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

Specialty: "Pharmacy" WMO

Each student must earn 1 credit (ECTS) during the semester

List and annotations of elective courses at the choice of students

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|  |  | **1 semester (1cr)** |
| No. | Credits | **Department name** | **SEC name** | **Annotations**  |
| **1** | **1** | Department FGZ and HLS | The doctrine of solutions | The elective course is aimed at studying the foundations of the modern doctrine of solutions, knowledge of which is necessary for a pharmacist, since biochemical processes in the body occur in solutions, many drugs are solutions. The section is also important for understanding the role of ionic, including acid-base, interactions in drug metabolism, in the analysis of drugs, in the preparation of dosage forms. |
| **2** | **1** | Department UEF, TLS | Pharmacy around the world | The elective course is aimed at familiarizing with the organization of drug supply and the role of the pharmacist in different countries. |
| **3** | **1** | Department physics, mathematics, computer science and computer technology | Information and communication technologies in pharmacy | Formation of students' general ideas about the possibilities of using information and communication technologies that provide ample opportunities for processing medical and pharmaceutical information, mastering the techniques of working with modern standard software packages. |

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|  |  | **2 semester (2cr)** |
| No. | Credits | **Department name** | **SEC name** | **Annotations**  |
| **1** | **1** | Department pathological physiology | Pathophysiology of drug addiction and substance abuse | The elective course is aimed at studying the issues of the general etiology of drug addiction and substance abuse, the concept of drugs, the general mechanisms of action of drugs on the nervous system, stages of drug addiction, as well as the principles of prevention and treatment of drug addiction. |
| **2** | **1** | Department FGZ and HLS | Modern trends in the creation of new medicinal substances of organic nature  | The aim of the course is to expand and deepen the knowledge of students about modern methods of obtaining medicinal substances of organic nature. The modern ways of creating organic medicinal substances, which have found application in practical medicine, are considered. |
| **3** | **1** | Department UEF, TLS | Good Pharmaceutical Practices for the Circulation of Medicines | The elective course focuses on the study of the concept of good practice in pharmacy (GHP); good pharmaceutical practices of the Eurasian Economic Union. |

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Each student is required to gain 4 credits (ECTS) during the semester

List and annotations of elective courses at the choice of students

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|  |  | **Semester 3 (4 off-grid credits for a set of credits)** |
| No. | credits | **Department name** | **SEC name** | **Annotations**  |
| **1** | **1** | Department FGZ and HLS | Countermeasures against counterfeiting of medicines | The elective course allows you to master the methods of identifying counterfeit drugs at different stages of their promotion, work with the population to raise awareness of the problem of counterfeiting drugs. |
| **2** | **1** | Department UEF, TLS | Homeopathic, veterinary, medical and cosmetic products | The elective course is aimed at studying the basics of homeopathy - history, features of this type of treatment, technology of homeopathic medicines, etc .; with a special branch of pharmaceutical science - veterinary pharmacy; with the basics of modern clinical cosmetology. |
| **3** | **1** | Department UEF, TLS | Medicinal products based on medicinal product | The elective course is aimed at expanding and deepening knowledge on methods for obtaining extraction preparations based on medicinal products, studying technological schemes, equipment, developing skills for self-extraction from medicinal products, assessing the quality of raw materials and finished products. |
| **4** | **1** | Department general hygiene | Valueology as a science of health | The aim of the elective course is to study the basics of a healthy lifestyle and the way of modeling, achieving these foundations. |
| **5** | **1** | Department of Forensic Medicine and Jurisprudence | Fundamentals of Modern Medical Legislation | The elective course examines the issues of legislative support for the protection of public health, the rights and obligations of medical organizations, medical and pharmaceutical workers, as well as citizens in the field of health care, the problems of social and legal protection of medical and pharmaceutical workers. |
| **6** | **1** | Department of Basic and Clinical Pharmacology | Pharmaceutical assistance  | The purpose of mastering an elective course is medicinal, informational and organizational-methodological support of the quality of pharmacotherapy for a specific patient with a specific disease, for monitoring visitors to pharmacies and increasing their adherence to treatment. |

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

List and annotations of elective courses at the choice of students

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|  |  | **5-semester (6 cr? Outside the grid for a set of credits)** |
| No. | credits | **Department name** | **SEC name** | **Annotations**  |
| **1** | **1** | Department UEF, TLS | Medicinal products based on medicinal product | The elective course is aimed at expanding and deepening knowledge on methods for obtaining extraction preparations based on medicinal products, studying technological schemes, equipment, developing skills for self-extraction from medicinal products, assessing the quality of raw materials and finished products. |
| **2** |  | Department of Forensic Medicine and Jurisprudence | Fundamentals of Modern Medical Legislation | The elective course examines the issues of legislative support for the protection of public health, the rights and obligations of medical organizations, medical and pharmaceutical workers, as well as citizens in the field of health care, the problems of social and legal protection of medical and pharmaceutical workers. |
| **3** | **1** | Department UEF, TLS | Sales technique. Merchandising in pharmacies. | The elective course is aimed at studying the methods of establishing effective communication with visitors to the pharmacy; use of modern sales techniques; application of the main provisions of the concept of merchandising in the work of pharmacies. |
| **4** | **1** | Department UEF, TLS | The main aspects of the circulation of biosimmilars | The issues of development, production and regulation of the circulation of such biotherapeutic drugs (biosimilars, from the English biosimilars) are becoming increasingly important. The elective course is aimed at studying the specifics of the system for regulating the circulation of biosimilars. |
| **5** | **1** | Department UEF, TLS | Pharmaceutical logistics according to GDP / GSP regulations | The elective course is aimed at studying the regulatory requirements of the Kyrgyz Republic, the EAEU, WHO in relation to the distribution of medicines; acquiring skills in organizing the main processes of pharmaceutical logistics |
| **6** |  | Department FGZ and HLS | Pharmacognostic analysis of medicinal plant materials and quality control of medicinal products | The purpose of the elective course is an in-depth study of the methods of pharmacognostic analysis of medicinal products and pharmacopoeial methods for the analysis of drugs. |
| **7** | **1** | Department of Basic and Clinical Pharmacology | Pharmaceutical assistance  | The purpose of mastering an elective course is medicinal, informational and organizational-methodological support of the quality of pharmacotherapy for a specific patient with a specific disease, for monitoring visitors to pharmacies and increasing their adherence to treatment. |
| **8** |  | Department basic and clinical pharmacology | Introduction to Pharmacoepidemiology | The purpose of mastering the elective course is to study the use and effect of drugs on large groups of people, to study the assessment of the therapeutic risk associated with the use of drugs and the effectiveness of measures and to minimize them, allowing pharmacists, in cooperation with other specialists conducting treatment, to plan, control, recommend and change individual patient pharmacotherapy to optimize it. |

Faculty Coordinator "Pharmacy" S.Ch. Dootalieva