

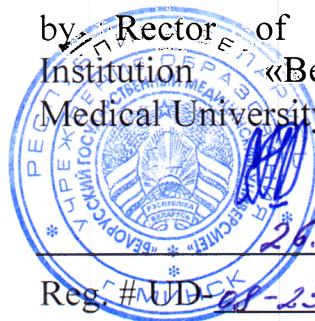
**MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS**  
Educational Institution  
**BELARUSIAN STATE MEDICAL UNIVERSITY**



**APPROVED**

by Rector of the Educational  
Institution «Belarusian State  
Medical University»

S.P.Rubnikovich



26.06.2024

Reg. #UD-08-23/2425 /edu.

**ORGANIZATION AND ECONOMICS OF PHARMACY**

**Curriculum of the educational institution  
in the academic discipline for the specialty**

**7-07-0912-01 «Pharmacy»**

Curriculum is based on the educational program «Organization and Economics of Pharmacy», approved 27.06.2023, registration УД-Л.08-23/2324/уч., on the educational plan in the specialty 1-79 01 08 «Pharmacy», approved 15.05.2022, registration # 7-07-0912-01/2425/mf.

**COMPILERS:**

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**RECOMMENDED FOR APPROVAL:**

by the Department of Organization and Economics of Pharmacy of the educational institution «Belarusian State Medical University»  
(protocol # 13 of 14.06.2024);

by the Scientific and Methodological Council of the educational institution «Belarusian State Medical University»  
(protocol # 18 of 26.06.2024)

## EXPLANATORY NOTE

«Organization and Economics of Pharmacy» is an academic discipline of the module «Organization and Economics of Pharmacy», containing systematized scientific knowledge about the organization of work of pharmacy organizations, their structural divisions related to the circulation of medicines, medical devices, other pharmaceutical products and economic activities.

The aim of the academic discipline «Organization and Economics of Pharmacy» is the formation of universal and basic professional competencies to solve problems in organizing the provision of the population and healthcare organizations with safe, effective and high-quality medicines, medical devices and other pharmaceutical products.

The objectives of the academic discipline «Organization and Economics of Pharmacy» are to develop among students scientific knowledge about the legal and organizational foundations of state regulation in the field of circulation of medicines, medical devices, and other pharmaceutical products, skills and abilities necessary to solve practical problems of pharmaceutical activity.

The knowledge, abilities and skills acquired in the study of the academic discipline «Organization and Economics of Pharmacy» are necessary for the successful study of the following academic disciplines: «Pharmacy Technology of Drugs», «Pharmaceutical Merchandizing», «Management of Pharmacy», «Management and Economics of Pharmaceutical Enterprise», «Pharmaceutical Care».

Studying the educational discipline «Organization and Economics of Pharmacy» should ensure the formation of students' universal and basic professional competencies:

UC. Be capable of self-development and self-improvement in professional activities. Take initiative and adapt to changes in professional activities.

BPC. Organize the work of the pharmacy and provide patients with medicines in hospital. Carry out professional activity, including the release and sale of medicines, medical products and pharmacy assortment goods through pharmacies, within the framework of the regulatory legal control system of the medicines circulation sphere. Maintain the necessary document circulation at pharmacy organizations. Carry out inspections of pharmacy organizations and pharmaceutical enterprises. Perform pharmacovigilance functions. Plan and organize resource support for pharmacy organizations and pharmaceutical enterprises, including emergency situations.

**As a result of studying the academic discipline «Organization and Economics of Pharmacy», the student should**

**know:**

basic concepts used in the field of circulation of medicines, medical devices and other pharmaceutical products;

fundamentals of public policy in healthcare and pharmacy;

healthcare structure of the Republic of Belarus;

regulatory legal support for pharmaceutical activities;

organizational and legal forms of business entities and licensing procedures in pharmacy;

nomenclature of positions for pharmaceutical workers;

types of financial liability in a pharmacy;

requirements of good pharmacy practice, good distribution practice of the Eurasian Economic Union (EAEU), good storage practice;

quality assurance system in the pharmacy and pharmaceutical warehouse;

basics of accounting, reporting, economics of a pharmacy organization;

basics of logistics analysis;

methodology of pharmacoeconomic analysis;

the procedure for staffing a pharmacy organization;

basics of regulation of labor relations;

features of the organization of pharmaceutical services abroad;

**be able to:**

determine the category, composition, area of premises and staff of the pharmacy;

plan the product range, determine the need of the pharmacy and pharmacy warehouse for medicines, medical devices, and other products of the pharmacy range, set prices;

organize storage of inventory items in the pharmacy;

use the principles of merchandising in the work of pharmacies;

organize document flow in the pharmacy;

analyze and plan the main indicators of the financial and economic activities of a pharmacy, develop elements of a business plan for a pharmacy organization;

rationally organize workplaces in a pharmacy (hospital pharmacy), pharmaceutical warehouse, control and analytical (testing) laboratory;

use information databases on medicines, including the EAEU;

**master:**

the ability to organize the work of a pharmacy in accepting doctor's prescriptions and the requirements of healthcare organizations, manufacturing, packaging, packaging and labeling, quality control, sales (dispensing) of medicines, medical devices, other pharmaceutical products, conducting cash transactions;

skills in developing quality guidelines, standard operating procedures and technological instructions in a pharmacy (hospital pharmacy), pharmaceutical warehouse, control and analytical (testing) laboratory;

the procedure for handling citizens' appeals.

**Total number** of hours for the study of the discipline is 533 academic hours. Classroom hours according to the types of studies: 63 hours of lectures (including 18 hours of supervised student independent work), 235 hours of laboratory classes, 234 hours of student independent work (self-study).

Intermediate assessment is carried out according to the syllabus of the specialty in the form of a credit (5th, 7th semester) and exams (6th, 8th semester).

Form of higher education – full-time.

**ALLOCATION OF ACADEMIC TIME  
ACCORDING TO SEMESTERS OF STUDY**

Code, name of the specialty	semester	Number of academic hours						Form of intermediate assessment
		total	in-class	Including			out-of-class self-studies	
				lectures	supervised student independent work	laboratory studies		
<b>1-79 01 08 «Pharmacy»</b>	5	198	92	18	6	68	106	credit
	6	120	66	9	6	51	54	exam
	7	120	80	9	3	68	40	credit
	8	95	60	9	3	48	35	exam
		<b>533</b>	<b>298</b>	<b>45</b>	<b>18</b>	<b>235</b>	<b>235</b>	

## THEMATIC PLAN

Section (topic) name	Number of class hours	
	lectures	laboratory
<b>1. Basics of healthcare and pharmacy</b>	<b>3,0</b>	<b>16</b>
1.1. Introduction to the academic discipline «Organization and Economics of Pharmacy». Regulatory support of healthcare and pharmacy	1,5	4
1.2. Health care structure of the Republic of Belarus. State policy in the field of healthcare and pharmacy		4
1.3. Pharmacy organization as a business entity. Organizational and legal forms. Procedure for state registration and liquidation	1,5	8
<b>2. Normative legal regulation of the activities of pharmacy organizations and their structural divisions</b>	<b>9</b>	<b>20</b>
2.1. The procedure for opening, establishing and equipping pharmacies in accordance with the requirements of Good Pharmacy Practice. Design and decoration of the pharmacy sales area in accordance with the requirements of Good Pharmacy Practice and merchandising principles	3	4
2.2. Sanitary and epidemiological requirements for the maintenance and operation of pharmacies. Standardization of pharmaceutical activities. Quality assurance system in pharmacy	3	4
2.3. Nomenclature and qualifications of positions of pharmaceutical employees. Material responsibility in the pharmacy	1,5	4
2.4. Licensing of pharmaceutical activities. Licensing of activities related to the trafficking of narcotic drugs, psychotropic substances and their precursors	1,5	8
<b>3. Organization of drug supply to the population and healthcare organizations</b>	<b>12</b>	<b>38</b>
3.1. Organization of ordering, receiving and storing medicines, medical devices and other pharmaceutical products in a pharmacy	1,5	4
3.2. The procedure for writing a doctor's prescription (creating an electronic doctor's prescription). Automated information system «Electronic prescription». Retail sale of medicines, medical devices and other pharmaceutical products	3	8
3.3. Pharmaceutical examination and taxing of doctor's prescription	3	8

Section (topic) name	Number of class hours	
	lectures	laboratory
3.4. Organizing the work of a pharmacy in the production, packaging, labeling and quality control of medicines, carrying out laboratory (packing) work	3	12
3.5 Fundamentals of pharmacoconomics. Organization of drug provision for patients receiving medical care in inpatient settings. Organization of work of a hospital pharmacy	-	3
3.6. Medicine provision for rural population. Organization of work of the central district pharmacy	1,5	3
<b>4. Purchase, promotion, distribution of medicines, medical devices and other pharmaceutical products</b>	<b>15</b>	<b>45</b>
4.1. Government procurement of medicines and medical devices. Purchasing policy of a pharmacy organization	3	3
4.2. Order of purchase, storage, sale of narcotic drugs and psychotropic substances in pharmacy and pharmacy warehouse	1,5	6
4.3. The procedure for importing medicines, medical devices and other pharmaceutical products into the Republic of Belarus. Harmonization of regulatory legal support for the circulation of medicines in the Eurasian Economic Union	3	6
4.4. Organization of the operation of pharmacy warehouses in accordance with the rules of the Good Distribution Practice of the EAEU	1,5	3
4.5. Pharmaceutical logistics. Procedure and conditions for transportation of medicines, medical devices and other pharmaceutical products	1,5	3
4.6. Organization of self-inspection in a pharmacy and pharmaceutical warehouse	-	6
4.7. Organization of work of the control and analytical (testing) laboratory	1,5	3
4.8. Information and advertising activities in pharmacy	1,5	3
4.9. Organization of pharmacy abroad	1,5	6
4.10. International cooperation in healthcare and pharmacy. Pharmaceutical public associations	-	6
<b>5. Accounting and analysis of the financial and economic activities of a pharmacy organization</b>	<b>12</b>	<b>68</b>
5.1 General characteristics of business accounting. Organization of accounting	1,5	4
5.2. Accounting for receipt of inventory items in a pharmacy	-	4

Section (topic) name	Number of class hours	
	lectures	laboratory
5.3 Accounting for the consumption of inventory items in a pharmacy	3	4
5.4 Accounting for fixed assets in a pharmacy. Accounting for inventory in a pharmacy	-	8
5.5 Accounting for funds in a pharmacy	-	4
5.6 Accounting in the pharmacy forms and documents with a degree of protection	-	4
5.7 Accounting reports of the pharmacy organization. The basics of accounting balance	1,5	4
5.8 Accounting of work and salary. Remuneration of work in pharmaceutical organizations	3	4
5.9 Deductions from salary. Payment of leave and benefits	-	8
5.10 State control (supervision) and audit in pharmacy organizations	1,5	4
5.11 Pharmaceutical inspection	-	4
5.12 Taxation of pharmacy organizations	-	4
5.13 Inventory of assets and liabilities in a pharmacy	1,5	4
5.14 Subject-quantitative accounting in the pharmacy		8
<b>6. Fundamentals of the economy of the pharmacy organization</b>	<b>6</b>	<b>27</b>
6.1 Fundamentals of economic analysis	1,5	3
6.2 Analysis and planning of pharmacy compounding	-	3
6.3 Analysis and planning of pharmacy turnover	-	3
6.4 Analysis and rationing of inventory in the pharmacy and pharmacy warehouse	-	3
6.5 Analysis and planning of work and salary indicators	3	3
6.6 Analysis and planning of sales costs, profits and profitability of pharmacies	-	3
6.7 Assortment and pricing policy of the pharmacy organization. Determining the need for medicines, medical devices and pharmaceutical products	1,5	3
6.8 Financial management in pharmacy. Development of a business plan for the development of a pharmacy organization	-	6
<b>7. Regulation of work relations and organization of work with the public in pharmacy organizations</b>	<b>6</b>	<b>21</b>
7.1 Staffing of a pharmacy organization	1,5	3
7.2 Regulation of work relations in pharmacy organizations	-	3



Section (topic) name	Number of class hours	
	lectures	laboratory
7.3 Labor discipline. Disciplinary responsibility of employees	1,5	3
7.4 Protection of consumer rights in the sphere of circulation of medicines, medical devices and other pharmaceutical products	3	6
7.5 Organization of the pharmacy with appeals of citizens. Information technology and automation in the activities of pharmaceutical organizations	-	6
<b>Total hours</b>	<b>63</b>	<b>235</b>

## **CONTENT OF THE EDUCATIONAL MATERIAL**

### **1. Basics of healthcare and pharmacy**

#### **1.1. Introduction to the academic discipline «Organization and Economics of Pharmacy». Regulatory support of healthcare and pharmacy**

Goals, objectives, sections of the academic discipline «Organization and Economics of Pharmacy», role in the pharmaceutical education system, integration with other academic disciplines.

Law of the Republic of Belarus «On Regulatory Legal Acts». Basic principles of rule-making activities. Types of regulatory legal acts, their legal force and main structural elements.

Reflection of issues of circulation of medicines in the Constitution of the Republic of Belarus, decrees of the President of the Republic of Belarus, Laws of the Republic of Belarus, resolutions of the Council of Ministers, resolutions of the Ministries of Health, Economy, Finance, Labor and Social Protection, the State Customs Committee of the Republic of Belarus, etc. Decisions of the Constitutional Court of the Republic Belarus in the field of pharmaceutical activities.

#### **1.2. Health care structure of the Republic of Belarus. State policy in the field of healthcare and pharmacy**

Health care structure of the Republic of Belarus. Ministry of Health, its tasks, functions. Administrative procedures in the field of circulation of medicines. General scheme for managing business entities in the pharmaceutical market.

Department of organization of drug supply of the Ministry of Health of the Republic of Belarus, tasks and functions. Medicines Commission. Licensing Department. Pharmaceutical Inspection Department.

State institution «State Pharmaceutical Supervision in the Sphere of Medicines Circulation» (State Institution «Gosfarmnadzor»), its structure, tasks and functions.

Republican unitary enterprise «Center of expertise and tests in healthcare», its structure, tasks and functions.

Organizations engaged in industrial production of medicines in the Republic of Belarus. Holding for the production of pharmaceutical products «Belpharmprom».

Pharmacy organizations of state and non-state ownership. State pharmacy organizations not subordinate to the Ministry of Health of the Republic of Belarus.

Laws of the Republic of Belarus «On Healthcare», «On the Circulation of Medicines». Basic principles of state policy in the field of healthcare and in the field of circulation of medicines. The procedure for providing citizens of the Republic of Belarus with medicines, medical devices and biomedical cell products.

State regulation in the field of circulation of medicines.

Availability of medicines. National drug policy and its role in ensuring access to medicines.

List of essential medicines, the order of its formation.

List of strategically important medicines.

### **1.3. Pharmacy organization as a business entity. Organizational and legal forms. Procedure for state registration and liquidation**

Forms of entrepreneurial activity. The concept of a legal entity. Commercial and non-profit organizations. The authorized capital of a commercial organization. Constituent documents of a legal entity.

Pharmacy organization as a business entity. Classification on the organizational and legal basis: unitary enterprises, joint-stock companies, limited liability companies, companies with additional liability. Joint venture, foreign enterprise.

Forms of integration of business entities.

The procedure for state registration and liquidation (termination of activities) of business entities. Unified State Register of Legal Entities and Individual Entrepreneurs.

## **2. Normative legal regulation of the activities of pharmacy organizations and their structural divisions**

### **2.1. The procedure for opening, establishing and equipping pharmacies in accordance with the requirements of Good Pharmacy Practice. Design and decoration of the pharmacy sales area in accordance with the requirements of Good Pharmacy Practice and merchandising principles**

Classification of pharmacies into categories in accordance with Good Pharmacy Practice, opening procedure. Standard for providing the population with pharmacies of all forms of ownership.

Functions, areas, complex of premises, equipment of pharmacies, depending on the work and services performed that constitute pharmaceutical activities.

Requirements for the arrangement of the entrance, land plot (if available), information posted on the facade of the pharmacy. Creation of conditions in pharmacies for a barrier-free living environment (access and stay for physically weakened persons).

Specialized pharmacies.

Information for customers placed in the sales area (public service area) of the pharmacy, depending on the work and services performed.

Merchandising: definition, goals, objectives and functions.

Exterior design of a pharmacy. Interior of the sales area (visitor service area) of a pharmacy: color scheme, lighting, music.

Layout and location of commercial equipment. Installation area coefficient. Classification of showcases, general requirements for their design. Placement of medicines, medical devices and other pharmaceutical products on the shelves and showcases of the pharmacy. Optimizing the placement of product groups taking into account the characteristics of customer behavior. Laws of merchandising. Layout coefficient.

Placement of information and advertising materials in the sales area of the pharmacy.

The appearance of pharmacy employees as an element of merchandising.

## **2.2. Sanitary and epidemiological requirements for the maintenance and operation of pharmacies. Standardization of pharmaceutical activities. Quality assurance system in pharmacy**

Specific sanitary and epidemiological requirements for pharmacies: location, maintenance, operation, ensuring the safety of workers, separate requirements for pharmacies.

Sanitary norms and rules «Sanitary and epidemiological requirements for pharmacies»: requirements for the territory, maintenance and operation of premises, equipment, furniture and inventory, cleaning regime in a pharmacy.

Sanitary and epidemiological requirements for personal hygiene of pharmacy employees. Standard operating procedure (SOP) «On personal and occupational hygiene of pharmacy employees».

Requirements for the receipt, transportation and storage of purified water and water for injection, for the processing and disinfection (sterilization) of pharmaceutical glassware, small-scale mechanization equipment and auxiliary materials. SOP «On the processing of pharmaceutical glassware, closures and auxiliary materials».

Sanitary and epidemiological requirements for cleaning premises, storing detergents and disinfectants, labeled equipment and materials used for cleaning premises (areas) and processing equipment. Sanitary and anti-epidemic measures. SOP «On the treatment of premises and equipment».

Program of industrial control of compliance with sanitary norms and regulations, implementation of sanitary, anti-epidemic and preventive measures in pharmacies.

Mandatory and extraordinary medical examinations of employees.

The concept of standardization, objects and scope of standardization. The role of standardization in healthcare and pharmacy. Good pharmaceutical practices in the field of drug circulation.

Quality assurance system in a pharmacy. Documents of the quality assurance system: quality manual (regulations on the quality assurance system, etc.). SOP and technological instructions (TI): concept, requirements for content and design, structure. The procedure for developing, agreeing, approving, making corrections (additions, changes) to technical specifications and SOP. List of used TI and SOP.

Requirements for the person responsible for the introduction and operation of the quality assurance system. Training of staff in the requirements of the quality system. SOP «On the procedure of development of documents of the quality

assurance system»; «On the procedure of maintenance, storage, distribution and updating of internal documentation».

Metrological control of measuring instruments in the pharmacy. SOP «On ensuring operation of measuring instruments».

### **2.3. Nomenclature and qualifications of positions of pharmaceutical employees. Material responsibility in the pharmacy**

Staff of pharmacies. Staffing of pharmacy organization. Nomenclature of positions of employees with higher and secondary specialized pharmaceutical education. Qualification characteristics of positions of pharmaceutical employees.

The concept of financial responsibility, its types. Conditions for bringing an employee to financial responsibility. Individual and collective (team) financial responsibility in pharmacy organizations, their registration.

The procedure for compensation by an employee for material damage caused to the employer.

### **2.4. Licensing of pharmaceutical activities. Licensing of activities related to the trafficking of narcotic drugs, psychotropic substances and their precursors**

The Law of the Republic of Belarus «On licensing». The main concepts: license, applicant license, licensee, licensing. Objectives and principles of licensing. Criteria for attributing activities to licensees. Licensed activities carried out by pharmacy organizations and their structural subdivisions.

Licensing bodies and their powers. Licensing Department of the Ministry of Health of the Republic of Belarus.

The concept of pharmaceutical activity. Works and (or) services that constitute pharmaceutical activities.

Pre-licensing and licensing requirements. Assessing the compliance of the license applicant's capabilities with pre-licensing requirements, and the licensee's compliance with licensing requirements.

Documents submitted to obtain licenses. Procedure for submitting a license. State information system «Unified Register of Licenses». Change of license.

Consequences of identifying violations of licensing legislation. Serious violations of legislation on licensing of pharmaceutical activities.

Fundamentals of state policy in the field of circulation and combating illicit trafficking of narcotic drugs, psychotropic substances, precursors, analogues, prevention of consumption of narcotic drugs, psychotropic substances, analogues. Law of the Republic of Belarus «On narcotic drugs, psychotropic substances, their precursors and analogues». Subjects of trafficking in narcotic drugs, psychotropic substances, precursors, analogues.

Republican list of narcotic drugs, psychotropic substances and their precursors subject to State control in the Republic of Belarus. The criteria according to which narcotic drugs, psychotropic substances used for medical purposes containing other pharmaceutical substances may not be subject to some State control measures. Works and (or) services constituting activities related to the trafficking of narcotic drugs, psychotropic substances and their precursors. Pre-licensing and licensing requirements. List of documents presented by the license applicant.

Serious violations of legislation on the licensing of activities related to trafficking in narcotic drugs, psychotropic substances and their precursors. Features of termination of license, realization of balances, fulfillment of obligations in case of termination of license.

### **3. Organization of drug supply to the population and healthcare organizations**

#### **3.1. Organization of ordering, receiving and storing medicines, medical devices and other pharmaceutical products in a pharmacy**

Organization of interaction «pharmacy - pharmacy warehouse». Accounting of defects. Order of formation and submission of an application by the pharmacy to the pharmacy warehouse.

The procedure of acceptance of medicines, medical products and other goods of the pharmacy assortment in the pharmacy. Acceptance control. SOP «On the procedure of acceptance and implementation of acceptance control»; «On the order of return to suppliers of medicines, medical products, other goods of pharmacy assortment».

Good storage practices for medicines. General requirements for equipment and premises for storing medicines. Instruments for measuring temperature and relative humidity of the environment, the order of their placement. Automated environmental monitoring systems. Control of recording of environmental parameters.

Report on risk analysis during storage of medicines and placement of measuring instruments. Risk register. Management of risks.

Temperature conditions for storing medicines.

Requirements for organizing the storage of various groups of medicines, individual groups of medicines: thermolabile, requiring protection from light, moisture, changing properties under the influence of atmospheric gases, requiring protection from volatilization, having dangerous properties (flammable and flammable (flammable), explosive). Storage of medicinal plant materials containing essential oils, coloring pharmaceutical substances.

SOP «On the procedure for recording environmental parameters and working with deviations»; «On the procedure for storing medicines, including those manufactured in pharmacies, medical devices, and other pharmaceutical products»; «On the procedure for obtaining information about low-quality and falsified medicines and taking further measures».

Monitoring the expiration dates of medicines, medical devices, and other pharmaceutical products. SOP «On the procedure for monitoring the expiration dates of medicines».

Storage of low-quality, falsified medicines withdrawn from circulation, expired medicines, medicines whose sales have been suspended.

#### **3.2. The procedure for writing a doctor's prescription (creating an electronic doctor's prescription). Automated information system «Electronic prescription». Retail sale of medicines, medical devices and other pharmaceutical products**

Doctor's prescription, its meaning. Doctor's prescription forms. The procedure for writing prescriptions for medicines, including in the form of an electronic

document. List of medicinal products for medical use in healthcare organizations, prohibited for retail sale.

Norms for the one-time sale of drugs, narcotic drugs and psychotropic substances, ethyl alcohol, permissible cases of their excess.

The order of prescription of a doctor for narcotic drugs, psychotropic substances and drugs with anabolic activity. List of drugs with anabolic activity.

Features of prescription of pharmacy-made drugs.

List of diseases entitling citizens to free medicines issued by prescription physicians within the scope of the list of essential medicines, out-patient treatment, as well as therapeutic food. Categories of citizens who have the right to free and preferential provision of medicines issued according to doctors' prescriptions within the list of essential medicines, as well as dressings.

The procedure of prescription of a doctor for preferential, including free provision of medicines and dressing materials.

Prescription of medicines for treatment up to six months.

Concept for the development of e-health in the Republic of Belarus. Centralized health information system.

The concept of an electronic prescription doctor. The history of the emergence and development. Automated Information System (AIS) «Electronic Recipe» in the Republic of Belarus. Main purposes of creation, functions.

Types of AIS «Electronic prescription». Implementation and principle of operation of the AIS «Electronic Prescription». Universal Patient ID technology. Maintaining a register of electronic doctor's prescriptions.

Sales of medicines according to electronic prescriptions from a doctor in a pharmacy network. SOP «On the procedure for accepting electronic doctor's prescriptions».

Job responsibilities and qualification requirements for a pharmacist-prescriber (pharmacist-prescriptionist). Equipment and rational organization of the workplace of a pharmacist-prescriptionist (pharmacist-prescriptionist).

The concept of retail sales. The procedure for the sale of medicines, narcotic drugs, psychotropic substances, medicines manufactured by pharmacies in accordance with the requirements of Good Pharmacy Practice. Preparation of the reverse side of a doctor's prescription. Registration of doctor's prescriptions on delayed service. Control in the implementation of medicines. Sale of medicines on prescriptions of a doctor, issued by specialists of veterinary service; on prescriptions of a doctor, issued outside the Republic of Belarus.

The procedure for free and preferential provision of medicines and dressings to certain categories of citizens.

List of medications sold without a doctor's prescription. The procedure for selling medications without a doctor's prescription. Standards for the sale of certain medications without a doctor's prescription. List of alcohol-containing medications that are not sold in pharmacies from 21.00 to 8.00.

SOP «On the procedure for the sale of medicines», «On the procedure for pharmaceutical consultation of the population regarding medicines during their sale».

The procedure for submitting information about identified adverse reactions to drugs. SOP «On the procedure for submitting information about identified adverse reactions to drugs».

### **3.3. Pharmaceutical examination and taxing of doctor's prescription**

The procedure of pharmaceutical examination of the doctor's prescription. The duration of the doctor's prescriptions. Procedure of prescription provisor (prescription pharmacist) when receiving prescription of a doctor, issued in violation of the requirements of the legislation of the Republic of Belarus on the procedure of prescription of a doctor. Accounting for incorrectly written doctor's prescriptions.

The procedure for registering doctor's prescriptions for pharmaceutical drugs.

Taxing of doctor's prescriptions. Conversion of individually manufactured dosage forms into prescription numbers.

Periods of keeping doctor's prescriptions in the pharmacy. The procedure for destroying doctor's prescriptions after the period of their presence in the pharmacy has expired. SOP «On the procedure for destroying doctor's prescriptions».

### **3.4. Organizing the work of a pharmacy in the production, packaging, labeling and quality control of medicines, carrying out laboratory (packing) work**

Organization of the work of pharmacies of the first category for the pharmaceutical production of medicines according to doctor's prescriptions and the requirements (applications) of healthcare organizations.

Job responsibilities, qualification requirements for pharmacist-technologist and pharmacist-assistant. Equipment, equipment and rational organization of workplaces for pharmacist-technologist and pharmacist-assistant. SOP «On the procedure for checking the operability of technological equipment and measuring instruments before starting work».

Compliance with sanitary and hygienic requirements in the pharmacy production of medicines, including sterile forms and medicines manufactured in aseptic conditions. The procedure of registration of individual stages of manufacture and control of sterile medicines.

Organization of in-pharmacy procurement and packaging for drugs (combinations of several drugs) often found in doctor's prescriptions and requirements (applications), manufactured in a pharmacy. Documentation of laboratory (packing) work in the pharmacy.

Job descriptions, qualification requirements for a provisor-analyst. Equipment, equipment and rational organization of the work place of the provisor-analyst.

The procedure and conditions for quality control of medicines manufactured in a pharmacy. Types of quality control: written, organoleptic, physical, chemical, microbiological. Documentation of quality control results. Special requirements for quality control of sterile medicines.

Improvement of the system of sales of medicines. System of queues management in the pharmacy (electronic queue). System of pre-electronic order of medicines. Internet booking. Infokioski. Retail sale of medicines remotely. Requirements for organizations that have the right to carry out retail sales remotely. Pharmacy robots. Vending machines in pharmacies.

Retail sale of medicines in the places of international thematic exhibitions, international sports, as well as cultural and mass events.

Introduction of methods and forms of work to improve the public image of medicines of Belarusian (Russian) production and their promotion in the pharmaceutical market.

### **3.5. Fundamentals of pharmacoeconomics. Organization of drug provision for patients receiving medical care in inpatient settings. Organization of work of a hospital pharmacy**

Basic concepts and terms of pharmacoeconomics. Methods, stages of pharmacoeconomic research. Choosing a pharmacoeconomic research method. Costs as a pharmacoeconomic category, their classification. Pharmacoeconomic studies «cost-effectiveness», «cost minimization», «cost-utility», «cost-benefit». Cost of illness analysis. Discounting in pharmacoeconomic analysis. Defined daily doses method (DDD method). Quality-adjusted life years indicator (QALY indicator). Disability-adjusted life year indicator (DALY indicator), its use in pharmacoeconomic studies.

Use of the results of pharmacoeconomic research in the procurement of drugs for the provision of medicines to patients in hospital. Formation of annual requests for medicines and medical devices.

Possibilities of pharmacoeconomic analysis to optimize the economic efficiency of the use of drugs in a hospital. The problem of generic replacement of drugs.

Nomenclature of hospital organizations. The procedure for providing medicines to patients in hospital conditions. Clinical protocols (methods of providing medical care) approved by the Ministry of Health.

Evidence-based medicine as the basis for the development of clinical protocols (methods of medical care). Formular system. Republican formulary of medicines, formation procedure. Formal commissions. Ensuring the availability of medicines and medical devices in healthcare organizations in accordance with the Republican Formulary of medicines and the Republican Formulary of medical devices.

Pharmacies of hospital organizations, classification, tasks, functions, features of work organization. Composition of premises, equipment of a hospital pharmacy. States of hospital pharmacies.

Rules for filing requirements (applications) for the dispensing of medicines, medical devices and other pharmaceutical products to hospital organizations and (or) their structural divisions.

Dispensing of medicines by hospital pharmacies. Vacation control. SOP «On the procedure for dispensing medicines according to the requirements (applications) of hospital organizations and (or) their structural divisions»; «On the procedure and terms of storage of requirements (applications) of hospital organizations and (or) their structural divisions»; «On the procedure for monitoring storage conditions and expiration dates of medicines, including those manufactured in hospital pharmacies, in hospital organizations and (or) their structural divisions».

The procedure for the purchase and release (distribution) of narcotic drugs and psychotropic substances by hospital pharmacies.



The procedure for the purchase, storage and release (distribution) of narcotic drugs, psychotropic substances and medicines belonging to list «A» by hospitals and palliative hospitals.

Providing medicines and medical devices to day care departments of state health care organizations.

### **3.6. Medicine provision for rural population. Organization of work of the central district pharmacy**

Features of drug provision for rural population. The procedure for organizing a central district pharmacy (CDP). The main tasks and functions of the CDP: administrative, organizational and methodological, procurement, coordinating and controlling. The role of the CDP as an organizational and methodical center in the region. States of the CDP. Attached pharmacy network. Supply of attached pharmacies.

Interdistrict Central Pharmacies. The procedure for the sale of pharmaceuticals of pharmaceutical manufacture in areas where there are no pharmacies of the first category.

The procedure for the retail sale of medicines by a medical employee of a state healthcare organization or its structural unit located in rural settlements, as well as during on-site medical examinations of the population. Minimum list of medications that must be available to a medical professional for retail sale.

## **4. Purchase, promotion, distribution of medicines, medical devices and other pharmaceutical products**

### **4.1. Government procurement of medicines and medical devices. Purchasing policy of a pharmacy organization**

Public procurement: basic concepts. The procedure for forming an application for medicines and medical nutrition, organizing public procurement of medicines. Information and analytical support for public procurement.

Types of public procurement procedures. Order of electronic auction. Procedure of procurement from a single source.

Improved procedures for procurement of medicines.

Objectives and goals of the purchasing policy of a pharmacy organization. Formation of a market for trade offers.

Wholesale intermediaries, classification, functions.

Requirements for the distribution of medicines.

Documentation of purchasing transactions. Supply contract: structure, functions, conclusion procedure. Execution of the supply contract.

### **4.2. Order of purchase, storage, sale of narcotic drugs and psychotropic substances in pharmacy and pharmacy warehouse**

General regulations on the treatment of narcotic drugs and psychotropic substances.

Organization of storage of narcotic drugs and psychotropic substances. Requirements for technical reinforcement and for the provision of technical security systems for premises intended for the storage of narcotic drugs and psychotropic substances.

The procedure for the acquisition and sale of narcotic drugs and psychotropic substances by pharmacy warehouses.

The order of purchase, sale, release (distribution) of narcotic drugs and psychotropic substances by pharmacies (hospital pharmacies).

The order of purchase, storage of medicines list «A».

### **4.3. The procedure for importing medicines, medical devices and other pharmaceutical products into the Republic of Belarus. Harmonization of regulatory legal support for the circulation of medicines in the Eurasian Economic Union**

Regulation of the procedure for importing medicines into the customs territory of the EAEU. Cases of import of unregistered medicines into the Republic of Belarus. A unified list of goods to which prohibitions or restrictions on import or export by EAEU member states apply in trade with third countries. Commodity nomenclature of foreign economic activity of the EAEU: concept, characteristics.

The procedure for obtaining permission to export and import narcotic drugs, psychotropic substances and their precursors.

Customs clearance of goods importation. The procedure for declaring goods. Customs payments. The concept of customs procedure. Customs procedure for release for domestic consumption.

EAEU as a form of interstate integration. Purposes of creation. Treaty on the EAEU. Agreement on uniform principles and rules for the circulation of medicines within the EAEU. International legal acts constituting the law of the EAEU in the field of circulation of medicines.

Information support of the pharmaceutical market of the EAEU: an information directory of concepts on the treatment of medicines; rules for determining the categories of drugs sold without prescription and by prescription of a doctor; Uniform requirements for the labelling of medicines and instructions for medical use (leaflet-insert). Structure, procedure of formation and maintenance of the Single Register of registered medicines of the EAEU.

Monitoring of adverse drug reactions. Rules of good pharmacovigilance practice of the EAEU. Pharmacovigilance system. Responsibilities of the authorized bodies of the Member States in the pharmacovigilance system. Suspension of the sale and medical use of medicines or withdrawal from circulation of low-quality and falsified medicines, as well as medicines with an established unfavorable benefit-risk ratio.

Unified information base of the EAEU on suspended, recalled and prohibited drugs for medical use. The procedure for interaction between EAEU member states in identifying counterfeit medicines. The system of labeling and traceability of medicines in the EAEU countries.

### **4.4. Organization of the operation of pharmacy warehouses in accordance with the rules of the Good Distribution Practice of the EAEU**

Wholesale of medicines (distribution), legal basis of its regulation. Rules of Good Distribution Practice within the EAEU.

Pharmacy warehouse: tasks, functions. Quality system of the pharmacy warehouse. Documents of the quality system. Personnel of the pharmacy warehouse.

Responsible person. Premises, equipment, zoning of pharmacy warehouse. Qualification and validation of equipment and processes. Risk management for quality.

The organizational structure of the pharmacy warehouse of Republican Unitary Enterprise (RUE) «Pharmacy» system.

Organization of work of admissions department. Evaluation of suppliers.

Organization of storage of medicines at the pharmacy warehouse. Address storage. Temperature mapping. Quarantine storage of medicines.

Storage of low-quality, counterfeit medicines withdrawn from circulation, expired medicines, medicines whose sale has been suspended, returned medicines.

Computerized systems in the operation of the pharmacy warehouse.

Organization of the work of the expedition department of the pharmacy warehouse. Evaluation of customers (recipients) in the process of distribution of medicines. Complete orders on requests of pharmacies and healthcare organizations. Expedition and shipment of goods. Export of medicines.

Claims, returns, suspicions of falsification and recall of medicines from circulation.

Outsourced drug distribution activities.

The procedure for destroying medicines that have become unusable.

#### **4.5. Pharmaceutical logistics. Procedure and conditions for transportation of medicines, medical devices and other pharmaceutical products**

A brief history of logistics and basic concepts. Types of logistics depending on the nature of production activities.

Features of pharmaceutical logistics.

Requirements for the transportation of medicines, medical devices, and other pharmaceutical products. Compliance with storage conditions for medicines during transportation, including the organization of a cold chain for thermolabile medicines.

Organization of work with deviations when the temperature goes beyond the established limits. Rules for the operation of thermal bags (thermal containers) equipped with cold elements.

#### **4.6. Organization of self-inspection in a pharmacy and pharmaceutical warehouse**

Self-inspection in a pharmacy at a pharmaceutical warehouse as one of the elements of the quality assurance system. Frequency and procedure for self-inspection in accordance with the legislation of the Republic of Belarus. Plan for self-inspection in a pharmacy and pharmaceutical warehouse. Stages of self-inspection and their documentation.

Preparation of a report on the results of the self-inspection, recommendations on actions to eliminate violations. Plan of corrective and preventive actions (measures) to eliminate the violations identified during the self-inspection.

SOP «On the procedure for conducting self-inspection».

#### **4.7. Organization of work of the control and analytical (testing) laboratory**

Control and analytical (testing) laboratory: organization of work, staffing. Accreditation of a control and analytical (testing) laboratory in the National Accreditation System of the Republic of Belarus for drug testing. Interstate standard

GOST ISO/IEC 17025-2019 «General requirements for competence of testing and calibration laboratories». Laboratory management system: management system documentation; management of management system documents; records management; actions related to risks and opportunities; improvements; corrective actions; internal audits; management analysis.

#### **4.8. Information and advertising activities in pharmacy**

The concept of pharmaceutical information, its meaning and types. Primary and secondary sources of pharmaceutical information. Methods of searching and collecting information. Means of information transmission.

Medical resources of the Internet. National legal Internet portal of the Republic of Belarus PRAVO.BY. Analytical legal system Business-Info. Information retrieval system STANDARD ONLINE.

Main directions of information activities in pharmacy. Reference and information services of pharmacy organizations. Pharmaceutical reference service. Job responsibilities, qualification requirements for a pharmacist-informant.

Law of the Republic of Belarus «On Advertising»: basic concepts, types of advertising. General requirements for advertising. Requirements for advertising of medicines, medical devices, biologically active food additives. Procedure for advertising distribution. The list of specialized publications in which advertising of medicines and medical devices is permitted without the approval of the Ministry of Health of the Republic of Belarus.

Evaluation of advertising effectiveness, advertising ethics.

The procedure and conditions for informing medical and pharmaceutical workers about medicines included in the State Register of Medicines of the Republic of Belarus by representatives of medicine manufacturers.

#### **4.9. Organization of pharmacy abroad**

Features of health systems around the world.

Structure of management of subjects of pharmaceutical market in different countries of the world.

Right to pharmaceutical activity. Licensing requirements for professionals abroad. Procedure of opening pharmacies abroad.

Pharmacy manufacturing and quality control of medicines.

Classification of medicines abroad.

Pharmaceutical education and pharmacy functions.

Preferential provision of medicines abroad.

Internet pharmacies.

#### **4.10. International cooperation in healthcare and pharmacy. Pharmaceutical public associations**

Support and development of international cooperation as one of the principles of state policy in the field of circulation of medicines. Forms of international cooperation.

Cooperation with international organizations. United Nations Development Program (UNDP). Collaboration with the World Health Organization (WHO). World Health Organization in Belarus. Cooperation with the United Nations Children's Fund (UNICEF). Joint United Nations (UN) Program on HIV/AIDS (UNAIDS). Global

Fund to Fight AIDS, Tuberculosis and Malaria. United Nations Population Fund (UNFPA). The World Bank. Cooperation program on pharmaceutical inspections, with the UN International Narcotics Control Board, the UN Scientific Committee on the Effects of Atomic Radiation, the European Pharmacopoeial Commission, the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological and Toxin Weapons and on Their Destruction.

Industry interaction with member states of the Commonwealth of Independent States within the framework of the Council for Cooperation in the Field of Healthcare.

Bilateral cooperation with foreign countries. Cooperation within the EAEU. Union State programs.

Pharmaceutical public associations. International Pharmaceutical Federation. Republican public association of pharmaceutical workers «PHARMABEL», Belarusian Red Cross Society. Belarusian Trade Union of Health Workers.

## **5. Accounting and analysis of the financial and economic activities of a pharmacy organization**

### **5.1. General characteristics of business accounting. Organization of accounting**

Economic accounting, goals and tasks. Requirements for accounting. Law of the Republic of Belarus «On accounting and reporting». Accounting meters and types of economic accounting. Classification of household means of pharmacy and sources of their education. The use of computer technologies in accounting transactions.

Legal and methodological basis for organizing and maintaining accounting records in pharmacy organizations. Basic provisions of the Law of the Republic of Belarus «On Accounting and Reporting». Basic concepts and their definitions. Basic elements of accounting method. Principles of accounting.

Basic requirements for accounting. The concept of a primary accounting document. Documentation of business transactions. Accounting registers.

The accounting policy of the organization, the principles of its formation and its importance in the organization of accounting.

Storage of accounting and reporting documents.

### **5.2. Accounting for receipt of inventory items in a pharmacy**

Goods. Classification of goods. Sources of receipt of inventory items in the pharmacy.

Rules for filling out standard forms of primary accounting documents consignment note -1 (TTN-1 или CN-1) and consignment note -2 (TN-2 CN-2). Consignment notes and waybills created in the form of electronic documents (electronic waybills).

Recording the arrival of goods at the pharmacy.

Features of acceptance of drugs of list «A», narcotic drugs, psychotropic substances and ethyl alcohol. The procedure for setting retail prices for medicines and medical devices.

### **5.3 Accounting for the consumption of inventory items in a pharmacy**

The tasks of accounting for sales of goods. Types of consumption of goods in a pharmacy: the expense associated with sales (dispensing), disposal of goods.

Registration of sales according to prescriptions of a doctor for medicines of industrial production and pharmacy manufacture.

Accounting of intrapharmacy blank and packings.

Accounting for the sale of medicines and dressing material on preferential terms, including free of charge.

Accounting for the sale (release) of medicines according to the requirements of health organizations.

Recording of internal movement of goods in the pharmacy.

Recording of intra-pharmacy operations causing a decrease in the value of stock in the pharmacy.

#### **5.4. Accounting for fixed assets in a pharmacy. Accounting for inventory in a pharmacy**

Fixed assets of a pharmacy: composition, classification and conditions for their recognition in accounting. Problems of fixed assets accounting. Valuation of fixed assets.

Changes in the original cost of fixed assets, revaluation and impairment.

Documentation of receipt and disposal of fixed assets.

The concept of depreciation of fixed assets, methods and order of its accrual in linear, non-linear, productive ways.

Methodological bases and order of formation of information about reserves in accounting. Classification of inventories (materials; assets in circulation). General principles of their valuation.

Characteristics, purpose, tasks of accounting for materials (auxiliary materials, semi-finished products and components, fuels and lubricants (горюче-смазочные материалы), spare parts, containers, etc.). Documentation of receipt and release of materials from the warehouse.

Characteristics of packaging in a pharmacy, its types. Features of packaging accounting. Accounting and methods for writing off auxiliary materials in a pharmacy.

Characteristics, purpose, tasks of accounting for individual items as part of funds in circulation (inventory, household supplies, tools, special (protective), uniform and branded clothing and shoes, etc.). Features of accounting of individual items as part of funds in circulation.

#### **5.5. Accounting for funds in a pharmacy**

The concept of «cash». Forms of monetary circulation. Cash accounting tasks.

The procedure for using cash register equipment and payment terminals. State register of models (modifications) of cash registers and special computer systems approved for use on the territory of the Republic of Belarus. Tax authorities control tool (TACT), cash register equipment control system (CRECS). The procedure for accepting means of payment when selling goods in a pharmacy.

The procedure for conducting cash transactions and cash settlements on the territory of the Republic of Belarus.

Accounting and documentation of incoming and outgoing cash transactions in a pharmacy. Methods of depositing proceeds to the servicing bank. Preparing cash for delivery to collection service employees.

Cash book and the procedure for maintaining it.

### **5.6. Accounting in the pharmacy forms and documents with a degree of protection**

Accounting of transactions on the settlement account. Order of opening accounts to the bank's clients.

List of forms and documents with a certain degree of protection, to be recorded in the pharmacy. The procedure of their acquisition, storage, expenditure and write-off.

### **5.7. Accounting reports of the pharmacy organization. The basics of accounting balance**

The essence of the balance sheet generalization and its role in accounting. General concept of the balance sheet. Content and structure. Sections and balance sheets. Types of balances.

Changes in the balance sheet due to business transactions.

Accounting accounts, their types, structure, relationship with the balance sheet. Order of entries in accounts. Double entry of transactions in accounts and its essence. Correspondence accounts and accounting records (posting). Simple and complex accounting entries. Synthetic and analytical accounting accounts, their interrelationship. Drawing up balance sheets for synthetic and analytical accounts. Classification of accounts by economic content, structure and purpose. Balance sheet and off-balance sheet accounts. Standard chart of accounts, charts of accounts.

Types of reporting. The essence and significance of financial statements, principles of preparation. Requirements for reporting and deadlines for its submission. Composition of financial statements.

The procedure for drawing up the sections of the monthly report of the pharmacy: «Cash flow and revenue collection», «Commodity report», «Movement of fixed assets, Materials, Packaging and Other Goods», «Circulating sheet for settlements with buyers by non-cash settlement, «Movement of goods and receipts by subdivisions of pharmacy». The procedure of submission, consideration and approval of the pharmacy report on financial and economic activities for a month.

The concept of «commercial secret». Liability for violation of the legislation on commercial secrets.

### **5.8. Accounting of work and salary. Remuneration of work in pharmaceutical organizations**

Tasks of work and salary accounting.

Forms and systems of remuneration and their application in pharmaceutical organizations.

Working time, its accounting. Full and reduced working time. Part-time work. Rest time. Breaks for rest and nutrition.

Counting of the number of employees and the time worked. Cumulative work time accounting.

State guarantees for the remuneration of employees.

Payroll calculations and accounting. Salary fund.

Criteria for setting salaries for employees of hospital pharmacies and employees of commercial organizations.

The procedure for calculating wages for pharmacy employees. Additional

payments and allowances to tariff salaries.

Bonus system for pharmacy workers. Mandatory payments to employees in accordance with adopted local regulations.

### **5.9. Deductions from salary. Payment of leave and benefits**

Types of deductions from salary (mandatory at the employer's initiative, on the employee's initiative).

Procedure of income tax: payers, tax base and rate, tax deductions. Income exempted from income tax.

Retention to the social protection Fund of the population. Deductions on executive documents. Limit the amount of deductions from salary.

Concept of leave. Types of holidays. Provision of employees of pharmacies with work and social leave. Payment of holidays. Order of calculation of holidays.

The procedure for providing benefits for temporary disability, pregnancy and childbirth. Calculation of temporary disability benefits. Payment of severance pay.

Guarantee and compensation payments. Payment of travel expenses.

### **5.10 State control (supervision) and audit in pharmacy organizations**

Control and supervisory activities in the Republic of Belarus. Forms of state control (supervision): technical (technological, verification) measures; preventive and precautionary measures; random checks; unscheduled inspections.

Planning, procedure for organizing and conducting inspections. Criteria for classifying business entities as a risk group when developing a plan for random inspections. Documents drawn up based on the results of inspections.

Monitoring as a form of state control.

Control of the activities of the pharmacy organization. Control and supervisory authorities.

The state institution «State pharmaceutical supervision in the sphere of treatment of drugs «Gospharmnadzor», the main tasks.

Audit, its types, purpose and place in the control system.

### **5.11 Pharmaceutical inspection**

Concepts of «inspection (pharmaceutical inspections)», «pharmaceutical inspectorate». Department of Pharmaceutical Inspection of the Main Department of control of medical activity and treatment of medicines of the Ministry of Health of the Republic of Belarus, main tasks of the department. Register of Pharmaceutical Inspectors of the Republic of Belarus.

The procedure for inspection (pharmaceutical inspections) of stages (processes) of circulation of medicinal products for compliance with the requirements of good pharmaceutical practices.

Inspection (pharmaceutical inspection) of industrial production (pharmacy production) of a medicinal product if it is found to be of poor quality.

General requirements to the quality system of pharmaceutical inspectors of EAEU member states. The order of formation and maintenance of the register of pharmaceutical inspectors of the EAEU. Rules of pharmaceutical inspections. Procedures for ensuring joint pharmaceutical inspections. Recognition of inspection results.



Organizational and pharmaceutical department of RUE «Pharmacia», its tasks and functions. Job responsibilities, qualification requirements for a pharmacist-inspector.

Objectives, tasks, types, procedure, approximate scheme of pharmaceutical inspection of a pharmacy. Comprehensive pharmacy inspections. Drawing up an inspection report.

### **5.12 Taxation of pharmacy organizations**

Tax system. Principles and functions of tax systems. Tax law. The concept of taxes, fees (duties). Classification of taxes. Subjects (payers) of taxes. Basic elements of taxation. Types of tax rates, Laffer curve. Tax benefits. Procedure for calculating taxes.

Taxes and deductions of pharmacy organizations: deductions to the Social protection fund and Belgosstrakh, value added tax, income tax, advertising fees, deductions of part of the profits of unitary enterprises; contributions to the off-budget centralized investment fund of the Ministry of Health of the Republic of Belarus, etc.

Tax control. Legal liability for violation of tax laws.

### **5.13 Inventory of assets and liabilities in a pharmacy**

Inventory concept. Types, tasks, reasons for conducting an inventory. Timing and frequency of inventories.

Composition, rights and responsibilities of inventory commissions. General procedure for conducting inventory.

Inventory of long-term and short-term assets. Inventory of obligations. Cash register inventory. Drawing up inventory lists, matching statements based on inventory results, calculating natural loss.

The procedure for regulating inventory differences.

### **5.14 Subject-quantitative accounting in the pharmacy**

List of drugs, narcotic drugs, psychotropic substances and ethyl alcohol, subject to specific quantitative accounting in pharmacy. Documentation of subject-quantitative accounting. Accounting for ethyl alcohol.

Norms of natural loss of medicines, cotton wool, ethyl alcohol in pharmacies, pharmaceutical warehouses, control and analytical (testing) laboratories.

The procedure for calculating natural loss.

Subject-quantitative accounting in a hospital pharmacy and departments of healthcare organizations.

## **6. Fundamentals of the economy of the pharmacy organization**

### **6.1. Fundamentals of economic analysis**

Economic analysis as a function of the management system. Types and tasks of economic analysis. Sources of information for analysis. Use of accounting balance in economic analysis.

Stages of economic analysis. Features of pharmacy economics.

Methods and working techniques of economic analysis. Formalized (mathematical) methods of analysis (comparison, use of absolute, average and relative values, balance, graphic, correlation and regression). Informal methods of economic analysis.

Comprehensive economic analysis, generalization and presentation of its results.

### **6.2 Analysis and planning of pharmacy compounding**

Classification of pharmacy compounding, its meaning. Factors influencing the volume of the pharmacy compounding. Sources of information for pharmacy compounding analysis and planning. Methods for planning outpatient and inpatient prescriptions for existing and newly opened pharmacies.

### **6.3 Analysis and planning of pharmacy turnover**

Characteristics of turnover of pharmacy organizations, its importance as an indicator of pharmacy performance. Structure of pharmacy turnover. Factors influencing the amount of trade turnover. Sources of information for analyzing trade turnover. Tasks of trade turnover analysis. Methods for planning commodity turnover by component parts.

### **6.4 Analysis and rationing of inventory in the pharmacy and pharmacy warehouse**

Pharmacy inventories, their characteristics. Classification of inventory. Factors influencing the volume of pharmacy inventory. Determination of the average amount of inventory. Inventory turnover and methods for its calculation. Analysis and planning of inventory. Planning the receipt of goods at the pharmacy.

The influence of pharmacy economics on turnover. Inventory turnover in pharmacy warehouses. Inventory of pharmaceutical warehouses.

### **6.5 Analysis and planning of work and salary indicators**

Basic indicators and characteristics of the work and wage plan.

Productivity of pharmacy workers. Factors that affect the growth of productivity. Calculation of the planned labor productivity.

Factors influencing changes in the number of employees. Analysis and planning of the number of employees in a pharmacy organization.

Contents of the wage fund of a pharmacy organization and principles of its planning. Adjustment of the salary fund.

### **6.6 Analysis and planning of sales costs, profits and profitability of pharmacies**

The concept of sales costs (distribution costs). Grouping of sales costs by item: costs of rent (short-term leasing) of fixed assets; expenses for the maintenance of structures, premises and equipment; depreciation of fixed assets and intangible assets; fare; remuneration of employees; expenses for repair and maintenance of fixed assets; the cost of individual items as part of funds in circulation; cost of consumed fuel and energy resources; expenses for storage and packaging of goods; advertising expenses; loss of goods during transportation, storage and sale within normal limits; packaging costs; taxes, deductions and fees included in sales costs; other expenses.

Factors influencing the level of sales costs. Analysis and planning of cost items for implementation.

Profit as the main resulting and informational indicator of the organization's activities. Types of profit. Non-operating income and expenses. The economic essence of profit. Analysis and planning of gross and net profit.

Profitability: definition, types, planning. Factors influencing the profit margin and profitability of pharmacies.

### **6.7 Assortment and pricing policy of the pharmacy organization. Determining the need for medicines, medical devices and pharmaceutical products**

The concept of assortment. Types of assortment. Purpose, objectives and significance of the assortment policy of a pharmacy organization. Factors influencing the formation of the assortment of a pharmacy organization. Methods of analysis and management of the product range of a pharmacy organization. Formation of an assortment of medicines, medical devices and other pharmaceutical products. Ensuring the availability of medicines from the list of essential medicines in pharmacies. SOP «On ensuring the availability of a range of medicines in the pharmacy».

Structure and types of prices. Price functions. Factors influencing the price level. Pricing policy of pharmaceutical enterprises and pharmacy organizations. Direct and indirect price regulation on the pharmaceutical market of the Republic of Belarus. The procedure for setting prices for medicines, medical devices and other pharmaceutical products. Reference pricing.

Basic concepts: need, requirement, demand, consumption. Types of demand. Types of consumption. Factors shaping the consumption of medicines and medical devices.

Methods for studying demand and determining the need for medicines and medical products: normative, sociological, economic and mathematical, method of expert assessments.

Job responsibilities, qualification requirements for a pharmacist-marketer.

Demand formation and sales promotion in pharmacy

### **6.8 Financial management in pharmacy. Development of a business plan for the development of a pharmacy organization**

Concept, purpose, objectives and functions of financial management. Features of financial flow management in the conditions of formation of the medicines market. Capital of the organization, sources of its formation. Forms and methods of raising borrowed funds (bank loans, loans, leasing, factoring, franchising, bonds). Organizational capital management.

Analysis of the financial condition of organizations: current liquidity ratio, ratio of provision of own working capital, ratio of provision of organizations with assets and other indicators.

Types of risks, financial risk management.

Concept and content of a business plan. Role and purpose, functions of the business plan. Development approaches. Basic requirements for a business plan for the development of a pharmacy organization, stages of development, structure and content of typical sections of a business plan for the development of a pharmacy organization.

## **7. Regulation of work relations and organization of work with the public in pharmacy organizations**

### **7.1. Staffing of a pharmacy organization**

Training of specialists with pharmaceutical education in the Republic of Belarus: basic education (higher and secondary pharmaceutical education, master's degree preparation). Transition to a system of continuous higher pharmaceutical education.

Legal aspects and requirements for occupying positions of pharmaceutical workers.

Timing, procedure for organizing and completing the internship. Criteria according to which healthcare organizations can serve as bases for internships. Job responsibilities of a pharmacist-intern. Categories of persons who are granted the right to take a qualification exam without undergoing an internship.

Additional education for adults – advanced training and retraining of managers and specialists.

Professional certification of pharmaceutical workers. Accounting for professional training time.

The procedure for assigning qualification categories to pharmaceutical employees. Confirmation of qualification categories.

Certification for suitability for the position held. Requirements for occupying positions of pharmaceutical employees. Work with personnel reserve. SOP «On training pharmacy workers and testing the effectiveness of their knowledge».

Indicators characterizing the movement of personnel in a pharmacy organization (headcount, selection intensity, constancy rate, turnover rate).

### **7.2. Regulation of work relations in pharmacy organizations**

Basic concepts and terms. Principles of labor law. Constitutional right to work. Sources of labor law.

General rules for regulating individual work and related relations. Employment contract. A contract is a type of fixed-term employment contract. Duration, form, content and conditions of the employment agreement (contract). Documents required when concluding an employment agreement (contract). Grounds for termination of an employment agreement (contract).

Personnel files. Personnel files.

The procedure for keeping employment records. Keeping employment records.

The concept of work experience. Total work experience, work experience in the specialty. Insurance experience.

### **7.3. Labor discipline. Disciplinary responsibility of employees**

The concept of work discipline. Means of influence on the behavior of employees, contributing to the maintenance of the necessary level of work discipline.

Directives and Decrees of the President of the Republic of Belarus on strengthening work discipline, strengthening requirements for management personnel and employees of organizations.

Internal work regulations, main sections and development procedure.

Collective agreement, agreement.

Job descriptions, major sections, development procedures.

Disciplinary misconduct. Disciplinary measures. The procedure for disciplining employees who have violated the executive, work and industrial-technological discipline.

Rewards for work.

#### **7.4. Protection of consumer rights in the sphere of circulation of medicines, medical devices and other pharmaceutical products**

Law of the Republic of Belarus «On the protection of consumer rights». Consumer rights. Ensuring compliance with consumer rights in pharmacy organizations. «One window» principle. Civil liability for violation of consumer rights, for inappropriate information about a product (work, service). SOP «On claims regarding the quality of medicinal products (working with complaints).

State protection of consumer rights, creation of public associations of consumers.

#### **7.5. Organization of the pharmacy with appeals of citizens. Information technology and automation in the activities of pharmaceutical organizations**

Organization of work with citizens' appeals. Classification of requests. Basic provisions of the Law of the Republic of Belarus «On appeals of citizens and legal entities».

State unified (integrated) republican information system for recording and processing appeals from citizens and legal entities.

The procedure of appeal of citizens during «hotlines» and «direct telephone lines» by state bodies, state and other organizations.

The procedure for issuing, maintaining and storing the Book of comments and suggestions.

SOP «On the procedure of servicing the population, conflict resolution and consideration of appeals».

The procedure for the sale of medicines under insurance programs.

Information technology software. The information system «Belarusian pharmacy», its possibilities for automation of operational-technical, managerial and primary accounting in the pharmacy network, interaction with the help service and pharmacy warehouse. Platform - «1 C: Enterprise 8.2».

Information system of accounting and management of pharmacy warehouse. Electronic bases «Healthcare», «Medicinal provision», «Personnel», «Young specialist», «Pharmaceutical inspection», «Occupational disease».

Automation of workflow, accounting and planning, help service of pharmacies. Nomenclature of the pharmacy organization. Pharmacy robotics, dispensary robots.

Information protection in the field of information and communication technologies in pharmaceutical organizations.

**ACADEMIC DISCIPLINE «ORGANIZATION AND ECONOMICS OF PHARMACY»  
CURRICULAR CHART**

Section, topic #	Section (topic) name	Number of hours		Supervised student independent work	Practical skills	Form of control	
		lectures	practical (laboratory or seminars)			of practical skills	of current / intermediate assessment
<b>5 semester</b>							
	<b>Lectures</b>	<b>18</b>	<b>-</b>	<b>6</b>			
1.1.	Introduction to the academic discipline «Organization and Economics of Pharmacy». Regulatory support of healthcare and pharmacy	1,5	-	-			
1.2.	Health care structure of the Republic of Belarus. State policy in the field of healthcare and pharmacy						
1.3.	Pharmacy organization as a business entity. Organizational and legal forms. Procedure for state registration and liquidation	1,5	-	-			
2.1.	The procedure for opening, establishing and equipping pharmacies in accordance with the requirements of Good Pharmacy Practice. Design and decoration of the pharmacy sales area in accordance with the requirements of Good Pharmacy Practice and merchandising principles	1,5	-	1,5			Tests
2.2.	Sanitary and epidemiological requirements for the maintenance and operation of pharmacies. Standardization of pharmaceutical activities. Quality assurance system in pharmacy	3,0	-	-			
			-	-			
2.3.	Nomenclature and qualifications of positions of pharmaceutical employees. Material responsibility in	1,5	-	-			

	the pharmacy					
2.4.	Licensing of pharmaceutical activities. Licensing of activities related to the trafficking of narcotic drugs, psychotropic substances and their precursors	1,5	-	-		
3.1.	Organization of ordering, receiving and storing medicines, medical devices and other pharmaceutical products in a pharmacy	1,5	-	-		
3.2.	The procedure for writing a doctor's prescription (creating an electronic doctor's prescription). Automated information system «Electronic prescription». Retail sale of medicines, medical devices and other pharmaceutical products	1,5	-	1,5		Tests
3.3.	Pharmaceutical examination and taxing of doctor's prescription	1,5	-	1,5		Control work
3.4.	Organizing the work of a pharmacy in the production, packaging, labeling and quality control of medicines, carrying out laboratory (packing) work	1,5	-	1,5		Control work
3.5	Fundamentals of pharmacoeconomics. Organization of drug provision for patients receiving medical care in inpatient settings. Organization of work of a hospital pharmacy	-	-	-		
3.6.	Medicine provision for rural population. Organization of work of the central district pharmacy	1,5	-	-		
	<b>Laboratory lessons</b>	-	<b>68</b>	-		
1.1.	Introduction to the academic discipline «Organization and Economics of Pharmacy». Regulatory support of healthcare and pharmacy	-	4	-		frontal surveys, electronic tests
1.2.	Health care structure of the Republic of Belarus. State policy in the field of healthcare and pharmacy	-	4	-		frontal surveys, electronic tests
1.3.	Pharmacy organization as a business entity. Organizational and legal forms. Procedure for state registration and liquidation	-	4	-		frontal surveys, electronic tests
	<i>Final lesson 1.1-1.3</i>		4			colloquium*

2.1.	The procedure for opening, establishing and equipping pharmacies in accordance with the requirements of Good Pharmacy Practice. Design and decoration of the pharmacy sales area in accordance with the requirements of Good Pharmacy Practice and merchandising principles	-	4	-			Abstracts, frontal surveys
2.2.	Sanitary and epidemiological requirements for the maintenance and operation of pharmacies. Standardization of pharmaceutical activities. Quality assurance system in pharmacy	-	4	-	Filling out the Measuring Instruments Logbook.	performing practical work	solving situational problems, frontal surveys
2.3.	Nomenclature and qualifications of positions of pharmaceutical employees. Material responsibility in the pharmacy	-	4	-	Completing the Breeding Logbook disinfection solutions	performing practical work with grading	frontal surveys
2.4.	Licensing of pharmaceutical activities. Licensing of activities related to the trafficking of narcotic drugs, psychotropic substances and their precursors	-	4	-			solving situational problems, frontal surveys
	<i>Final lesson 2.1-2.4</i>	-	4	-			colloquium*
3.1.	Organization of ordering, receiving and storing medicines, medical devices and other pharmaceutical products in a pharmacy	-	4	-			frontal surveys
3.2.	The procedure for writing a doctor's prescription (creating an electronic doctor's prescription). Automated information system «Electronic prescription». Retail sale of medicines, medical devices and other pharmaceutical products	-	8	-			control survey, solving situational problems
3.3.	Pharmaceutical examination and taxing of doctor's prescription	-	8	-	Conduct pharmaceutical examination and taxation of prescription forms Registration of recipes in the Logbook of incorrect prescriptions issued	Solving situational problems using the case method	control survey, solving situational problems



					Filling out the act of destroying doctor's prescriptions		
3.4.	Organizing the work of a pharmacy in the production, packaging, labeling and quality control of medicines, carrying out laboratory (packing) work	-	8	-	Filling out the Laboratory and Packaging Logbook Registration of recipes in the Recipe Logbook	Solving situational problems using the case method	
	Final lesson 3.1-3.4	-	4	-			Solving situational problems on practical skills with grading* Oral credits
<b>6 semester</b>							
	<b>Lectures</b>	<b>9</b>	<b>-</b>	<b>6</b>			
4.1.	Government procurement of medicines and medical devices. Purchasing policy of a pharmacy organization	1,5	-	1,5			Tests
4.2.	Order of purchase, storage, sale of narcotic drugs and psychotropic substances in pharmacy and pharmacy warehouse	1,5	-	-			
4.3.	The procedure for importing medicines, medical devices and other pharmaceutical products into the Republic of Belarus. Harmonization of regulatory legal support for the circulation of medicines in the Eurasian Economic Union	1,5	-	1,5			Tests
4.4.	Organization of the operation of pharmacy warehouses in accordance with the rules of the Good Distribution Practice of the EAEU	1,5	-	-			
4.5.	Pharmaceutical logistics. Procedure and conditions for transportation of medicines, medical devices and other pharmaceutical products	1,5	-	-			
4.7.	Organization of work of the control and analytical (testing) laboratory	-	-	1,5			Control work
4.8.	Information and advertising activities in pharmacy	1,5	-	-			

4.9.	Organization of pharmacy abroad	-	-	1,5			Abstract
	<b>Laboratory lessons</b>	-	<b>51</b>	-			
3.5.	Fundamentals of pharmacoconomics. Organization of drug provision for patients receiving medical care in inpatient settings. Organization of work of a hospital pharmacy	-	3	-			frontal surveys
3.6.	Medicine provision for rural population. Organization of work of the central district pharmacy	-	3	-			frontal surveys
4.1.	Government procurement of medicines and medical devices. Purchasing policy of a pharmacy organization	-	3	-			control survey
4.2.	Order of purchase, storage, sale of narcotic drugs and psychotropic substances in pharmacy and pharmacy warehouse	-	3	-			control survey
	Final lesson 3.5-4.2	-	3	-			colloquium*
4.3.	The procedure for importing medicines, medical devices and other pharmaceutical products into the Republic of Belarus. Harmonization of regulatory legal support for the circulation of medicines in the Eurasian Economic Union	-	6	-			frontal surveys, electronic tests
4.4.	Organization of the operation of pharmacy warehouses in accordance with the rules of the Good Distribution Practice of the EAEU	-	3	-			frontal surveys, electronic tests
4.5.	Pharmaceutical logistics. Procedure and conditions for transportation of medicines, medical devices and other pharmaceutical products	-	3	-			frontal surveys, electronic tests
4.6.	Organization of self-inspection in a pharmacy and pharmaceutical warehouse	-	3	-	Carrying out self-inspection using a checklist	Solving situational problems based on a simulation and certification pharmacy	frontal surveys, solving situational problems
	Final lesson 4.3-4.6	-	3	-			colloquium*
4.7.	Organization of work of the control and analytical (testing) laboratory	-	3	-			frontal surveys
4.8.	Information and advertising activities in pharmacy	-	3	-			frontal surveys
4.9.	Organization of pharmacy abroad	-	3	-			Abstracts,

							frontal surveys
4.10	International cooperation in healthcare and pharmacy. Pharmaceutical public associations	-	3	-			Abstracts, frontal surveys
	Final lesson 4.7-4.10	-	3	-			colloquium*
	Practical skills		3				Solving situational problems on practical skills with grading* Examinations*
<b>7 semester</b>							
	<b>Lectures</b>	<b>9</b>	<b>-</b>	<b>3</b>			
5.1	General characteristics of business accounting. Organization of accounting	1,5	-	-			
5.3	Accounting for the consumption of inventory items in a pharmacy	1,5	-	1,5			Tests
5.7	Accounting reports of the pharmacy organization. The basics of accounting balance	1,5	-	-			
5.8	Accounting of work and salary. Remuneration of work in pharmaceutical organizations	1,5	-	1,5			Tests
5.10	State control (supervision) and audit in pharmacy organizations	1,5	-	-			
5.13	Inventory of assets and liabilities in a pharmacy	1,5	-	-			
	<b>Laboratory lessons</b>	<b>-</b>	<b>68</b>	<b>-</b>			
5.1	General characteristics of business accounting. Organization of accounting	-	4	-			frontal surveys electronic tests
5.2	Accounting for receipt of inventory items in a pharmacy	-	4	-			frontal surveys electronic tests
5.3	Accounting for the consumption of inventory items in a pharmacy	-	4	-	Calculation and registration of natural loss	Solving situational problems with grading	frontal surveys electronic tests
5.4	Accounting for fixed assets in a pharmacy. Accounting for inventory in a pharmacy	-	4	-	Registration of internal movement of main funds between departments	performing practical work with assessment	frontal surveys electronic tests

	Final lesson 5.1-5.4	-	4	-			colloquium*
5.5	Accounting for funds in a pharmacy	-	4	-	Filling out a cash book at a pharmacy Filling out the cashier's book at the pharmacy based on the Z report Documentation of cash collection funds	Filling out cash documents based on situational tasks with grading, performing practical work with assessment	frontal surveys electronic tests
5.6	Accounting in the pharmacy forms and documents with a degree of protection	-	4	-	Preparation of the transmittal sheet Filling out the log of acceptance results control	Filling out cash documents based on situational tasks with grading	frontal surveys electronic tests
5.7	Accounting reports of the pharmacy organization. The basics of accounting balance	-	4	-	Registration of fixed assets for accounting, received at the pharmacy	performing practical work with assessment	frontal surveys electronic tests
5.8	Accounting of work and salary. Remuneration of work in pharmaceutical organizations	-	4	-			frontal surveys electronic tests
5.9	Deductions from salary. Payment of leave and benefits	-	4	-	Calculation of wages and vacation pay for employees pharmacies	Solving situational problems with grading	frontal surveys electronic tests
	Final lesson 5.5-5.9	-	4	-			Solving situational problems on practical skills with grading*
5.10	State control (supervision) and audit in pharmacy organizations	-	4	-			interviews
5.11	Pharmaceutical inspection	-	4	-			interviews
5.12	Taxation of pharmacy organizations	-	4	-			interviews
5.13	Inventory of assets and liabilities in a pharmacy	-	4	-	Registration of inventory results in a pharmacy	performing practical work with assessment	frontal surveys
5.14	Subject-quantitative accounting in the pharmacy	-	4	-			frontal surveys
	Final lesson 5.10-5.14	-	4	-			colloquium*, oral

							credit
<b>8 semester</b>							
	<b>Lectures</b>	<b>9</b>	<b>-</b>	<b>3</b>			
6.1	Fundamentals of economic analysis	1,5	-	-			
6.5	Analysis and planning of work and salary indicators	1,5	-	1,5			Tests
6.7	Assortment and pricing policy of the pharmacy organization. Determining the need for medicines, medical devices and pharmaceutical products	1,5	-	-			
7.1	Staffing of a pharmacy organization	1,5	-	-			
7.3	Labor discipline. Disciplinary responsibility of employees	1,5	-	-			
7.4	Protection of consumer rights in the sphere of circulation of medicines, medical devices and other pharmaceutical products	1,5	-	1,5			Tests
	<b>Laboratory lesson</b>	<b>-</b>	<b>48</b>	<b>-</b>			
6.1	Fundamentals of economic analysis	-	3	-			frontal surveys electronic tests
6.2	Analysis and planning of pharmacy compounding	-	3	-			frontal surveys
6.3	Analysis and planning of pharmacy turnover	-	3	-	Planning of economic indicators pharmacy activities (turnover, profit, recipes, profitability, turnover, costs appeals)	Solving situational problems with grading	frontal surveys
6.4	Analysis and rationing of inventory in the pharmacy and pharmacy warehouse	-	3	-			frontal surveys
6.5	Analysis and planning of work and salary indicators	-	3	-			frontal surveys
6.6	Analysis and planning of sales costs, profits and profitability of pharmacies	-	3	-			frontal surveys
6.7	Assortment and pricing policy of the pharmacy organization. Determining the need for medicines, medical devices and pharmaceutical products	-	3	-	Formation of prices for medicines and medical products	Solving situational problems with grading	control survey
6.8	Financial management in pharmacy. Development of a business plan for the development of a pharmacy	-	3	-			control survey

	organization						
	Final lesson 6.1-6.8	-	3	-			colloquium*
7.1	Staffing of a pharmacy organization	-	3	-			frontal surveys
7.2	Regulation of work relations in pharmacy organizations	-	3	-	Filling out a work book, procedure for completing an autobiography	performing practical work with assessment	interviews
7.3	Labor discipline. Disciplinary responsibility of employees	-	3	-			interviews
7.4	Protection of consumer rights in the sphere of circulation of medicines, medical devices and other pharmaceutical products	-	3	-	Registration of a warranty card upon sale medical equipment	Solving situational problems on the basis of a simulation pharmacy with grading	interviews
7.5	Organization of the pharmacy with appeals of citizens. Information technology and automation in the activities of pharmaceutical organizations	-	3	-	Algorithm of actions upon receipt of an appeal to book of comments and suggestions	Solving situational problems on the basis of a simulation pharmacy with grading	frontal surveys
	Final lesson 7.1-7.5	-	3	-			colloquium*
	Practical skills	-	3	-			Course work Solving situational problems on practical skills with grading*
		<b>45</b>	<b>18</b>	<b>235</b>			Examination

\*This is a mandatory form of current certification

## INFORMATION AND INSTRUCTIONAL UNIT

### LITERATURE

**Basic:**

1. The pharmaceutical industry and global health / IFPMA – Switzerland. – 2022. – p. 101

**Additional:**

2. Pharmaceutical marketing and management : educational-methodical manual / V. V. Malyi, I. V. Pestun, I. V. Sofronova, et al. – Kh. : NUPh, 2020. – 276 p.

**Normative regulatory acts:**

3. Law of the Republic of Belarus «About the health care».

4. Law of the Republic of Belarus N 161-3 dated July 20, 2006 «On medicine circulation».

5. Guidelines on good pharmacovigilance practices (GVP), EMA/659929/2019, p. 1-7.

6. Guidelines for the import and export of drug and precursor reference standards for use by national drug testing laboratories and competent national authorities.

7. WHO good distribution practices for pharmaceutical products.

8. International standard ISO/IEC 17025.

9. FIP/WHO guidelines on good pharmacy practice: standards for quality of pharmacy services.

### METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE

The time allocated for independent work can be used by students to:

work with regulatory legal acts of the Republic of Belarus;

preparation for lectures and laboratory classes;

working with lecture notes;

repeated work on educational material;

drawing up a plan and abstract of answers;

compiling tables to systematize educational material;

independent preparation of tests on the material being studied;

preparation of thematic reports, abstracts, presentations;

problem solving;

performing creative tasks;

taking notes of educational literature;

design of information materials (stands, posters);

compiling a thematic selection of Internet sources;

preparation for colloquiums and tests;

preparation for tests and exams in the academic discipline.

## **METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF SUPERVISED STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE**

The main forms of organizing supervised student independent work:  
 writing and presentation of an abstract;  
 giving a report;  
 studying topics and problems that are not covered in lectures;  
 computer testing;  
 compiling tests for students to organize mutual control;  
 production of didactic materials;  
 and others.

Control of supervised student independent work is carried out in the form of:  
 test work;  
 control work.

### **LIST OF AVAILABLE DIAGNOSTIC TOOLS**

The following forms are used for competences assessment:  
 frontal surveys;  
 interviews;  
 control survey;  
 colloquiums;  
 abstracts;  
 course work;  
 solving situational problems;  
 solving situational problems on practical skills with grading;  
 electronic tests.

### **LIST OF AVAILABLE TEACHING METHODS**

Active (interactive) methods:  
 training based on simulation technologies;  
 Problem-Based Learning (PBL);  
 Team-Based Learning (TBL).

### **LIST OF PRACTICAL SKILLS**

List of practical skills	Practical skills control form
1. Conduct pharmaceutical examination and taxation of prescription forms	Solving situational problems using case method, performing practical work with assessment
2. Conduct pharmaceutical examination and taxation of prescription forms for preferential leave	
3. Registration of recipes in the Recipe Logbook	
4. Registration of recipes in the Logbook of incorrect prescriptions issued	



5. Filling out the Laboratory and Packaging Logbook	
6. Filling out the act of destroying doctor's prescriptions	
7. Completing the Breeding Logbook disinfection solutions	
8. Filling out the Measuring Instruments Logbook	
9. Filling out a cash book at a pharmacy	Filling out cash registers documents based situational tasks
10. Registration of incoming and outgoing cash orders	
11. Filling out the cashier's book at the pharmacy based on the Z report	
12. Preparation of the transmittal sheet	
13. Filling out the log of acceptance results control	
14. Documentation of cash collection funds	
15. Registration of fixed assets for accounting, received at the pharmacy	Solving situational problems
16. Registration of internal movement of main funds between departments	
17. Registration of inventory results in a pharmacy	
18. Calculation and registration of natural loss	
19. Formation of prices for medicines and medical products	
20. Calculation of wages and vacation pay for employees pharmacies	
21. Planning of economic indicators pharmacy activities (turnover, profit, recipes, profitability, turnover, costs appeals)	
22. Filling out a work book	
23. Algorithm of actions upon receipt of an appeal to book of comments and suggestions	Performing practical work
24. The procedure for preparing labor protection documentation	
25. Registration of a warranty card upon sale medical equipment	
26. Procedure for completing an autobiography	

### LIST OF EQUIPMENT USED

Document camera for office work in pharmacies and pharmaceutical organizations, cash register, scanner, marking gun, display cases for a simulation and certification pharmacy, interactive board, samples of doctor's prescription forms, journals and other documentation of pharmacy and pharmaceutical organizations: a

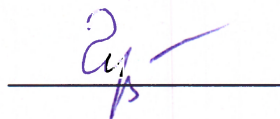
logbook of incorrectly written prescriptions, a prescription logbook, a logbook of laboratory and packaging work, a cashier's book, a cash book, a forwarding sheet, an outgoing/receipt cash order, etc., situational tasks test tasks, furniture for storing goods of a simulation and certification pharmacy.

**PROTOCOL OF THE CURRICULUM APPROVAL  
BY DEPARTMENTS**

Title of the discipline requiring approval	Department	Amendments to the curriculum in the academic discipline	Decision of the department, which designed the curriculum (date, protocol # )
1. Management of Pharmacy	Organization and Economics of Pharmacy	No	# 13 of 14.06.2024
2. Medical and Pharmaceutical Merchandising	Organization and Economics of Pharmacy	No	# 13 of 14.06.2024

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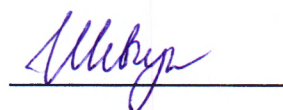
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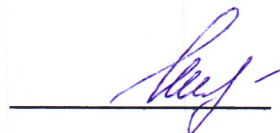
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K.Y.Shalova

Curriculum content, composition and the accompanying documents comply with the established requirements.

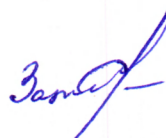
Dean of the Medical Faculty for  
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24.06.2024