	Topic 1.6 Health-improving types of physical activity for students with poor health
Module 2 Independent work of students	Topic 2.1. Physical culture in the production activities of bachelors and specialists
	Topic 2.2. Psychophysiological foundations of educational work and intellectual activity
	Topic 2.3. Means of physical culture in regulating performance
	Topic 2.4. General physical and sports training in the physical education system
	Topic 2.5. Basics of a healthy lifestyle for a student. Features of adaptation to physical activity
	Topic 2.6. Physical culture in general cultural and professional training of students
	Topic 2.7. Socio-biological foundations of physical culture .
	Topic 2.8. Self-control of those involved in physical culture and sports

DEVELOPERS:

E.A. Lubyshev

HEAD of Educational Department:

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T.R. Lebedeva

Federal State Autonomous Educational Institution of Higher Education
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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2023-2024

Course Title	Physical Training
Course Workload	Credits and academic hours – 0/328
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 Methodical and practical	**1.1.** Self control in physical exerciseing and sports **1.2.** Human physical development indicators **1.3.** Human functional statement indicators **1.4.** Physical fitness indicators **1.5.** Physical indurance indicators **1.6.** Human Psycho-phisiological statement indicators **1.7.**Physical culture in production activities of bechelor and specialist

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Physics
Course Workload	Credits and academic hours – 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
Introductory lecture. Fundamentals of vector and mathematical analysis	Methods of processing of measurement results. Direct and indirect measurements. Theory of errors. Types of errors: gross, systematic, random; absolute, relative. Rules for registration of laboratory work. The order of writing the abstract. Safety at work in the physical laboratory. Basic concepts of mathematical and vector analysis. Derivatives and differentials. Rules for adding (subtracting) and multiplying vectors. Integration rules. Calculations of indefinite and definite integrals.
Mechanics. Oscillations	Introduction. Definitions (kinematics, dynamics, statics, trajectory, reference systems, equation of motion). Rectilinear motion. Circular motion. Inertia. Force of inertia. Dynamics of rotational motion. Moment of inertia. The moment of impulse and the law of its preservation. Gravitational interaction. Acceleration of gravity. Weightlessness. Harmonic vibrations. Gravitational interaction. Acceleration of gravity. Weightlessness.Longitudinal and transverse waves. Ultrasound.
Dynamics, mechanical oscillations	Work and energy. Potential field, the work of conservative forces, potential energy. Kinetic energy. The law of conservation of energy. Rotational motion of a rigid body. A moment of strength. The basic equation of the dynamics of rotational motion. The equation of motion of the angular momentum. The law of conservation of the angular momentum.

The waves. Sound wave	Mechanical waves. The plane wave equation. Parameters of vibrations and waves. Energy characteristics. The Doppler effect and its use in medicine. Sound. Types of sounds. A complex tone and its acoustic spectrum. Wave resistance.Objective(physical)and subjective (biological) characteristics of sound. Infrasound. Ultrasound, the physical basis of application in medicine.
Hydrostatic. Molecular Physics	The viscosity. Methods for determining the viscosity of liquids. Stationary flow, laminar and turbulent flows. Newton's formula, Newtonian and non-Newtonian liquids. The Poiseuille formula. The Reynolds number. Features of hemodynamics in the main, resistive, capillary and venous vessels of the circulatory model. Work and warmth. The first beginning of thermodynamics. Heat capacity. An adiabatic process (Poisson's formula). The basic equation of molecular kinetic theory. The heat and motion of molecules. The first principle of thermodynamics applied to the human body. The role of nutrition and respiration. Internal energy. Internal pressure and surface tension in the fluid. Diffusion. Osmosis. Wetting Capillary phenomena.
Electricity and magnetism	Electric charges and their properties. Coulomb's law. The electrostatic field. Field strength. Power lines. Potential. Equipotential surfaces. The relationship between tension and potential. Conductors in an electrostatic field. Electrical capacity. Capacitors, their connection. The energy of the electric field. Current strength and current density. Electromotive force (EMF.). of the EMF source. Ohm's law for a homogeneous, inhomogeneous section of the circuit, for a closed circuit. The Kirchhoff rules. Ohm's laws and Kirchhoff's rules for direct current. Electric and magnetic fields, currents and electromagnetic fields. The total resistance (impedance) in electrical circuits. Ohm's law for alternating current and voltage. Diathermy. UHF therapy. Microwave therapy. Physical foundations of rheography and its application in medicine.
Optics	Geometric optics. The phenomenon of total internal reflection of light. Refractometry. Fiber optics. The eye is an optical system. Microscopy. Wave optics. Electromagnetic waves. The scale of electromagnetic waves. Energy characteristics of light fluxes: the flux of light radiation and the flux density (intensity). Diffraction grating. The resolution of optical devices and the eye. The polarization of light. Polarization microscopy. Polarimetry. The interaction of light with matter. Light scattering. Light absorption. The Booger-Lambert-Behr law.
Electromagnetic radiation of the optical range	Thermal radiation. Characteristics and laws of thermal radiation. The spectrum of black body radiation. The radiation of the Sun. Application of Kirchhoff's law for measuring brightness temperature. . Calculation of the radiation temperature based on the Stefan-Boltzmann law. Lasers and their application.

Atomic structure. EPR. **NMR. Ionizing radiation.**	Atomic structure. Nuclear force. Isotopes. Electronic paramagnetic resonance. Nuclear magnetic resonance. Principles of magnetic resonance imaging. Electron-positron tomography. Ultraviolet radiation and its application. X-ray radiation and its use in land management. Radioactive radiation. Detection and dosimetry of ionizing radiation

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PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA named after Patrice Lumumba RUDN University
Institute of Medicine

educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2024

Course Title	Polyclinic Therapy
Course Workload	Credits and academic hours – 8/288
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 Organization of the work of outpatient clinics. Organization of the localtherapist and general practitioner work.	1.1. The general principles of the organization of the outpatient clinics. Organization and content of work of therapeutic department clinics. 1.2. Organization of the local therapist and generalpractitioner. 1.3. The concept of standards (protocols) the management of patients in outpatient conditions. Standards (protocols) of patients with the most commondiseases in the practice of the therapist. General and specific issues of examination oftemporary disability. The procedure for referral tomedical and social expertise. Disability.
Module 2	2.1. Fever and low-grade fever in outpatient practice.Differential diagnosis. Management of patients. 2.2. Interpretation of blood count in outpatient practice,highlighting the main syndromes and initial diagnosis. Anemic syndrome. 2.3. The interpretation of urinalysis. Urinary Syndrome.Urogenital diseases in general practice. 2.4. Respiratory diseases in outpatient practice. Diseases of the circulatory system in the

Module 3	
Module 4	4.1. Rational antibiotic therapy in outpatient practice.
	4.2. Diet therapy in GP. 4.3 Diseases prevention at the stage of polyclinics.

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PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA named after Patrice Lumumba
RUDN University
Institute of Medicine

educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	**Professional DISEASES**
Course Workload	Credits and academic hours 2/72
Course contents	
Name of section discipline	**Contents**
Section 1. Occupational diseases of respiratory system. Pneumoconiosis.	**Topic 1.1** Introduction to the clinic of occupational diseases and its tasks. Issues of diagnostics and medical prevention. Principles of organization and conduct of medical examinations of workers of industrial enterprises, issues of examination of working capacity, medical examination. Pneumoconiosis, classification. Silicatoses, anthracosis, pneumoconiosis of electric welders, aluminosis, pneumoconiosis from exposure to plant dust. Berylliosis. Dust bronchitis. Professional bronchial asthma. Bronchoallergoses.
Section 2. Vibration disease. Noise sickness (chronic occupational sensorineural hearing loss).	**Topic 2.1** Definition, etiology, pathogenesis. Clinical picture of diseases associated with exposure to local vibration and whole-body vibration. Stage of disease, diagnosis, treatment, prevention, prognosis.
Section 3. Occupational diseases of the musculoskeletal system	**Topic 3.1** Occupational diseases of the musculoskeletal system caused by physical overexertion and micro-traumas, workers of industrial enterprises and agricultural industry. Arthralgia, arthritis, polyarthritis, aseptic necrosis of bone, bursitis, tenosynovitis, dyskinesia, periarthritis of the shoulder joint, shoulder epicondylitis, professional polyneuritis and radiculitis.
Section 4. Domestic poisoning	**Topic 4.1** Classification. Methods of diagnosis. Basic clinical syndromes. General principles of emergency treatment: prevention of further contact with the poison, its absorption, excretion of the poison from the body, antidotes, treatment of syndromes associated with intoxication. Acute

	carbon monoxide poisoning, amido and nitro compounds, alcohol, hypnotics and tranquilizers, acids and alkalis. Clinic, diagnosis, treatment, prevention. Intoxication by chemical substances used in the agricultural sector. Classification of pesticide due to the purposes of use, the chemical structure, ways of exposure. Acute and chronic chlorine and organophosphorus compounds poisoning, mercury organic compounds, arsenic-containing substances.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2023-2024

Course Title	**PROPADEUTICS OF INTERNAL DISEASES**
Course Workload	Credits and academic hours – 10/360
Course contents	
Course Module Title	**Brief Description of the Module Content**
Section 1. Methods of physical examination of the patient	General condition, consciousness, position, physique, assessment of the skin and mucous membranes, lymph nodes, muscular system, joints.
Section 2 Methods for examining the respiratory organs	Main complaints. Physical research methods (examination, palpation, percussion, auscultation). Instrumental research methods, laboratory research methods. Major clinical syndromes. Fundamentals of private pathology (pneumonia, COPD, bronchial asthma).
Section 3 Methods for studying the circulatory organs	Main complaints. Physical research methods (examination, palpation, percussion, auscultation). Instrumental research methods, laboratory research methods. Major clinical syndromes. Fundamentals of private pathology (AH, IHD, HF, Atherosclerosis, rheumatism, CHD).
Section 4 Methods for studying the digestive organs	Main complaints. Physical research methods (examination, palpation, percussion, auscultation). Instrumental research methods, laboratory research methods. Major clinical syndromes. Fundamentals of private pathology (gastritis, ulcer, bowel disease).

Section 5 Methods for the study of the liver and biliary tract	Main complaints. Physical research methods (examination, palpation, percussion, auscultation). Instrumental research methods, laboratory research methods. Major clinical syndromes. Fundamentals of private pathology (hepatitis, cirrhosis, cholecystitis, cholelithiasis).
Section 6 Methods for examining the kidneys and urinary tract	Main complaints. Physical research methods (examination, palpation, percussion, auscultation).
	Instrumental research methods, laboratory research methods. Major clinical syndromes. Fundamentals of private pathology (pyelonephritis, glomerulonephritis, CRF, AKI).
Section 7 Methods for the study of hematopoietic organs	Main complaints. Physical research methods (examination, palpation, percussion, auscultation). Instrumental research methods, laboratory research methods. Major clinical syndromes. Fundamentals of private pathology (anemia, leukemia).
Section 8 Methods for studying the endocrine system	Main complaints. Physical research methods (examination, palpation, percussion, auscultation). Instrumental research methods, laboratory research methods. Major clinical syndromes. Fundamentals of private pathology (thyroid diseases, diabetes mellitus).

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies/ speciality code and title

2023-2024

Course Title	Psychiatry, Medical Psychology
Course Workload	Credits and academic hours – 5/180
Course contents	
Course Module Title	**Brief Description of the Module Content**

Introduction to the discipline. General Psychiatry	Psychiatry: definition, branches of psychiatry, types of psychiatric care. Methods of treatment of mental illness. Classification of mental illnesses. Disorders of sensations, perception Disorders of perception. Classification, clinical manifestations. Violations of the associative process. Violations of thinking in terms of content. Delusions, groups of delusions. Overvalued ideas. Obsessions, classification. Group of delusions of persecution. Group of delusions of grandeur. Group of depressive delirium. Symptoms of emotional (affective) disorders. Symptoms of memory disorders. Asthenic syndrome: symptoms, stages. Delusional syndromes: varieties. paranoid syndrome. Hallucinatory-paranoid syndrome. Kandinsky-Clerambault syndrome. Delusional syndromes: varieties. paraphrenic syndrome. Delusional syndromes: varieties. Cotard's syndrome. Syndrome of dysmorphophobia-dysmorphomania. Emotional (affective) syndromes: varieties. Manic syndrome. Depressive syndrome. Depressive syndrome. Types of depression. Varieties of emotional syndromes. apathetic syndrome. Catatonic syndrome. Amnestic syndrome. Korsakov's syndrome. Catatonic hebephrenic syndrome. Psychoorganic syndrome. Dementia: varieties. Disorders of drives: varieties.

	Phobic syndrome. Types of obsessions.

Psychiatric nosology	Oligophrenia: definition, classification, methods of treatment and rehabilitation. Oligophrenia: definition, clinical variants. Mental disorders in neurosyphilis: varieties, methods of diagnosis, treatment and rehabilitation. Syphilis of the brain: definition, clinical forms, methods of diagnosis and treatment. Progressive paralysis: definition, clinical forms, methods of diagnosis and treatment. Epilepsy: definition, clinical manifestations, methods of diagnosis and treatment. Paroxysmal disorders in epilepsy: classification. Non-paroxysmal disorders in epilepsy. Mental disorders in cerebral vascular lesions: varieties, clinical manifestations, methods of treatment. Mental disorders in cerebral atherosclerosis, clinical manifestations, methods of treatment. Mental disorders in hypertension: clinical manifestations, methods of treatment. Presenile (involutional) psychoses: definition, clinical varieties, methods of diagnosis and treatment. Alzheimer's disease: definition, clinical forms, methods of diagnosis and treatment. Mental disorders in atrophic diseases of the brain: varieties, methods of diagnosis and treatment. Alcoholism: definition, stages, varieties, methods of treatment. Alcoholic psychoses: classification, clinical manifestations. Alcoholic delirium: definition, classification, clinical manifestations. Alcoholic hallucinosis, alcoholic paranoid: definition, classification, clinical manifestations. Alcoholism: definition, stages, methods of treatment. pathological intoxication. Drug addiction: definition, classification, clinical manifestations, methods of treatment and rehabilitation. Substance abuse, drug addiction: definition, classification, clinical manifestations, methods of treatment. Mental disorders in infectious diseases: classification, varieties, clinical manifestations, methods of treatment. Mental disorders in AIDS: clinical manifestations, methods of treatment and rehabilitation. Mental disorders in somatic diseases: main clinical manifestations, methods of treatment. Somatopsychiatry. The main symptoms and syndromes of mental disorders in somatic diseases. Psychosomatics: definition. Varieties of psychosomatic pathology. Mental disorders in traumatic brain injury: varieties, clinical characteristics, methods of treatment. Schizophrenia: definition, main symptoms and syndromes of mental disorders in schizophrenia. Schizophrenia: definition. Types of the course of

	schizophrenia. forms of schizophrenia. Bipolar affective disorder (manic-depressive psychosis): definition, clinical varieties, methods of treatment. Psychogeny: definition, clinical varieties, methods of treatment. Reactive psychoses: definition, clinical varieties, methods of treatment. Hysterionic (hysterical) reactive psychoses: definition, clinical varieties, methods of treatment. Reactive depression: definition, clinical manifestations, differential diagnosis. Suicide prevention. Reactive (psychogenic) delusional psychoses: varieties, clinical manifestations, methods of treatment. Reactive psychoses: definition, clinical varieties. The concept of iatrogenic. Neuroses: definition, clinical varieties, methods of treatment. Hysterical neurosis: definition, clinical manifestations, methods of treatment. Post-traumatic stress disorder: definition, clinical manifestations, methods of treatment. Personality disorders (psychopathy): definition, criteria, classification, clinical varieties. Personality disorders (psychopathy): definition, criteria. Psychopathies of the excitable circle. Personality disorders (psychopathy): definition, criteria. Psychopathies of the inhibited circle. Anorexia nervosa and bulimia nervosa: definition, stages, clinical manifestations, methods of treatment.

Treatment of mental disorders	Methods of treatment of mental illness. Psychotropic drugs: definition, classification. Psychotherapy: definition, basic methods of psychotherapy. Antipsychotics: definition, classification, spectrum of psychotropic action of neuroleptics. Antipsychotics: definition, classification, side effects and complications in the treatment of neuroleptics. Main groups of antipsychotics, side effects. Varieties of psychomotor agitation. Methods of relief of psychomotor agitation. Tranquilizers. Definition, classification, spectrum of psychotropic action, side effects. Basic tranquilizers. Complications and side effects in the treatment of tranquilizers. Antidepressants: Definition, classification. Complications and side effects of antidepressant treatment. The main groups of antidepressants. The spectrum of action of antidepressants. Nootropics: definition, spectrum of action, main nootropic drugs, side effects of nootropics. Psychostimulants, normotimics: definitions, action spectra, side effects and complications. Main groups of anticonvulsants. Side effects and complications in the treatment of anticonvulsants. Status epilepticus: definition,
	clinical manifestations, main methods of treatment.Treatment of epilepsy: principles, main anticonvulsants. Diagnosis, types of treatment and rehabilitation of patients with mental disorders.
Medical psychology	Tasks and goals of the work of a medical psychologist in the clinic of internal diseases, in a psychiatric clinic. Methods of pathopsychological research. Methods and types of psychological psychotherapy. Features of mental activity in organic diseases of the brain. Features of memory in organic diseases of the brain. Features of thinking in schizophrenia. Features of the emotional sphere and thinking in personality disorders. Features of the work of a psychologist with cancer patients. Features of mental performance in patients with eating disorders. Features of thinking, emotions and memory in patients with epilepsy. Experiments in clinical psychology.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies/ speciality code and title

2024

Course Title	Psychology, Pedagogy
Course Workload	Credits and academic hours – 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
Introduction to Psychology	History of Psychology. The subject and methods of psychology. Branches of psychology. Categories of psychology. Functions of the psyche. Basic mental processes
Development of the psyche. Zoo psychology	Zoo psychology from ancient times to the creation of the first evolutionary doctrine. The main methods of zoo psychological research. The importance of zoo psychology in medicine
Sensation. Perception. Attention	Cognitive mental processes in the cognition of reality. Perception of objects, time of relations between objects of space, a person. Attention. Types of attention
Memory	Memory and its significance. Types of memory Basic memory processes and mechanisms. Individual features of memory. Typological features of memory. The importance of memory for human life
Thought process. Speech. Imagination	Development of thinking in ontogeny. Laws of logic and thinking. Thinking disorders. Pathopsychological and clinical classification of thinking disorders. Kinds of imagination. Pathological forms of imagination. Types and functions of speech. The ratio of thinking and speech. Speech disorders
Will	Will. The concept of the will. Volitional acts. Functions of the will. The development of the will in a person. Strong-willed personality traits

Emotions	The concept and classification of emotions. The James-Lange Theory. Emotions generated by the social environment. The role of emotions in the mental organization of a person
Personality. Motivation	The concept of personality in various psychological approaches. Personality structure. Levels, rules and ways of constructing psychological characteristics of personality.
	Analysis of general concepts about the orientation of the personality. Classification of needs in the orientation of the individual. Classification of motives in the orientation of the personality. Determination of the forms of orientation of the personality
Temperament. Character. Abilities. Intelligence	Types of temperament and their psychological characteristics. The role of temperament in activity. Character Classification of character traits. Character types. Accentuation of character. Determination of abilities. Types of abilities. Structure of abilities. Ability levels. Talent. Inclinations and abilities. Inclination
Communication. Ethics. Deontology in Medicine. Clinical aspects of communication	Relationship levels: doctor - patient; doctor - nurse; doctor - doctor; nurse - patient; nurse - nurse; doctor - administration; doctor - junior medical staff

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2024

Course Title	«Psychology of ethnic conflict»
Course Workload	Credits and academic hours - 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Introduction to the psychology of Ethnic conflict.	Topic 1. Ethnopsychology and ethnoconflictology as branches of science. Basic concepts.
	Topic 2. The essence of the ethno-social process.
	Topic 3. Diaspora and its signs.
	Topic 4. National character and mentality
	Topics 5-6. Types of cultures.
Module 2. Intercultural communication and interethnic relations	Topic 7. Social and ethnic identity
	Topic 8. Features of interpersonal and intergroup perception. Ethnocentrism. Ethnic stereotypes.
	Topic 9-10. Cultural-specific aspects of communication.
Module 3. Ethnic conflicts.	Topic 11. Causes of ethnic contradictions and conflicts. Classification of ethnic conflicts.
	Topic 12. Dynamics of ethnic conflict.
	Topic 13. Conflict interaction.
	Topic 14. Ways of regulating ethnic conflicts
Module 4. Work in a multiethnic team and prevention of ethnic conflicts.	Тема 15. Prevention of ethnic conflicts.
	Тема 16. Work in a multiethnic team.
	Тема 17. Fostering tolerance and culture of interethnic communication

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	«Public health and healthcare, Healthcare economics»
Course Workload	Credits and academic hours 5/180
Course contens	
Course module title	**Content of the module**
Section 1. Public health and health care as a discipline, scientific and medical specialty. Mastering methods and techniques for studying the state of health of the population.	Topic 1.1. Organization and stages of medical/public health research.
	Topic 1.2. Mastering methods for developing statistical material, methods for calculating and evaluating population health indicators.
	Topic 1.3. Family health in public health assessment. Methodology and program of medical and social research of the family.
Section 2. Methods for assessing the health of the population and research results.	Topic 2.1. Evaluation of the health of the population and the results of medical/public health research using average values and indicators.
	Topic 2.2. Evaluation of public health and the results of medical/public health using correlation analysis.
	Topic 2.3. Determining the required number of observations in selective studies. Small sample.
	Topic 2.4 Evaluation of public health and the results of medical/public health research using the compilation of time series and their processing.
Section 3. Morbidity of the population in the assessment of public health.	Topic 3.1. Analysis and assessment of the incidence of the population, methods and means. International classification of diseases related to health problems.
	Topic 3.2. Morbidity with temporary disability. Organization of examination of incapacity for work.
	Topic 3.3. Disability in public health assessment. The activities of the medical and social expert commission.
	Topic 3.4. Morbidity of the population in the countries of the world. World Health Organization (WHO).

Course Title	«Public health and healthcare, Healthcare economics»
Course Workload	Credits and academic hours 5/180
Course contens	
Course module title	**Content of the module**
Section 4. Demographic indicators in public health assessment.	Topic 4.1. Demography. Medical and social aspects. Mechanical movement of the population. The natural movement of the population.
	Topic 4.2. Life expectancy as an indicator of public health assessment. Features of demographic characteristics in the countries of the world. Demographic policy in the countries of the world.
Section 5. Management and organization of work of medical organizations.	Topic 5.1. Structure, tasks and functions of healthcare. Organization of outpatient and inpatient care for the urban population. The use of automated information systems in the management of healthcare institutions.
	Topic 5.2. Specialized medical care, features of the organization. Types of specialized medical care. Highly specialized and high-tech medical care.
	Topic 5.3. The system of protection of motherhood and childhood. Organization of medical and preventive care for women and children. Social support for motherhood.
	Topic 5.4. Features of the organization of medical care for workers of industrial enterprises. Federal Biomedical Agency.
	Topic 5.5. Organization of medical care for the rural population. Structure, tasks and functions of primary health care in the countries of the world.
Section 6. Fundamentals of Health Economics and health insurance. Health care management and medical personnel management.	Topic 6.1. Fundamentals of Economics and Health Planning. Evaluation of the effectiveness of organizational measures in healthcare, economic analysis of the activities of medical facilities, planning the need for medical personnel and hospital beds.
	Topic 6.2. Health financing. Forms of insurance in the countries of the world. Medical insurance in the activities of healthcare facilities.
	Topic 6.3. Fundamentals of health care management. Training of medical personnel.

Course Title	«Hygiene»
Course Workload	7/252
Course contens	
Course module title	**Content of the module**
Module 1. Theoretical and methodological foundations of the discipline "Hygiene". Public Health and the Environment.	Topic 1.1. Hygiene as a science and subject of teaching; sanitation; organization, forms and stages of state sanitary and anti-epidemic supervision. Hygienic regulation. Sanitary legislation. Methodology of hygienic regulation. Types of standards. Problems of rationing of jointly acting factors.
Module 2. Hygiene of nutrition	Topic 2.1 Rational nutrition. Hygienic nutritional standards for different population groups.
	Topic 2.2 Dietary and medical-preventive nutrition. The principles of diets and rations.
	Topic 2.3 Sanitary and hygienic expertise of products and essessment of food quality category. Sanitary and hygienic expertise of meat. Sanitary and hygienic expertise of fish.
	Topic 2.4 Sanitary and hygienic expertise of milk and dairy products
	Topic 2.5 Nutritional and biological value and signs of spoilage of vegetable products (bread).
	Topic 2.6 Preservation methods and essessment of canned food quality.
	Topic 2.7 Food poisoning: classification, clinic, methods of prevention.
	Topic 2.8 Hygiene requirements for public catering enterprises. The principle of flow of raw materials and products. Personal hygiene and medical control of the staff.
Module 3. Hygiene of populated areas	Topic 3.1 Hygiene of human settlements and dwellings. Sanitary and hygienic assessment of the rural homestead project.
	Topic 3.2 Sanitary and hygienic expertise of microclimate of residential and industrial premises. Climate and acclimatisation. Sanitary and hygienic assessment of the microclimate of the classroom.
	Topic 3.3 Hygiene of the air. The chemical composition of atmospheric air and its hygienic significance. Atmospheric and indoor air pollution. Prevention of urban air pollution. Determination and sanitary-hygienic estimation of the carbon dioxide content in the premises. Assessment of the dustiness and microbial pollution of the air.
	Topic 3.4 Solar radiation and its hygienic significance. Hygiene requirements for insolation and lighting of the premises. Determination and sanitary-hygienic assessment of natural and artificial lighting of the premises.
Module 4. Radiation hygiene	Topic 4.1 Radiometry. Radioactivity, natural radiation background. Sanitary and hygienic assessment of contamination of water, bread, washouts.
	Topic 4.2 Dosimetry. Doses of ionizing radiation (exposure, absorption, equivalent). Biological effects and standarts of exposure of different categories of population.

	Topic 4.3 Protection against external ionising radiation (principles and calculation). Equipment rules for industrial premises. Use of protective equipment against sources of ionizing radiation.
Module 5. Communal hygiene	Topic 5.1 Hygiene of water and water supply of populated areas. Significance of water for public health. Surface and underground water sources. Waterworks. Disinfection of wells and kaptazhy. Water supply systems. Sanitary and hygienic requirements for potable water. Organoleptic essessment of water.
	Тема 5.2 Self-purification of water reservoirs. Zone of sanitary protection of water supply sources. Water consumption. Scheme of household and potable water supply. Sanitary and hygienic requirements for potable water - indicators of organic water pollution, generalized, microbiological indicators, MPC of chemicals, radiation safety of potable water.
	Topic 5.3 Methods for cleaning, disinfecting and improving the quality of potable water with a centralized water supply system. Methods, comparison of their effectiveness and scope.
	Topic 5.4 Organization of water supply and sewerage in a large metropolis (Moscow).
	Topic 5.5 Soil hygiene in populated areas. Epidemiological, sanitary and chemical significance of the soil. Biogeochemical provinces. endemic diseases. Hygienic assessment of soil quality.
	Topic 5.6 Sanitary cleaning of populated areas. Cleaning systems, methods of neutralization and disposal of solid and liquid waste.
Module 6. Occupational hygiene	Topic 6.1 Occupational health, occupational hazards. Occupational diseases of workers. Harmful factors of the working environment and labor organization. Physiological bases of the labor process.
	Topic 6.2 Chemical environmental factors and their impact on the health of workers. Fundamentals, principles of hygienic regulation in industrial toxicology.
	Topic 6.3 Physical environmental factors (noise, ultra- and infrasound, laser and electromagnetic radiation) and their hygienic regulation. Classification of dust, its effect on the body. Classification of pneumoconiosis. Prevention.
	Topic 6.4 Physical environmental factors (vibration, microclimate). Hygienic regulation. Hygienic assessment of ventilation of industrial premises.
Module 7. Hygiene of children and adolescents	Topic 7.1 Hygiene of children and adolescents. Assessment of physical development (biological age). Health groups of children and adolescents.
	Topic 7.2 Assessment of physical development (methods for assessing individual and group physical development).
	Topic 7.3 Hygienic requirements for children's preschool educational institutions. Hardening methods.

	Topic 7.4 Hygienic requirements for school educational institutions. Sanitary and hygienic requirements for lighting, teaching aids, furniture and working hours of school educational institutions.
Module 8. Hygiene of Medical Treatment-prophylactic Facilities	Topic 8.1 Hospital hygiene. Hygienic principles of organization of work and planning of hospitals, features of structural and planning solutions. Requirements for the placement of hospitals, admission department. Prevention of nosocomial infections.
	Topic 8.2 Hospital hygiene. Hygiene requirements for hospital departments.

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COURSE DESCRIPTION

31.05.01 General Medicine
field of studies / speciality code and title

Course Title	Radiology
Course Workload	Credits and academic hours – 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
Introduction to medical radiology. Methods of X-ray examinations.	The use of modern radiation for diagnostics. X-rays. Irradiation from radioisotopes. Waves in ultrasonography and MRI. Their nature and properties
X-ray diagnostics of the respiratory organs	The importance of X-ray studies in medicine. Fluorography. Fluoroscopy. Direct and indirect digital radiography. Contrast studies Lungs in the X-ray image. Tomography. Plain radiography. Lobes and segments of the lungs in the X-ray image.
General X-ray semiotics of pulmonary diseases	Shadow, limited shadow and translucency, the pulmonary pattern. Dissemination. Deformation and enhancement of the pulmonary pattern. Widening of the hila.
Specific X-ray semiotics of pulmonary diseases	Foreign bodies. Rib fracture. Pneumothorax. Haemothorax. Emphysema. Polycystic disease.
Lung cancer. Classification. Types according to radiographic and morphological features.	Clinical and radiological classification. Morphological types and localization. Central cancer. Peripheral cancer. Atelectasis. Pleuritis. Metastases to the mediastinal lymph nodes.
Some forms of lung cancer: apical, mediastinal. Miliar carcinomatosis. Lung metastases.	Radiographic picture in: Pancoast tumor (apical cancer), mediastinal metastases in the unknown primary tumor, miliary carcinomatosis, metastatic lung cancer.
Pleuritis	Metastatic pleuritis. Reactive pleuritis. Homogenous high intensity shadow of pleuritis. Level of fluid.
Cardiovascular Radiology	Native and contrast-enhanced radiography. Angiography. Angiopulmonography. MSCT.
Radiographic semiotics of cardiovascular diseases.	Radiography in heart defects, in the diseases of the aorta. Coronarography in coronary artery disease.

Gastrointestinal Radiology	Plain abdominal radiography. Contrast X-ray examinations of the digestive organs. MSCT and MRI.
Radiological semiotics of the specific GIT diseases, including cancer	Contrast examinations of the esophagus, stomach, duodenum, other parts of the small intestine, barium enema. Multiple projections. Double contrast. X-ray detection of ulcers, cancers. Contrast examination of the bile ducts.
Skeletal Radiology	1. Diagnostic capabilities the techniques used to evaluate various components of the musculoskeletal system. Tomography. Fistulography. The role of MSCT and MRI.
Radiology of the diseases of the musculoskeletal system	Anomalies. Changes of the bones shape and size. Osteoporosis. Destruction. Periostitis. Pecularities of radiology of traumas. Diagnosios opf the fractures. Osteochondrosis. Bone tumors, bone sarcomas.
Examination of the patients with lung diseases in X-ray room.	Fluoroscopy of the lungs. Chest fluorography. Chest radiography. Tomography.
Examination of the patients with lung diseases in an X-ray room.	Examination of the esophagus and stomach with Barium meal. Barium enema with double contrast.
Radiotherapy	Types of radiotherapy installations. Topometry. Types of radiotherapy. One-field and multiple-fields irradiation. Brachytherapy and distant radiotherapy.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2023-2024

Course Title	Reproductive health
Course Workload	Credits and academic hours – 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 Urgent conditions in gynecology: "Acute stomach".Sepsis.	Urgent conditions in gynecology. The conceptof "acute stomach". Perforation of the uterus. Disturbed ectopic pregnancy. Ovarianapoplexy. Twist the legs of the ovarian tumor. Violation of nutrition of the myomatous node. Rupture of the wall of the purulent focus of thepelvic organs. Pelvioperitonitis. Peritonitis Sepsis: etiology, pathogenesis, clinical picture,diagnosis, treatment, prevention.
Module 2 Methods of birth control in the modern world. Abortion is dangerous and safe. Post- abortion	Family planning. tasks and methods. Abortion: dangerous and safe. Classification, indications, and methods. Medical abortion scheme. Methods of late-term termination of pregnancy. Pre-gravidar training. Classification of methods of contraception. Emergency contraception. Infertile marriage: classification, diagnosis,methods of overcoming. Assisted reproductive technologies.

Module 3 Peri – and postmenopausaldisorders	Pathology of the perimenopausal period. Early, medium-term and late manifestations of menopausal syndrome. The STRAW+10 scale. A window of therapeutic opportunities.
	Features of menopausal hormone therapy: classification, regimens, indications, contraindications.
Module 4 Benign diseases of the mammary glands. Classification, clinic of various forms of DMC,diagnosis, treatment. Prevention of cancer. Screening methods of examination.	Benign breast dysplasia: definition, etiology, pathogenesis, risk factors, classification, clinical anddiagnostic criteria, treatment, prevention. Key risk factors, etiological factors, and cancer prevention measures. Pathogenesis, stages of endometrial, cervical, ovarian, breast cancer, early and late clinical symptoms of endometrial, cervical, ovarian, and breast cancer; diagnostic methods, metastasis pathways.
Module 5 Pelvic pain. Differential diagnosis of gynecological and extragenitaldiseases associated with pelvic pain syndrome.	Chronic pelvic pain syndrome.Differential diagnosis. Endometriosis. Definition of the concept, etiology,pathogenesis, classification, features of the clinical picture, conservative treatment, indications for surgical treatment.

Developers:

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RUDN University

Institute of Medicine

educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	**Rhetoric**
General labour intensity	**Credits and academic hours 2 /72 hours**
Contents of the section	
Course Module Title	**Brief Description of the Module Content**
Section 1. **Rhetoric as a discipline**	Topic 1.1. Rhetoric as a scientific discipline and as the art of eloquence
Section 2. Performance	Topic 2.1. Main principles of communication. Speech techniques
Section 3. The art of discussion	Topic 3.1. Forms of polemical dialogues.The strategy dispute. Tactical (polemical) methods of conducting a dispute
Section 4. **Business rhetoric**	Topic 4.1. Business rhetoric: basic concepts

Section 5. **The concept of argumentation.** **Argumentation strategies and tactics**	Topic 5.1. The concept of argumentation. Goals and methods of argumentation. General rules and techniques for effective argumentation
Section 6. **The concept of speech impact**	Topic 6.1. Speech impact. Methods of speech influence on the personality
Section 7. **Strategies and tactics of persuasion**	Topic 7.1. Strategies and tactics of persuasion in educational and administrative communication
Section 8. **Strategies for tolerant educational and administrative communication**	Topic 8.1. Strategies for tolerant educational and administrative communication

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

Name of the Discipline	***Russian Language as foreign language***
General labour intensity	**4 /144**
Contents of the section	
Sections	**Topics**
SECTION 1. OBJECT AND ITS CHARACTERISTICS	Topic 1.1. Structure of an object
	Topic1.2. Qualitative and quantitative characteristics, properties of the object
	Topic 1.3. The function of an object
	Topic 1.4. Classification of objects
SECTION 2. ORGANISM AS A BIOLOGICAL OBJECT AND ITS CHARACTERISTICS	Topic 2.1. General characteristics of the organism
	Topic 2.2. Life cycle of an organism
	Topic 2.3. General characteristics of the disease caused by the body
SECTION 3. PHYSIOLOGICAL PROCESS AND ITS CHARACTERISTICS	Topic 3.1. General characteristics of the process
	Topic 3.2. Staged process.
	Topic 3.3. Process mechanisms.

Developers:

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educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	**Russian Language and Speech Culture**
Course Workload	Credits and academic hours **2/72 hours**
Contents of the section	
Sections	**Topics**
Section 1. **CULTURE OF EDUCATIONAL-SCIENTIFIC AND EDUCATIONAL-PROFESSIONAL COMMUNICATION**	Topic 1.1. Language and speech. Topic 1.2. A culture of speech. Topic 1.3. Basic concepts of the course. Topic 1.4. Literary language and literary and linguistic norm. Topic 1.5. Norm types. Topic 1.6. Speech and its characteristics. Topic 1.7. speech impact. Topic 1.8. Methods of persuasion. Topic 1.9. Basic norms and rules of non-verbal and speech etique
Section 2. **CULTURE OF PROFESSIONAL AND BUSINESS COMMUNICATION**	Topic 2.1. Professional business communication: essence, features, innovative technologies, means. Topic 2.2. Communicative portrait and communicative acmeogram of a specialist. Topic 2.3. Oral professional and business communication: a general concept, basic communicative forms and their features. Topic 2.4. Written professional speech of a doctor. Topic 2.5. Innovative infocommunication technologies of professional and communicative interaction.

	Topic 2.6. Tolerant intercultural professional and business communication: basic principles and strategies.

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Name of the Discipline	***Russian Language for Foreign students***
General labour intensity	**20/720 hours**
Contents of the section	
Sections	**Topics**
SECTION 1 Learning to talk about diseases (patient's pathological state)	Topic 1. Etiology of the pathological state
	Topic 2. General characteristics of the pathological state
	Topic 3. Disease's clinical pattern
	Topic 4. Symptoms and their characteristics
SECTION 2. The development of disease (pathological state)	Topic 1. Methods of disease treatment
	Topic 2. Use of medicine
	Topic 3. Effectiveness of the use of medicine

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title 2023-2024

Course Title	Telemedicine
Course Workload	Credits and academic hours – 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
Section 1 Introduction to telemedicine	**Topic 1.1** Basic term. the goals of telemedicine today **Topic 1.2** The telemedicine as a new form of healthcare organization
Section 2 technological equipment of telemedicine activities.	**Topic 2.1** Practical experience of leading telemedicine centers. **Topic 2.2** An encoding and decoding information standards
Section 3 scenarios of telemedicine activities	**Topic 3.1** Ethical and deontological aspects of telemedicine **Topic 3.2** Hardware and software of telemedicine

Developers:

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educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2023-2024

Course Title	**TOPICAL ISSUES IN NEONATOLOGY**
Course Workload	Credits and academic hours **- 2 credits (72 academic hours)**
ourse contents	
Course Module Title	**Brief Description of the Module Content**
Module 1 Introduction to neonatology	**1.1.** Basic concepts of neonatology. Perinatal history. Neonatal risk groups. Anatomical and physiological features and methods of medical examination of the newborn.
	1.2. Adaptation of the newborn (borderline, transient states).
	1.3. Neonatal screening.
	1.4. The premature newborn.
Module 2 Perinatal pathology of the nervous system and birth trauma	**2.1.** Perinatal asphyxia, hypoxic-ischemic encephalopathy and its consequences.
	2.2 Birth trauma.
Module 3 Diseases associated with metabolic disorders	**3.1.** Neonatal jaundice (hyperbilirubinemia).
	3.2. Hemorrhagic disease of the newborn.
Module 4 Neonatal pulmonology	**4.1.** Neonatal respiratory distress syndrome.
	4.2. Bronchopulmonary dysplasia (BPD).
	4.3. Congenital pneumonia.
Module 5 Perinatal infections.	**5.1.** Neonatal infections of the skin and subcutaneous fat, omphalitis, conjunctivitis.
	5.2. Neonatal sepsis.

	5.3. Congenital (intrauterine) infections.

Developers:

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COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2024

Course title	Topographic anatomy and operative surgery
Course Workload	Credits and academic hours - 6 credits (216 Hours)
Course contents	
Course Module Title	**Brief Description of the Module Content**
Topographic anatomy of the extremities	Topographic anatomy of the shoulder girdle areas, of the axillary region. Topographic anatomy of the arm, ulnar area, forearm, hand. Surgical anatomy of the shoulder joint, elbow joint, wrist joint. Topographic anatomy of the gluteal region, thigh, knee region, leg, calcaneal region, ankle joint region, foot. Surgical anatomy of the hip joint, knee joint, ankle joint.
Topographic anatomy of the head, neck, thorax	Topographic anatomy of the head. Cranial vault. Meninges and intermembranous space. Face.Superficial and deep lateral face regions. Topographic anatomy of the neck. Fascias and cellular spaces of the neck. Submandibular triangle. Sternoclavicular-mastoid region. Carotid triangle. Scaleno-vertebral triangle. Lateral region of a neck. Surgical anatomy of the neck organs: esophagus, trachea, thyroid gland. Topographic anatomy thorax. The mammary gland. Topography of intercostal spaces. Thoracic cavity. Surgical anatomy of the lungs. Mediastinum. Surgical anatomy of organs of the anterior and posterior mediastinum. Surgical anatomy of the diaphragm.

Topographic anatomy of the abdomen, pelvis, perineum.	Anterolateral wall of the abdomen. Weak points of the anterior abdominal wall. Surgical anatomy of the inguinal canal. Surgical anatomy of the inguinal, umbilical and femoral hernias. Abdominal cavity. Peritoneum. Ligaments, burses, canals, sinuses, large and small epiploons. Surgical anatomy of organs of the upper abdomen: the stomach, duodenum, liver, gallbladder and
	extrahepatic bile ducts, spleen, pancreas. Surgical anatomy of organs of the lower floor of the abdominal cavity: the small intestine, large intestine. The back wall of the abdomen. Retroperitoneal space. Fascias and cellular spaces. Surgical anatomy of organs and neurovascular structures: the kidney, ureters, adrenal glands, abdominal aorta, inferior vena cava, thoracic duct. Fascias, cellular spaces. Surgical anatomy of organs of the male and female pelvis. Topographic anatomy of the perineum. Fascias, cellular spaces. Surgical anatomy of organs of the perineum in males and females.
Operative surgery of the extremities	Surgical instruments. Basic operational techniques: separation of tissues, stop bleeding, put on and removal of skin nodes sutures, tying surgical knots. Primary surgical treatment of wounds of the body and limbs. Stop bleeding and restore blood flow. Vascular suture. Tendon suture. Nerve suture.
Operative surgery of the head, neck, thorax	Primary surgical treatment of head wounds. Trepanation of the skull. Operations on the thyroid gland. Tracheostomy. Operations in phlegmons and abscesses of the neck. Topographic-anatomic substantiation of incisions.Operations on the thyroid gland. Breast surgery. Principles of surgical interventions on lungs, heart, esophagus.
Operative surgery of the abdomen, pelvis, perineum	Topographic and anatomical aspects of surgical interventions on the anterior abdominal wall and abdominal organs. Operations on the abdominal organs. Revision of the abdominal cavity in penetrating wounds. Appendectomy. Operations on the stomach. Intestinal suture. Intestinal anastomoses. Suturing wounds of the stomach, small intestine and colon. Resection of the small intestine. Endoscopic surgery on the abdominal organs. Cholecystectomy. Appendectomy. Herniorrhaphy. Topographic anatomy and operative surgery of the pelvis. Operations on the pelvic organs.

Developers:

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Institute of Medicine

educational division - faculty/institute/academy

COURSE DESCRIPTION

23.05.01 General Medicine

field of studies / speciality code and title

2024

Course Title	TRAUMATOLOGY AND ORTHOPEDICS
Course Workload	Credits and academic hours – 6/216
Course contents	
Course Module Title	**Brief Description of the Module Content**

Section 1 Traumatology. Principles of pediatric and adult traumatology, Injuries to the hip joint, femur, Injuries to the knee joint, lower leg, foot, Upper limb injuries, Open, complicated, gunshot fractures, Combined, multiple, combined injury. Traumatic brain injury, Spinal injuries, Pelvic injuries, Chest injuries	Traumatology and orthopedics (historical reference). Types of injuries and organization of trauma care. Methods of examination. The main methods of treatment in traumatology and orthopedics. Regeneration of bone tissue. Classification of fractures of the proximal femur, hip diaphysis. Clinic, treatment. Traumatic synovitis, hemarthrosis. Damage to the menisci, ligamentous apparatus of the knee joint.Dislocation of the patella. Fracture of the patella. Intra-articular fractures of the condyles of the femur and tibia. Clinic, diagnostics. Treatment. The role of arthroscopy in the treatment of knee joint injuries. Damage to the shoulder blade. Fracture of the collarbone. Dislocations of the collarbone. Fractures of the humerus. Damage to the elbow joint. Fractures, fractures of the forearm bones. Fracture of the radius in a typical place. Fractures and dislocations of the bones of the hand. Clinic, diagnosis, treatment. Features of medical care at the prehospital and hospital stages. Traumatic shock. Thromboembolism. Fat embolism. Clinic. Prevention. Polytrauma. Classification. Tactics of treatment at the stages of evacuation.
	Concussion, brain injury. Craniocerebral hematomas. Clinic, diagnosis, treatment. Dislocations and fractures of vertebral bodies. Compression fractures. Complicated fractures. Clinic, diagnosis, treatment. Marginal fractures. Fractures of the pelvic ring. Fractures of the acetabulum. Complicated fractures. Clinic, diagnosis, treatment. Fracture of the sternum. Fractured ribs. Hemo-, pneumothorax. Clinic, diagnosis, treatment.

Section 2 Orthopedics. Deforming arthrosis, arthritis, Endoprosthetics, Osteochondrosis of the spine, Deformations of the musculoskeletal system, Bone tumors, Osteochondropathy, Children's orthopedics, Osteoarticular tuberculosis, poliomyelitis, Osteoporosis. Modern views on the problem and treatment.	Primary, secondary deforming arthrosis of large joints. Rheumatoid, gouty, psoriatic arthritis. Clinic, diagnosis, treatment. Modern types of endoprostheses of large joints. Friction pairs. Cement, cement-free. Indications, contraindications, complications. Clinic, diagnosis, treatment, prevention. Spondylolisthesis. Spondylodesis Deformities of the foot. Valgus deformity of the 1st toe. Flat-valgus foot. Varus, valgus deformities of the lower leg. Treatment of post-traumatic deformities of long tubular bones. Tumors of cartilage tissue. Tumors of bone tissue. Soft tissue tumors. Clinic, treatment. Legg-Calve-Perthes disease, Koenig disease, Osgood-Schlatter disease, Kinbeck disease, Calve disease, Scheuermann-Mau disease, Keller osteochondropathy 1,2. Clinic, diagnosis, treatment. Congenital muscular torticollis. Clubfoot. Myopia. Osteogenesis imperfecta. Clinic, diagnosis, treatment. Tuberculosis of the joints, tuberculous spondylitis. Clinic, diagnosis, treatment. Treatment of a paralytic foot. Disorders of bone mineral metabolism. Clinic, diagnostics. Complications of osteoporosis Modern approaches to the treatment of osteoporosis and its complications.

Developers:

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N.V. Zagorodniy

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Federal State Autonomous Educational Institution of Higher Education
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Institute of Medicine

educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title **2023-2024**

Course Title	**Urology**
Course Workload	Credits and academic hours – **2/72**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Methods of research of the urological patients	Symptoms of urological disorders of urination disorders. Qualitative and quantitative changes in urine. General clinical and laboratory research methods. Instrumental and endoscopic methods for the study of the urological patient. X-ray methods of examination: review and / in urography, cystography, urethrography, retrograde and antegrade pyelography-ultrasound of the kidneys, bladder, prostate, genitals. Multispiral computed tomography of the kidneys, retroperitoneal space of the bladder, pelvis, prostate. Magnetic resonance imaging of the kidneys, bladder, prostate, renal angiography, venokavagrafiya. Radioisotope methods for the study of the kidneys, parathyroid glands, testicles.
Anomalies of the genitourinary system	Fundamentals of embryology of the urinary and reproductive systems. Classification of kidney abnormalities. Ultrasound and X-ray diagnostic methods. Anomalies of the ureters, bladder and urethra. Classification, treatment. Anomalies of the reproductive system, classification, diagnosis, treatment.

Nonspecific inflammatory diseases of the genitourinary system	Pyelonephritis, etiology, pathogenesis, clinic, diagnostics, classification, treatment principles, perinephritis, nephrosclerosis, pyonephrosis, cystitis, urethritis, prostatitis, epididymoorchitis, etiology, pathogenesis, clinic, diagnosis,

	treatment.
Urolithiasis disease	Etiology, pathogenesis, clinic, diagnosis of urolithiasis. Theories of stone formation. Differential diagnosis of coral stones, bilateral stones of the kidneys. Contact and remote methods of crushing stones. Surgical treatment of urolithiasis. Prevention
Genitourinary trauma	Kidnay injuries: open, closed, clinic, diagnosis, treatment. Injuries to the ureters. Mechanism, diagnosis, treatment. Damage to the bladder and urethra. Etiology diagnosis, clinic and treatment. Damage to the external genital organs, diagnosis and treatment
Tumors of the genitourinary system	Tumors of the kidneys. Classification, diagnosis, clinic and treatment. Wilms tumor. Features of treatment. Tumors of the pelvis and ureter, urinary bladder. TNM classification. Diagnosis and treatment of testicular tumors. classification, clinic, diagnosis and treatment. Prostate cancer, diagnosis and treatment.
Acute and chronic renal failure	Etiology, pathogenesis, clinic and diagnosis of acute renal failure. Causes of CRF, classification, treatment principles. Hemodialysis. principles of device "artificial kidney". Kidney transplantation. Indications operation technique

Developers:

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A.A. Kostin

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Наименование дисциплины	«History of Russia»
Объём дисциплины, ЗЕ/ак.ч.	4/144
СОДЕРЖАНИЕ ДИСЦИПЛИНЫ	
Разделы	**Темы**
I. Theory and methodology of Historical Science	1.1 History as science
II. Ancient Rus in Medieval age	2.1 Ancient Rus’ 2.2 Feudal fragmentation and struggle for independence 2.3 Formation of the Russian united state
III. Russia on the brink of New Age and in the New Age	3.1 Russia in the XVI century. Ivan the Terrible 3.2 Time of Troubles and the beginning of Romanov’s reign 3.3 Peter I and his age 3.4 The age of Palace coups 3.5 The Russian Empire in the second half of the XVIII century 3.6 Russia in the first quarter of the XIX century. Paul I. Alexander I. Patriotic war of 1812 3.7 Decembrists movement. Reign of Nicholas I 3.8 Alexander II and the era of reforms 3.9 Russian Empire during the reign of Alexander III 3.10 Features of the development of capitalism in Russia (the last quarter of the XIX century.)
IV. Russia and USSR in contemporary times	4.1 Russian Empire in the beginning of XX cent. Nicholas II. 4.2 Revolutions in Russia 4.3 Domestic policy of Soviet Russia and the USSR in the prewar period 4.4 The USSR during the great Patriotic war (1941-1945) 4.5 Postwar years. The beginning of Khrushchev's rule. 4.6 Thaw as a special stage of development of the USSR. 4.7 USSR under L. Brezhnev 4.8 USSR in 1985-1991. Perestroika. 4.9 Collapse of the USSR and the creation of CIS 4.10 Formation of modern Russia. Vladimir Putin. 4.11 The role of RUDN as a "soft power" in the international relations

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educational division -faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine
field of studies / speciality code and title

Course Title	Fundamentals of military training. Life safety
Course Workload	Credits and academic hours - 4/144
Course contents	
Course Module Title	**Brief Description of the Module Content**
Section 1 Life safety.	Topic 1.1 Fundamentals of human life safety: essence and content
	Topic 1.2 Fire safety
	Topic 1.3 Anti-terrorism security
	Topic 1.4. Anti-corruption and prevention of corruption risks
	Topic 1.5. Healthy lifestyle
	Topic 1.6. Personal information security
	Topic 1.7. Human life safety in emergency situations
	Topic 1.8. Civil defense as a system of nationwide measures to protect the population from dangers
	Topic 1.9. Basics of labor protection
Section 2 Basic Military Training. Life Safety	Topic 2.1. Radiation, chemical and biological protection
	Topic 2.2. Fundamentals of tactics of combined arms units
	Topic 2.3. Fire training
	Topic 2.4. Fundamentals of engineering support and communication organization
	Topic 2.5. Drill
	Topic 2.6. General military regulations of the RF Armed Forces
	Topic 2.7. Legal basis for state defense
	Topic 2.8. Military-political training
	Topic 2.9. First aid with elements of tactical medicine
	Topic 2.10. Military topography. Unmanned aerial vehicles

Developers:

The discipline is studied in the first year of all profiles and specializations EP HE

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*educational division - faculty/**institute**/academy*

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

Course Title	Topographic anatomy and operative surgery
Course Workload	Credits and academic hours - 6 credit points (216 Hours)
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Topographic anatomy of the extremities	Theoretical foundations of topographic anatomy. Topographic anatomy and operative surgery as an educational discipline and its place in the training of doctors. Applied anatomy and its main types. Fascia, cellular spaces and their clinical significance. **Topographic anatomy of the upper limb:** Regions, external landmarks, division into regions, layers, blood vessels, nerves and neurovascular bundles. Surgical anatomy of joints. **Topographic anatomy of the lower limb:** Regions, external landmarks, division into regions, layers, blood vessels, nerves and neurovascular bundles. Surgical anatomy of joints.
Module 2. Topographic anatomy of the head, neck, thorax	**Topographic anatomy of the head:** Divisions and regions. External landmarks. Vault of the skull. Features of the structure of soft tissues and bones of the cranial vault. Features of arterial blood supply and venous outflow of the head. Meninges of the brain and intermeningeal spaces. Sinuses of the dura mater. **Topographic anatomy of the neck:** Regions and triangles of the neck. Layers, fascia and cellular spaces. Connections between the cellular spaces of the neck and the cellular spaces of the head, chest and upper limb. Features of arterial blood supply and venous outflow of the neck. Surgical anatomy of the neck organs: esophagus, trachea, thyroid gland. **Topographic anatomy of the thorax:** Regions, divisions and areas. Chest wall, chest cavity. Pleura, pleural sinuses. Surgical anatomy of the lungs. Clinical anatomy of the heart. The mammary gland. Mediastinum. Topography of the esophagus, trachea, aorta and vena cava,

	phrenic and vagus nerves, lymph nodes and thoracic lymphatic duct.
Module 3. Topographic anatomy of the abdomen, pelvis, perineum.	**Topographic anatomy of the abdomen**: Regions. External relief, landmarks. Division into departments and areas. Blood vessels, lymphatic vessels and nerves. Weak spots in the abdominal wall. Linea alba and umbilical ring. Concepts of the abdominal cavity, abdominal cavity and peritoneal cavity. Ligaments, bags, canals, sinuses, greater and lesser omentum. Surgical anatomy of the organs of the upper floor of the abdominal cavity. Surgical anatomy of the organs of the lower floor of the abdominal cavity. Muscular-aponeurotic and fascial formations of the posterior abdominal wall. Groin area. Retroperitoneal space. Surgical anatomy of organs and neurovascular formations. **Topographic anatomy of the pelvis.** Regions, walls, openings, bone-ligamentous base, muscles, pelvic openings. Fascia and cellular spaces. Floors of the pelvis. Topography of the male and female pelvis. Organs of the male and female pelvis. Arteries, veins, venous plexuses of the pelvis. Sacral nerve plexus, borderline sympathetic trunk, lymphatic system. **Topographic anatomy of the perineum**. Regions. Layers. Topography of the male and female perineum. Male and female external genitalia.
Module 4. Operative surgery	Operative surgery: content and methods of study. The basics of the doctrine of surgery. Modern trends and prospects of operative surgery. Preparation for surgery and anesthesia. General surgical technique. Surgical instruments. Fundamentals of surgical transplantology. **Operative surgery of the extremities.** Primary surgical treatment of limb wounds. Limb amputation. Operations on bones and joints of extremities. Operations on the blood vessels of the extremities (arteries, veins). **Operative surgery of the head, neck, thorax**. Primary surgical treatment of wounds of the head, neck, thorax. Operations on the brain and facial parts of the head. Operative access to organs and triangles of the neck. Operations on the neck organs. Operations on the blood vessels of the neck. Operative approaches to the organs of the thorax cavity. Principles of surgical interventions on the lungs, heart, thorax esophagus. Thorax operations. Surgery mammary gland.

	Surgical surgery of the abdomen, pelvis, perineum. Operative approaches to the abdominal organs: traditional, endoscopic. Surgical interventions on the gastrointestinal tract. Intestinal suture. Intestinal anastomoses. Anatomical and physiological basis. Kinds. Seam requirements. Surgical interventions on the organs of the retroperitoneal space. Surgical interventions on the pelvic and perineal organs. Hernias of the anterior abdominal wall, hernia repair.

Developers:

Associate Professor of the Department of Operative surgery
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Titarov D.L.

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The course instruction is implemented within the professional education programme of higher education: “General Medicine”
Recommended by the Didactic Council for the Education Field of:
31.05.01 General Medicine

Name of the discipline		“Service-learning”	
Course Workload, credits/ac.h.		2/72	
COURSE CONTENTS			
Course module title		**Course module contents (topics)**	
Module 1.	Introduction to social project design.	1.1	Reflection.
		1.2	Survey.
Module 2.	Analysis of the situation and problem definition.	2.1	Reflection.
		2.2	Self-assessment.
		2.3	Peer assessment.
		2.4	Supervisor assessment.
Module 3.	Development of a hypothesis for project solution.	3.1	Reflection.
		3.2	Self-assessment.
		3.3	Peer assessment.
		3.4	Supervisor assessment.
Module 4.	Development and defense of the project passport.	4.1	Defense of the project passport.
		4.2	Reflection.
		4.3	Self-assessment.
		4.4	Peer assessment.
		4.5	Supervisor assessment.
		4.6	Community assessment.
Module 5.	Implementation of a public project.	5.1	Self-assessment.
		5.2	Peer assessment.
		5.3	Supervisor assessment.
		5.4	Community assessment.
		5.5	Reflection.
Module 6.	Defense of results, summarizing and reflecting on activities.	6.1	Defense of project implementation results.
		6.2	Community assessment.
		6.3	Evaluation of the project report.
		6.4	Reflection.

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RUDN University

Medical Institute

educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 GENERAL MEDICINE

field of studies / speciality code and title

2024.

Course Title	**“Basic Military Training. Life Safety"**
Course Workload	4/144
Course contents	
Course Module Title	**Brief Description of the Module Content**
Section 1 Life safety.	Topic 1.1 Fundamentals of human life safety: essence and content
	Topic 1.2 Fire safety
	Topic 1.3 Anti-terrorism security
	Topic 1.4. Anti-corruption and prevention of corruption risks
	Topic 1.5. Healthy lifestyle
	Topic 1.6. Personal information security
	Topic 1.7. Human life safety in emergency situations
	Topic 1.8. Civil defense as a system of nationwide measures to protect the population from dangers
	Topic 1.9. Basics of labor protection
Section 2 Basic Military Training. Life Safety	Topic 2.1. Radiation, chemical and biological protection
	Topic 2.2. Fundamentals of tactics of combined arms units
	Topic 2.3. Fire training
	Topic 2.4. Fundamentals of engineering support and communication organization
	Topic 2.5. Drill
	Topic 2.6. General military regulations of the RF Armed Forces
	Topic 2.7. Legal basis for state defense
	Topic 2.8. Military-political training
	Topic 2.9. First aid with elements of tactical medicine
	Topic 2.10. Military topography. Unmanned aerial vehicles

SUPERVISOR EP HE:

Position,	Signature	Surname/Name

Federal State Autonomous Educational Institution of Higher Education
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA
RUDN University

Medical Institute

educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 GENERAL MEDICINE

field of studies / speciality code and title

2024

Course Title	**"Fundamentals of Russian statehood"**
Course Workload	Credits / academic hours 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
Section 1. What is Russia?	Topic 1.1. The country in its spatial, human, resource, Ideological, symbolic and normative-political dimension. Objective and characteristic data about Russia, its geography, resources, economy. Population, culture, religions and languages. Current situation in Russian regions.
	Topic 1.2. Russia: trials and heroes. Outstanding personalities (“heroes”). Key trials and victories of Russia reflected in its modern stories.
Section 2. Russian as a civilization state	Topic 2.1. Civilization approach: opportunities and limitations. Historical, geographical, institutional foundations for the formation of Russian civilization. Conceptualization of the concept of “civilization”.
	Topic 2.2. Philosophical understanding of Russia as a civilization. The role and mission of Russia in the works of various domestic and foreign philosophers, historians, politicians, figures culture.
Section 3. The Russian worldview and the values of the Russian civilization	Topic 3.1. Worldview and identity. Value challenges of modern politics, Concept of worldview in social sciences.
	Topic 3.2. Value principles (constants) of Russian civilization. “Systemic model of worldview” and its representation.
Section 4. The Political structure of Russia	Topic 4.1. Fundamentals of the constitutional system of Russia. The principle of separation of powers and democracy. Features of the modern Russian political class.
	Topic 4.2. Genealogy of leading political institutions, their history, causes and consequences of their transformation. Levels of organization of power in the Russian Federation. State projects and their significance (key sectors, personnel, social sphere).
Section 5. Challenges of the future and Russia's development	Topic 5.1. Current challenges and problems of Russian development. Global trends and features of world development. Technological risks, environmental challenges and economic shocks. The sovereignty of the country and its place in the scenarios for the future development of the world and the Russian civilization.

Course Title	"Fundamentals of Russian statehood"
Course Workload	Credits / academic hours 2/72
Course contents	
Course Module Title	**Brief Description of the Module Content**
	Topic 5.2. Scenarios for the development of Russian civilization. Stability, mission, responsibility and justice as value guidelines for the development and prosperity of Russia.

Federal State Autonomous Educational Institution of Higher Education
PEOPLES' FRIENDSHIP UNIVERSITY OF RUSSIA
RUDN University

Medical Institute

educational division - faculty/institute/academy

COURSE DESCRIPTION

31.05.01 General Medicine

field of studies / speciality code and title

2024 г.

Course Title	**«History of Religions in Russia»**
Course Workload	**2/72**
Course contents	
Course Module Title	**Brief Description of the Module Content**
Module 1. Historical and Religious Studies Section	**Topic 1.1** What is religion. The role and significance of religion in history and in the life of society. Religiosity. Historically early forms of religion. Religions and denominations. Religion in non-written societies and in the Ancient World.
	Topic 1.2 Prehistory of Christianity: Middle East in the I millennium BC. Old Testament Judaism. Judaism of the Second Temple period. Formation and codification of the Old Testament canon. Judaism and antiquity. Modern Judaism.
	Topic 1.3 Emergence of Christianity. Formation of the New Testament canon. Creed. Christian doctrine. Ancient Eastern churches. Christianity before the separation of churches.
	Topic 1.4 The Great Schism. Features of Eastern and Western Christianity. World Orthodoxy. Catholicism. Protestantism. Local Orthodox Churches. Ancient Eastern Churches.
	Topic 1.5 Emergence of Islam. The Koran and the Sunna. Pillars of Islam and foundations of faith. Sunnism, Shiism, Kharijism, Sufism. Spread of Islam. Modern Islam.
	Topic 1.6 Buddhism: origins and main ideas. Theravada, Mahayana, Vajrayana. The main Buddhist texts. Buddhism in Tibet and Central Asia. Modern Buddhism.
	Topic 1.7 Religious situation in the modern world. New religious movements. Religious radicalism and extremism. Risks and threats in the religious sphere.
Module 2. Historical aspects of the formation of Russia as a multi-confessional state-civilization	**Topic 2.1.** From Ancient Russia to the Russian State. Baptism of Alania. Baptism of Russia. Acceptance of Islam by the peoples of Volga Bulgaria. Formation of a common cultural space. Russia and the Horde. The struggle against the

	expansion of the Crusaders. Formation of a unified Russian state. Establishment of autocephaly of the Russian Church.
	Topic 2.2. Russia in the XVI-XVII centuries: from the Grand Duchy to the Tsardom. Russia as a multi-ethnic and multi-confessional power. Establishment of patriarchy. The role of the Russian Church in overcoming the Turmoils. The reforms of Patriarch Nikon and the emergence of the Old Believers. Integration of peoples traditionally practicing Islam. Development of Orthodox and Muslim clergy. Missionary work and Christianization in the context of Russian geographical discoveries.
	Topic 2.3. Russia in the late XVII-XVIII centuries: from tsardom to empire. Church reform of Peter the Great. Strengthening of religious tolerance. Recognition of Buddhism. The Russian Empire in the XIX - early XX centuries. Religious life in the early XX century.
	Topic 2.4. Russia in the "years of great upheavals". Religion in Soviet society. The All-Russian Local Council of 1917 and the restoration of patriarchy. Decree on the separation of church from state and school from church. Renewalism. The policy of the Soviet state in relation to religion. The role of religious organizations in the Great Patriotic War. Revival of religious life in the 1980s-1990s.
	Topic 2.5. Religious life in modern Russia. State-religious and interreligious relations. Traditional religions of the Russian Federation.
Module 3. Religious Traditions of Russia and Traditional Russian Spiritual and Moral Values	**Topic 3.1.** Man and his place in the world. Christian, Islamic, Buddhist and Jewish religious anthropologies. Body and consciousness. Birth and death. The value of man's earthly life and its meanings. Human dignity. Religion and ethics. Posthumous existence. Remembrance of ancestors.
	Topic 3.2. The concept of traditional Russian spiritual and moral values. Commonality of spiritual and moral values for believers and non-believers. Christianity, Islam, Buddhism and Judaism on public morality. Ethics of creative labor and humanity. Values of the family. Religious traditions of Russia about mercy, social justice, collectivism, mutual help and mutual respect.
	Topic 3.3. Religious traditions of Russia and all-Russian civic identity. Service to the Fatherland and responsibility for its fate. Historical memory of joint peaceful creation and joint defense of the Motherland. Historically formed spiritual and moral unity of the peoples of Russia. Russia as a multi-confessional state-civilization.
	Topic 3.4. Russian legislation on religious associations. Missionary activity. Religious property. Objects of cultural heritage. State-religious relations. The Council for Cooperation with Religious Associations under the President of the Russian Federation. Interreligious Council of Russia. Religious expertise. Religious organizations of the Russian

	Federation and the tasks of preserving and strengthening traditional Russian spiritual and moral values.

DEVELOPERS:

Head of the Department of pathological Anatomy of MI		**Kiribayev N.S.**
Position, Basic training unit	Signature	Surname Full name