**Students' choice courses () for the 2020-2021 academic year.**

**Specialty: "General Medicine" 2 course**

**Each student is required to collect 2 credits (ECTS) during the year**

**List and annotations of elective courses at the choice of students**

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| **№** | **Names** | **Loans** | **Annotations** |
| 1 | Nanotechnology in Medicine (Department of Physics, Mathematics, Informatics and IT) | 1 | The course program includes such issues as new and latest methods of prevention, diagnosis and treatment of patients' diseases, which include nano technologies, laser therapy, radiation diagnostics, etc. In addition, as part of the course, students will get acquainted with the main medical devices and devices, their classification, study issues related to ionizing radiation and their dosimetry in medicine. |
| 2 | Tropical Parasitology (Department of Medical Biology, Genetics and Parasitology) | 1 | The purpose of the course is to expand students' knowledge of morphology, the characteristics of development cycles, the spread of parasites of a tropical climate, their pathogenic action, and measures to protect human health from parasites. Large migration of the population to different parts of the world, the arrival of foreign students from various countries, the presence of transit hosts of parasites and vectors suggest an expansion of the range of parasites and the need for additional knowledge of tropical parasitology. |
| 3 | Modern problems of regeneration (department of histology, cytology and embryology) | 1 | The elective course "Modern Problems of Regeneration" is designed for 2nd year students of the Faculty of Medicine and is devoted to the study of the structural foundations of the regeneration processes occurring in the body, and the mechanisms of their regulation, which are addressed to solving medical problems. In clinical practice, it is often necessary to influence the regeneration processes of various tissues and organs. The impact on these processes requires a careful approach and a deep understanding of the basic laws of the regeneration process. In recent years, in connection with the advances in molecular biology, ideas about the mechanisms of regulation of reparative processes have changed significantly. In the light of this knowledge about the structural foundations of regeneration become an essential element of medical education and the elective course is designed to provide this knowledge.  Больше информации об этом исходном текстеЧтобы получить дополнительную информацию, введите исходный текст  Отправить отзыв  Боковые панели |
| 4 | Participation of the autonomic nervous system in the regulation of the functional systems of the body (Department of Fundamental and Clinical Physiology) | 1 | The subject of the elective course is devoted to the key problem of physiology - the study of the mechanisms of autonomic regulation of various body systems.  For the first time, students will get acquainted with the characteristics and methods of assessing the functional state of the autonomic nervous system.  In practical classes, to assess the state of the ANS, students will conduct various tests (clinortostatic and Martine's test), calculate the Kerdo index, induce Danini-Aschner reflexes, carotid Chermak-Hering reflexes. |
| 5 | The role of biogenic elements in the human body (department of biochemistry with a course in general and bioorganic chemistry) | 1 | Formation in students of a system of natural science knowledge about the chemical and biological properties of biogenic elements, the presence and transformation of which constitute the molecular basis of the body's life. |
| 6 | Pathophysiology of Adaptation Syndrome and Stress (Department of Pathological Physiology) | 1 | This course will study the most nonspecific general mobilization response of the body to any stimulus that threatens homeostasis in reality, potentially, or even simply unexpected. The causes of the adaptation syndrome and stress, as well as anti-stress mechanisms of the body, and the principles of stress correction will be discussed in detail. |
| 7 | Kep madaniyaty  (Department of the Kyrgyz language) | 1 | Teaching the Kyrgyz language is aimed at forming a culture of speech, logical speech, enriching vocabulary, grammatical literacy, teaching the correct writing of documents, deepening knowledge in the specialty. |

**Students' choice courses () for the 2020-2021 academic year.**

**Specialty: "General Medicine" 3 course**

**Each student is required to gain 6 credits (ECTS) during the year**

**List and annotations of elective courses at the choice of students**

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| **№** | **Names** | **Loans** | **Annotations** |
| **1** | Mechanisms of human adaptation to environmental conditions  (Department of Fundamental and Clinical Physiology) | **1** | As part of the elective course, the mechanisms of human adaptation to various environmental conditions, namely to the factors of high mountains, physical activity, and temperature shifts, are considered. Considering that 90% of the territory of Kyrgyzstan is occupied by mountains, considerable attention is paid to the study of the influence on the organism of the factors of high mountains. |
| **2** | Pituitary dysfunction syndrome.  (Department of Internal Medicine Propedeutics | **1** | Recently, more and more often there are patients with pituitary dysfunction syndrome, with slowly developing clinical manifestations, which are often perceived by the doctor as "age-related" changes or separate symptoms of somatic diseases. At the same time, untimely recognition of this pathology leads to damage to target organs and formidable complications. Taking into account the above, this program of an elective course for future doctors has been developed in order to form competencies in the diagnosis of basic clinical and laboratory-instrumental signs of "pituitary dysfunction syndrome". |
| 3 | Hemodynamic parameters and physiological mechanisms of regulation of regional blood circulation - coronary, pulmonary, cerebral, renal, portal  (Department of Fundamental and Clinical Physiology) | 1 | The elective course provides an in-depth study of the features of regional blood circulation. For the first time, students will be familiar not only with the general morphological and functional patterns of blood supply to various organs, but also with the regional features of blood flow and vascular tone.  The knowledge gained will contribute to a deep assimilation of the development of pathological processes of regional blood circulation, which is important for the future activities of a doctor. |
| 4 | The role of antioxidants in metabolic disorders in the human body (Department of Biochemistry with a course of general and bioorganic chemistry) | 1 | This elective course will allow the student to understand the essence of free radical oxidation processes in health and disease and to open the "door" to the world of antioxidants, which is important for the activities of a future general practitioner, since all basic physiological processes in the human body normally and in pathology occur with involving free radicals. |
| 5 | Rare hemispheric syndromes  (Department of Neurology and Clinical Genetics) | 1 | In CPV "Rare hemispheric syndromes" is designed to study those symptoms and syndromes of lesions of various parts of the cerebral hemispheres of the brain that are not included in the main program of the subject "Neurology" included in the module "Nervous system". This is the recognition of the syndromes of irritation and prolapse of the cerebral cortex, the clinical significance of the asymmetry of the cerebral hemispheres in neurology. Also, the issues of clinical research of higher cerebral functions are studied in detail. |
| 6 | Medical geography  (department OZZ) | 1 | Study of the influence of natural, economic and social conditions of various territories on the health of the population. |
| 7 | Clinical microbiological diagnosis of infections associated with the provision of medical care HAI (Department of Microbiology, Virology and Embryology) | 1 | The program is aimed at studying the types of microbes, transmission routes, factors contributing to the spread of nosocomial infections (nosocomial infections). The microbiological significance of microorganisms in the objects of the hospital environment (in water, air, food) in the development of nosocomial infections.  As a result of the training, students will master the rules for the collection, storage and transportation of clinical material in nosocomial infections of various localization |
| 8 | Fundamentals of Infection Control (Department of General and Clinical Epidemiology) | 1 | Infections associated with the provision of health care are an urgent problem for practical health care, reducing the quality of health care and increasing the social burden of disease. At the same time, a large proportion of nosocomial infections are associated with invasive diagnostic and therapeutic procedures. Future healthcare professionals should know the main measures for the prevention of infections associated with the provision of medical care. |
| 9 | Features of caring for preschool children with a view to their development (department of propedeutics of childhood diseases) | 1 | Purpose of the lesson: to teach students the basic elements of education for preschool children. Students must master the methods used to develop memory, speech, thinking, attention. Mastering practical skills in preschool institutions - to apply the methods of education in children, in the form of games, crosswords, maps, drawings and tests. |
| 10 | Sexual differentiation disorder. Hermaphroditism (Department of Urology) | 1 | The purpose of the elective course: the formation of students' knowledge about diseases of the male reproductive system about the violation of sexual differentiation, the causes of male infertility, factors contributing to the development of erectile dysfunction, as well as about modern methods of diagnosis and treatment in andrology. |

**Student elective courses (CPC) for the academic year 2020-2021**

Specialty: "General Medicine" 4 course

Each student is required to gain 8 credits (ECTS) during the year

List and annotations of elective courses at the choice of students

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| **№** | **Names** | **Loans** | **Annotations** |
| 1 | Emergencies in otorhinolaryngology  (Department of Otorhinolaryngology) | 1 | The program provides for the study of theoretical as well as practical skills and abilities to diagnose and provide timely, urgent assistance to patients with various conditions in otorhinolaryngology, such as: injuries, foreign bodies of ENT organs, nosebleeds, stenoses of the larynx of various origins, chemical burns of the pharynx and esophagus, paratonsillar abscesses and abscesses of other etiology, etc.). Particular attention will be paid to working out the basic techniques and methods of providing emergency care to otorhinolaryngological patients, namely, working with dummies (conducting anterior and posterior nasal tamponade, tracheotomy technique, etc.), visual aids. |
| 2 | Liver transplantation: definition, indications and post-transplant management of patients (department of faculty surgery) | 1 | The main goal of this course in liver transplantation is to increase the level of knowledge of students in the most important sections of liver transplantation. Studying in this elective course will allow students to acquire broader and deeper knowledge, get acquainted with the latest technologies and methods of liver transplantation. |
| 3 | Practical fundamentals of ultrasound diagnostics (Department of Radiation Diagnostics and Therapy) | 1 | The provided elective course is devoted to the in-depth study and application of ultrasound diagnostics in various fields of medicine. The analysis of frequently encountered ultrasound examinations using the Doppler mode in gastroenterology, uronephrology, angiology, and endocrinology will be carried out. It is mandatory to illuminate the ultrasound of normal anatomy in different age categories and in pathology. Practical training on ultrasound machines is provided. |
| 4 | Modern methods of diagnostics, treatment and prevention of dyslipidemia (department of faculty therapy) | 1 | As part of this elective course, students will study the classification of dyslipidemias, methods of their non-drug treatment, prevention of cardiovascular diseases, the concept and diagnostic criteria of familial hypercholesterolemia, learn to determine the overall risk of CVD, and interpret laboratory indicators of dyslipidemia. |
| 5 | Microcrystalline arthritis (department of hospital therapy) | 1 | The relevance of this elective lies in the fact that today the number of patients with metabolic disorders is growing, which, accordingly, leads to an increase in metabolic diseases. For GP doctors, this is relevant because there is underdiagnosis or a combination of these diseases with gout, although individual microcrystalline arthritis has specific diagnostics, treatment and management. The lecture course outlines the most pressing and complex issues in terms of identifying rare metabolic disorders, in particular pyrophosphate and hydroxyapatite arthropathies. Practical lessons will focus on the analysis of the pathogenesis of certain forms of salt metabolism disorders. An important point in teaching is the comparison of clinical manifestations of diseases at all stages of their development, which will instill in students the skills of clinical analysis and diagnostic signs. |
| 6 | Age physiology and pathology of the organ of vision  (Department of Ophthalmology) | 1 | Knowledge of ophthalmic techniques for examining the organ of vision will make it possible to timely prevent complications associated with a decrease in visual functions. In practical classes, students will receive information on the general semiotics of diseases of the organ of vision, learn the basic practical techniques for better consideration of the retina in diseases such as hypertension, atherosclerosis, and CNS damage. |
| 7 | Fundamentals of Dermatocosmetology (Department of Dermatovenereology | 1 | An elective course opens up the world of medical dermatocosmetology for the student. The program deals with the physiology of skin aging, correction and prevention of various morpho-functional skin disorders, prevention of premature aging of the body. Also, students will get acquainted with the main laser technologies used in dermatology, with the main schemes for caring for various types of skin. |
| 8 | Features of the imposition of intestinal sutures in complicated forms of acute surgical diseases of the abdominal organs. (department of hospital surgery with a course of operative surgery) | 1 | Quite often, in abdominal surgery, operations such as resection of the small and large intestines are performed. At the same time, to restore the patency of the gastrointestinal tract, it is necessary to form an interintestinal anastamosis. Failure to comply with the principles of abdominal surgery, in particular - the requirements for intestinal sutures, leads to very serious consequences. In these conditions, the problem of the correct imposition of the intestinal suture becomes relevant for senior students of the medical faculty. |
| 9 | Emergencies in neurology  (Department of Neurology and Clinical Genetics) | 1 | n the program of the elective course, diagnostics, differential diagnostics, treatment and emergency care for metabolic, toxic, autoimmune diseases of the nervous system, as well as damage to the autonomic and peripheral nervous system, are studied in detail. |
| 10 | Operative surgery of the mediastinum (department of hospital surgery with a course of operative surgery) | 1 | Damage to the stadiastinum can lead to compression of vital organs located in it (heart, intrapericardial parts of large vessels, tracheal bifurcation, main bronchi, pulmonary arteries and veins, lymph nodes, esophagus, etc.). The purpose of an elective course is to give an idea of surgical approaches for diseases of the mediastinal organs, as well as about the therapeutic and diagnostic measures that are used in this section of surgery. |
| 11 | Basics of laparoscopic technologies in surgery  (Department of Faculty Surgery) | 1 | The course provides for the development by the student of new theoretical knowledge and practical skills and covers the types of specialized assistance in the basics of laparoscopy.  Practical exercises include:  - stitching of tissues under the control of an endovideo camera;  - intracorporeal knot tying;  - extracorporeal knot tying;  - performing laparoscopic (bovine macropreparation) visual diagnostics and biopsy;  -performance of laparoscopic (bovine macropreparation) appendectomy and cholecystectomy. |
| 12 | Thyroid gland and pregnancy (Department of Internal Medicine Propedeutics) | 1 | Within the framework of this elective course, the issues of basic approaches to solving the problems of thyroid gland diseases in pregnant women according to disciplinary objectives will be considered, including the usual regimens for the treatment of uncomplicated cases. |
| 13 | Emergency neurosurgery for violent trauma in peacetime (department of neurosurgery) | 1 | This elective will consider the main parameters of the most common weapons, most of which are either legalized for use for self-defense, or are made clandestinely. The ballistics and characteristics of the infliction of injuries from one or another weapon will also be studied. But the main purpose of this course is to review the provision of primary health care at the scene of the accident, in the emergency room and the introduction of the patient in the conditions of secondary and tertiary hospitals. As a result, referring to the improvement of scientific and technological progress and dense urbanization with an increase in the population in urban areas, this elective course should provide the minimum necessary overview for students on the introduction of a category of patients, the frequency of which will only increase. |
| 14 | Practical fundamentals of pregnancy and childbirth management in rare diseases of the kidneys, liver and brain (Dept. AiG) | 1 | The presented elective course is devoted to in-depth study and expansion of practical knowledge and skills in the introduction of pregnancy and childbirth in patients with a single kidney, diseases of the brain and liver, depending on clinical manifestations and laboratory diagnostic indicators. |
| 15 | Modern problems of immunization  (Department of General and Clinical Epidemiology) | 1 | Immunization of the population plays an important role in the prevention of infectious diseases, which is indisputably proven by its results. During the period of formation and development of immunoprophylaxis, new technologies for obtaining vaccines have been developed, schemes and methods of administration have been improved.  Knowledge of the basics of organizing vaccinations and new directions in the development and production of immunobiological drugs is necessary for future public health professionals |
| 16 | Valeology  (Department of General Hygiene) | 1 | The purpose of the discipline:  Students gain knowledge, skills and abilities to form, maintain and strengthen health by studying and using the patterns of health formation and developing ways to model and achieve a healthy lifestyle.  The program provides for the study of the foundations of a healthy lifestyle, environmental factors, its components, natural, anthropogenic aspects. |