Appendix #4

WORKING PROGRAMS ON INTERNSHIP

Field practice in botany

During field practice in botany, students consolidate and expand the knowledge gained during lectures and practical classes on plant morphology, plant systematics, and study specific types of medicinal plants growing in Kyrgyzstan.

Field practice in botany aims to acquire certain skills in collecting, drying and assembling herbariums, determining the species belonging to the collected plants, as well as preparing handouts for practical classes. During the internship, students collect and design a herbarium, studying the Latin names of plants and families, and keep a diary of a certain sample (see diary design), in which they reflect their work on a daily basis. Thus, field practice together with a theoretical botany course prepares students for the study of pharmacognosy.

Purpose: On the basis of morphological features knowledge of various families plants and the ability to work with the plant identifier, to develop students 'skills and practical skills in determining "live" plants and their herbarization.

Tasks : to teach students the ability and develop their practical skills in the following areas::

- morphological description and definition of plants;
- on herbarization of plants of various life forms.

The students ' work consists of three sections:

1) morphological description of the plant;
2) plant identification by " Determinant";
3) herbarization of plants.

The total labor intensity is 1 credit.

Introductory practice on drug technology

Pharmaceutical propaedeutical practice is aimed at familiarizing students with the standard plan of production pharmacy organizations, the rules of the sanitary regime of pharmacies, the rules of operation and instilling skills in various dosage forms, methods of packaging medicines in pharmacies. Thus, pharmaceutical propaedeutical practice is one of the steps in preparing students to study specialized subjects, such as drug technology, pharmaceutical chemistry, pharmacy management and economics, and pharmacology, which determine the content of a pharmacist's practical activity.

The process of mastering pharmaceutical propaedeutical practice is aimed at developing students ' general cultural and professional competence of a pharmacist, system knowledge, practical skills and abilities in studying specialized subjects.

Purpose: to acquaint students with the standard pharmacy plan, the rules of the sanitary regime and to master the rules of dosage of dosage forms produced in pharmacies.

Tasks:

- formation of students ' practical knowledge and skills in the organization and implementation of sanitary requirements in pharmacy organizations;

- intriduse students with the structure of the pharmacy's prescription and production department, job descriptions of the pharmacy's cleaning attendant, packer;
- formation of students ' practical knowledge and skills in the organization of drug storage in pharmacy organizations;
- develop skills in working with weighing and measuring devices;
- develop skills in packaging and preparing for the release of medicines manufactured in pharmacies.
The total labor intensity is 2 credits.

Annotation of the pharmacognosy training and internship.
Practice in pharmacognosy is a continuation of the educational process and is designed to consolidate and expand theoretical and practical knowledge. In the course of studying pharmacognosy the 3rd year students are introduced to medicinal plants by herbarium samples and raw materials, tables, slides, using modern technologies (including Internet resources).

Practice allows you to get acquainted with live plants and master a number of practical skills in the preparation of raw materials, in determining stocks.
These questions can only be resolved in the course of practical training,
and it is part of the program in the preparation of a pharmacist.
Goals and tasks of the practice:
- determination of stocks of medicinal plant raw materials in nature and organization of its harvesting and drying;
- organization of works on introduction and cultivation of medicinal plant raw materials;
- participation in solving individual research and applied tasks related to the development of new methods and technologies in the field of pharmacy.
The total labor intensity of the practice is 2 credits.

Drug technology

Internship on drug technology is a continuation of the educational process and is designed to consolidate and expand the theoretical knowledge gained by students during the course of drug technology, instill in them the practical skills necessary in the activity of a pharmacist-technologist when performing specific tasks in the conditions of pharmacy and industrial (pharmaceutical) production. Internship provides for the development of methods for obtaining medicines, introduce with the equipment used by pharmaceutical enterprises. Also, the internship allows students directly in pharmacy or pharmaceutical company to learn the basics of state regulation of the production of medicines in pharmacies and in pharmaceutical companies using the rules of GMP, GDP, GPP; the formation of labor discipline and the development of skills necessary for the activities of a pharmacist-technologist for decision questions technology medicines in the pharmacy and the factory, stepwise quality control and evaluation of the finished product.
Purpose: consolidation, expansion and improvement of theoretical knowledge, obtained by students in the course of training in the course of drug technology, while acquiring practical skills in the manufacture and production of various dosage forms in the conditions of pharmacy and factory production.

Tasks :

- get acquainted with the production, administrative and economic structures of a pharmaceutical enterprise, pharmacy organizations that have the right to manufacture drugs;
- get acquainted with the job descriptions of a pharmacist-technologist in a pharmaceutical organization;
- get acquainted with the elements of the GMP standard implemented in the production of medicines;
- study the technology, processes and equipment used in the production of medicines;
- draw up production organization schemes, step-by-step control and a nomenclature list of medicines produced at this pharmaceutical enterprise;
- master the main sections of laboratory and industrial regulations for the production of medicines;
- to consolidate and master in practice the skills of pharmaceutical production technology of dosage forms;
- get acquainted with the work of the company's divisions; workshops, sites, production facilities and the Quality control department (QCD).

The total labor intensity is 4 credits.

Quality control of medicines

Internship on quality control of medicines, being an integral part of the educational process, plays an essential role in the training of highly qualified specialists-pharmacists and analysts. It also helps future specialists adapt to the production environment of pharmacies, control and analytical laboratories.

During the practice also provides for the development of medicines production state regulation in pharmacies and in pharmaceutical companies using the rules of GMP, GLP, GCP, GPP; the formation of labor discipline and the development of skills necessary for the activities of the pharmacist-analyst in the field of organizing and conducting quality control of medicines in accordance with the prospects of development and the progress is constantly developing fundamental physicochemical and biomedical Sciences.

Purpose: attaching and improvement of theoretical knowledge and professional ethics received by students in the learning process at the rate of pharmaceutical chemistry, the acquisition of skills and skills in the assessment of quality of medications with the use of analyzing modern methods for the solution of pharmacist-analyst practical activities specific problems in pharmacies terms, control and analytical laboratories, pharmaceutical warehouses and laboratories of pharmaceutical companies.

Internship :conducting all types of drug analysis:

- in pharmacies: pharmacopoeial analysis of medicinal substances, rapid analysis of intra-pharmacy medicinal products;
- in laboratories of pharmaceutical companies: pharmaceutical analysis of medicinal substances, step-by-step control of industrial medicines;
- in control and analytical laboratories: pharmacopoeial analysis of medicinal substances, medicinal products of industrial production, including general methods of analysis, according to the current edition of the State Pharmacopoeia (physical, physical-chemical and chemical).

The total labor intensity is 4 credits.

Pharmacy Management and Economics

Students ' internship is an essential part of training qualified pharmacists. Organizational and methodological management of practice in a pharmacy organization is carried out by teachers of the KSMA department. The general management of the practice is carried out by the head of the pharmacy or his deputy.

One of the most important elements of practical training in PME is the adaptation of future specialists in the team of a pharmacy organization and mastering in practice the main provisions of regulatory documents regulating pharmaceutical activities. The program of internship includes the organization of work and document management of a pharmacy warehouse, retail pharmacy, pharmacy point, administrative and managerial personnel of a pharmacy organization, organization of drug supply to the population at the outpatient and inpatient levels. Also, during the internship, students master and learn how to apply in practice the provisions of the GPP, GDPR standards, and the pharmacist's Code of Ethics.

Purposes:

The purpose of the practice is to consolidate, expand and improve the theoretical knowledge obtained during the study of the discipline, as well as to acquire practical skills and abilities in organizing the provision of pharmaceutical care of the population and ensuring the performance of the main functions of the pharmacy: sales, marketing, trade, information, education of labor discipline, professional ethics and deontology.

Tasks:

-introduce with the organization, production, trade and economic and financial activities of pharmaceutical organizations;

- compliance with labor discipline and professional responsibility;

- development of organizational skills;

- mastering the principles of pharmaceutical deontology and ethics of relationships with pharmacy visitors, medical and service personnel;

- get acquainted with the organization and functioning of the state system of quality control, effectiveness and safety of medicinal products, the form of control over the activities of pharmaceutical organizations;

-introduction to logistics technologies in pharmaceutical organizations;

- master the basics of planning and analyzing the assortment of a pharmacy organization, including a warehouse;

-mastering in practice the rules of prescription and over-the-counter sales of medicines and medical devices;

- mastering the practice of conducting pharmaceutical expertise of prescriptions, conducting taxing for intra-pharmacy procurement and medicinal products of intra-pharmacy production;

- master the basics of organizing intra-pharmacy quality control of medicinal products, subject-quantitative accounting of medicinal products, rules for storing medicinal products and MI;

- implementation of the rules for the distribution of medicines under preferential prescriptions of forms 109-CHI and 109-PGG;
- introduce with the accounting and reporting of inventory items in pharmacy organizations, the procedure for documenting business operations of pharmaceutical organizations;
- mastering the basics and principles of compliance with the conduct and documentation of inventory;
-to study and master the procedure for participation of pharmaceutical organizations in public procurement of medicines, and MI;
- learn the basics мof merchandising in pharmacies: rules for displaying pharmaceutical products in open pharmacies, etc.;
- master the basics of drawing up accounting documentation on financial and economic activities;
- safety training in pharmaceutical organizations.
The total labor intensity of the practice is 4 credits.

First aid services

Knowledge of the basic principles of diagnosing life-threatening emergencies and the rules for providing pre-medical care will help students of the Faculty of Pharmacy to correctly provide assistance to victims of accidents before the ambulance arrives.
This program will master the basic principles of pre-medical care in various emergency situations, such as clinical death, musculoskeletal injuries, bleeding, airway blockage, electrical injuries, immediate allergic reactions, food poisoning, and more.

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Study of theoretical issues of providing first aid for the most common diseases and lesions that occur in emergency situations, consolidation and improvement of theoretical knowledge, acquisition by future pharmacists of skills and practical skills in providing first aid.

Practice tasks:

Important tasks of this practice are aimed at developing students ' fundamental knowledge, skills and abilities in the field of providing any emergency medical pre-medical care, introduce and training students:

- with the organization and structure of the emergency medical service;
- with principles for diagnosing life-threatening emergencies;
- qualified implementation of resuscitation measures;
- make injections;
- the use of funds for temporary bleeding stopping;
- applying standard medical tires;
- with the rules of transportation of sick and injured people;

- with the rules for providing care for the most common emergency conditions.
Total labor intensity of the practice is 1 credit