

MINISTRY OF HEALTH OF UKRAINE

ODESA NATIONAL MEDICAL UNIVERSITY

Department of *Organization and Economics of Pharmacy with post diploma specialization*

APPROVED
Vice-rector for scientific and pedagogical work
Eduard BERYACHKIVSKY
September 1st, 2024



**WORKING PROGRAM IN THE DISCIPLINE
«ORGANIZATION AND ECONOMICS OF PHARMACY»**

Level of higher education: second (master's degree)

Field of knowledge: 22 «Health care»

Specialty: 226 "Pharmacy, industrial pharmacy"

Educational and professional program: Pharmacy, industrial pharmacy

The working program is compiled on the basis of the educational and professional program "Pharmacy, industrial pharmacy" for the training of specialists of the second (master's) level of higher education in the specialty 226 "Pharmacy, industrial pharmacy" of the field of knowledge 22 "Health care", approved by the Academic Council of ONMedU (minutes #10 dated 27/06/2024).

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The working program is approved at the meeting of the department of Organization and Economics of Pharmacy with post diploma specialization
 Minutes №. 1 dated 29/08/2024.

Head of the department



Oksana BIELIAIEVA

Approved by the guarantor of
 the educational and professional program



Liana UNHURIAN

Approved by the subject-cycle methodological commission for pharmacy's disciplines of ONMedU
 Minutes №. 1 dated 30/08/2024

Head of the subject-cycle methodological commission for pharmacy's disciplines of ONMedU



Natalia FIZOR

Revised and approved at the meeting of the department of Organization and Economics of Pharmacy

Minutes №. __ dated __/__/20__.

Head of the department

Revised and approved at the meeting of the department of Organization and Economics of Pharmacy

Minutes №. __ dated __/__/20__.

Head of the department

1. Description of the discipline:

Name of indicators	Field of knowledge, specialty, specialization, level of higher education	Characteristics of the discipline
Total number: Credits of ECTS: 7 Hours: 210 Content modules: 3	Field of knowledge 22 «Health care» Specialty 226 "Pharmacy, industrial pharmacy" higher education second (master's degree)	<i>Full-time (day) education Compulsory discipline</i> <hr/> <i>Course: 4</i> <hr/> <i>Semester: VII- VIII</i> <hr/> <i>Lectures (40 hours)</i> <hr/> <i>Seminars (0 hours)</i> <hr/> <i>Practical classes (100 hours)</i> <hr/> <i>Laboratories (0 hours)</i> <hr/> <i>Independent work (70 hours)</i> <hr/> <i>Form of final control – Exam</i>

The Purpose and Objectives of the Discipline, Competencies, and Program Learning Outcomes.

The purpose is to master the knowledge and to form the elements of the professional competencies and practical skills in Organization and Economics of Pharmacy on the basis if the specialized modern scientific achievements in Pharmacy.

The tasks of the discipline are the following:

1. To master of skills necessary to interpret, prepare, label, and maintain records of physicians' medication orders and prescriptions.
2. To train in the administration of supply, inventory, and data entry of stocks.
3. To gain thorough knowledge of the drug selection, features customer service and advisement with the over-the-counter drugs
4. To train in the calculation of the price of compounded drugs
5. To master of skills necessary to pricing, labelling, record keeping, stock level adjustment, maintenance of new drug requests, data input and editing, and legal parameters.
6. To master of skills necessary to interpret, prepare, label, and maintain records of physicians' medication orders and prescriptions.

The process of studying the discipline is aimed at forming elements of following competencies:

General (GC):

- GC02. Knowledge and understanding of the subject area and understanding of professional activity.
- GC06. Ability to work in a team.
- GC09. Ability to use information and communication technologies.
- GC11. Ability to apply knowledge in practical situations.
- GC17. Ability to make decisions and act in accordance with the principle of inadmissibility of corruption and any other manifestations of dishonesty

- Special (SC):

SC 1. Ability to integrate knowledge and solve complex pharmacy problems in broad or multidisciplinary contexts.

SC 4. The ability to clearly and unambiguously convey one's own knowledge, conclusions and arguments in the field of pharmacy to specialists and non-specialists, in particular to people who are studying.

SC 8. The ability to consult on prescription and non-prescription drugs and other products of the

pharmacy assortment; pharmaceutical care during the selection and sale of medicinal products of natural and synthetic origin by assessing the risk/benefit ratio, compatibility, taking into account biopharmaceutical, pharmacokinetic, pharmacodynamic and physicochemical and chemical features, indications/contraindications for use guided by data on the health status of a specific the patient

SC 13. The ability to organize the activities of the pharmacy to provide the population, health care institutions with medicines and other products of the pharmacy assortment and to implement appropriate reporting and accounting systems in them, to carry out commodity analysis, administrative record keeping taking into account the requirements of pharmaceutical legislation.

SC 14. The ability to analyze and forecast the main economic indicators of the activity of pharmacies, to calculate the main taxes and fees, to form prices for medicines and other products of the pharmacy assortment in accordance with the current legislation of Ukraine.

SC 24. Ability to use knowledge of regulatory and legislative acts of Ukraine and recommendations of proper pharmaceutical practices in professional activities.

Program learning outcomes (PLO) are:

PLO 3. To have specialized knowledge and skills/skills for solving professional problems and tasks, including for the purpose of further development of knowledge and procedures in the field of pharmacy.

PLO 5 Assess and ensure the quality and efficiency of activities in the field of pharmacy.

PLO 9. Formulate, argue, clearly and concretely convey to specialists and non-specialists,

including those seeking higher education, information based on one's own knowledge and professional experience, the main trends in the development of world pharmacy and related industries

PLO 11. Determine the advantages and disadvantages of drugs of natural and synthetic origin of various pharmacological groups, taking into account their chemical, physicochemical, biopharmaceutical, pharmacokinetic, pharmacodynamic features and the type of dosage form. Recommend to consumers medicinal products and other products of the pharmacy assortment with the provision of advisory assistance and pharmaceutical care.

PLO 16. Implement appropriate organizational and management measures to provide the population and health care institutions with medicines and other products of the pharmacy assortment; carry out all types of reporting and accounting in pharmacy institutions, administrative record- keeping and commodity analysis.

PLO 17. Calculate the main economic indicators of pharmacy establishments, as well as taxes and fees. Form all types of prices (wholesale, purchase and retail) for medicinal products and other products of the pharmacy assortment.

PLO 18. To use data from the analysis of socio-economic processes in society for the pharmaceutical supply of the population, to determine the effectiveness and availability of pharmaceutical care in terms of medical insurance and reimbursement of the cost of medicines.

PLO 29. To carry out professional activities using information technologies, "Information databases", navigation systems, Internet resources, software and other information and communication technologies.

PLO 30. Adhere to the norms of communication in professional interaction with colleagues, management, consumers, work effectively in a team.

PLO 36. Plan and implement professional activities on the basis of normative legal acts of Ukraine and recommendations of proper pharmaceutical practices

As a result of studying the academic discipline, the student of higher education must: Know:

- principles of the organization of pharmaceutical provision of the population in accordance with the requirements of Good Pharmacy Practice;
- requirements of international standards of pharmaceutical activity;
- legal acts regulating pharmaceutical activity;
- basic principles and provisions of the National Drug Policy;
- basic principles of state regulation of pharmaceutical activity;
- tasks and functions of pharmacies and their structural subdivisions;

- peculiarities of licensing activities in the retail trade of pharmaceuticals;
- the procedure for over-the-counter dispensing of drugs in Ukraine and abroad;
- the procedure for dispensing prescription drugs in Ukraine;
- rules for writing out prescriptions for drugs;
- the procedure for dispensing pharmaceuticals from pharmacies and their structural subdivisions;
- requirements for storage, accounting and destruction of prescription forms;
- features of drug dispensing free of charge and partly-charge;
- legislative and regulatory framework regulating the turnover of controlled drugs;
- classification of narcotic drugs, psychotropic substances and precursors;
- licensing terms to carrying out economic activities related to the turnover of narcotic (psychotropic) drugs, precursors;
- peculiarities of obtaining drugs and medical products from the pharmacy warehouse;
- managing with pharmacy stocks
- principles of compounding medicines in a pharmacy;
- procedure of receipt, accounting and storage of narcotic (psychotropic) drugs, precursors;
- structure of the state drug quality assurance system;
- responsibilities of the authorized person of the pharmacy;
- the procedure for conducting incoming inspection of obtained medicines;
- the procedure for internal pharmacy quality control of extemporaneous drugs;
- accounting and reporting system in pharmacies;
- classification of the pharmacy's assets;
- peculiarities of accounting of economic transactions in the system of accounting accounts;
- principles of accounting for fixed assets and intangible assets of pharmacies;
- modern information technologies and automated management and accounting systems;
- the procedure of the stocktaking of inventory;
- basic documentation of the monetary funds in pharmacies, responsibilities and duties of the pharmacy cashier;
- procedure for carrying out financial settlements with consumers;
- procedure for calculating wages to different categories of employees of pharmacies;
- forms of financial reporting, their structure and purpose;
- procedure for drawing up management, accounting and financial reporting;
- main economic indicators of pharmacy activity;
- meaning, structure and calculation of turnover, profit, profitability, etc.
- economic indicators;
- mechanisms of state regulation of pharmaceutical activity;
- basic principles of taxation of economic activity of pharmacy institutions;
- classification, calculation various types of taxes and fees;
- basic principles of lending to pharmacies
- general principles of audit activity

Be able to:

- to dispense over-the-counter medicines, provide advice on rational use and good storage of medicines;
- to apply Pharmacist Protocols when dispensing pharmaceuticals from pharmacies and their structural subdivisions;
- to accept prescriptions from the population, analyze the correctness of its registration;

- to dispense medicines according to doctors' prescriptions;
- to carry out charging of various medical prescriptions, determine tariffs for the manufacture of extemporaneous drugs;
- to keep records of controlled drugs in pharmacies;
- to receipt stocks from suppliers;
- to conduct incoming quality inspection of medicines that have obtained at the pharmacy;
- to organize good storage of drugs and pharmacy commodities;
- to calculate retail prices for drugs and medical products;
- to issue commodities to other departments and structural subdivisions of the pharmacy;
- to draw up documents in receipt of pharmacy commodities;
- to plan the number of employees of the pharmacy; draw up the staff schedule of the pharmacy;
- to calculate, analyze and plan the economic indicators of a pharmacy;
- to draw up documentation for accounting of working hours of employees of a pharmacy;
- to calculate various types of salary for employees of a pharmacy;
- to calculate various types of deductions from the wages of pharmacy employees;
- to apply a cashier register in settlements with consumers;
- to draw up documents from cash flow records;
- to analyze a data of primary accounting documents;
- to organize the physical stocktaking of a pharmacy and document its results;
- to analyze and plan a turnover of a pharmacy;
- to calculate the profit and profitability of a pharmacy;
- to plan the main economic indicators of pharmacies;
- to analyze the financial stage of a pharmacy based on the financial statements;
- to use the data of various forms of financial statements to make management decisions regarding the optimization of the pharmacy's economic activity.

3. The content of the Discipline

Content module 1.

Organization of Pharmaceutical Provision for Population

Topic 1: Basic principles of organization of pharmaceutical provision for population. National drug policy.

Socio-economic importance of pharmaceutical activity. The concepts of “pharmaceutical supply”, “pharmaceutical care”, “pharmaceutical service”. International organizations that regulate pharmaceutical activities at the macroeconomic level. The concept of a set of good practices as international standards governing pharmaceutical activities. Good pharmacy practice: definition, requirements, roles, functions and activities of pharmacists. National Drug Policy (NDP): main goals and priorities. Tasks, basic principles of creation, procedure for implementation of the NMP in Ukraine and other countries of the world. Organizational structure of the pharmaceutical industry and its state regulation in Ukraine, levels of management. Legislative and regulatory framework governing pharmaceutical activities in Ukraine. The procedure for licensing pharmaceutical activities in Ukraine. The procedure for licensing pharmaceutical activities in the European Union (EU) and other countries of the world. EU requirements and norms for pharmaceutical activities.

Topic 2. Information support of enterprises and organizations of the pharmaceutical industry

Pharmaceutical information system. Types of information (planned, accounting, reporting, statistical, regulatory and reference). Modern forms of information support of pharmacies and patients

(databases, automated search systems, specialized Internet sites, etc.) Levels of information (professional, consumer). Sources and forms of pharmaceutical information transfer. Classification of medicines in the world pharmaceutical practice. The essence of the anatomical-therapeutic-chemical (ATC) classification system. State Register of Medicines, structure, scope of application. State Formulary of Medicinal Products, structure, scope of application. National List of Essential Medicines, structure, scope of application.

Topic 3: Pharmacies as health care facilities in accordance with the requirements of Good Pharmacy Practice (GPP)

The concept of pharmacy institutions and pharmacy chains. Basic principles of development and location of pharmacy network. Pharmacy as a health care facility and as a business entity. Organization of work of pharmacies of various forms of ownership and management in modern market conditions. The main tasks and functions of the pharmacy. Classification of pharmacies. Specialization of pharmacies. Organizational structure of the pharmacy and its structural units. Premises, equipment and facilities of the pharmacy. Requirements of the sanitary regime of pharmacies. The staff of the pharmacy. Qualification requirements for personnel involved in the production (in a pharmacy) and retail sale of medicines. Financial responsibility of employees of a pharmacy, its types and documentation.

Topic 4. Organization of non-prescription dispensing (over-the-counter sale) of medicinal products from pharmacies and their structural subdivisions

Procedure for organizing the over-the-counter (OTC) sale of medicines in Ukraine, EU countries and other countries of the world. Criteria for determining the categories of medicinal products. OTC drugs, general characteristics, procedure for their release from pharmacies. The concept of responsible self-medication. Organization of pharmaceutical care. Pharmacist's protocols for the dispensing of medicines from pharmacies and their structural units.

Topic 5. Organization of prescription dispensing from pharmacies and their structural units

The procedure of prescription dispensing of medicines in Ukraine, in the EU and other countries of the world. Criteria for determining the categories of release. Prescription - definition, types, functions. Forms of prescription forms. General rules for prescriptions, the procedure for filling out prescription forms. Procedure for dispensing prescription medicines from pharmacies and their structural subdivisions. Standards for the dispensing of prescription medicines. Registration of the dispensing of medicines by electronic prescription. Peculiarities of dispensing narcotic, psychotropic medicines and precursors. Groups of outpatients and categories of the population guaranteed preferential, co-payment or free supply of medicines. Peculiarities of issuing preferential, co-payment or free prescriptions. Peculiarities of issuing an electronic prescription. Validity and storage of prescriptions in the pharmacy. Peculiarities of writing prescriptions for medicinal products subject to reimbursement

Topic 6. Rules for determining the cost (pricing) of extemporaneous medicines

Individual compounding of medicinal products in a pharmacy. Rules of production (compounding) of medicines in pharmacies. General requirements for the production (compounding) of medicinal products in pharmacies. Requirements to the premises and equipment of pharmacies for the compounding (manufacturing) of medicinal products. Requirements for employees of pharmacies with production (manufacturing) of medicinal products. Labeling of extemporaneous medicinal products. Rules for establishing the cost of extemporaneous medicinal products. Tariff for the manufacture of medicines as a historical and socio-economic category. Meaning of *Taxa laborum*, definition and structure. Methodology for determining tariffs for the manufacture of various dosage forms. Accounting of tariffs for the manufacture and packaging of medicines and pharmaceutical products. Rules for charging the cost of various medicinal prescriptions (solutions, powders, suppositories, infusions and decoctions, ointments, liquid dosage forms, etc.) Accounting for prescriptions for individually manufactured medicines.

Topic 7. Organization of batch preparation of extemporaneous drugs in pharmacies.

Batch manufacturing of medicinal products in a pharmacy. General requirements for the production (manufacture) of medicinal products by order (request) of a health care facility, intra-pharmacy preparations and for stock according to frequently repeated prescriptions. Rules for establishing the cost

and accounting of medicinal products manufactured by order (request) of a health care facility, in-pharmacy preparations and for stock according to frequently repeated prescriptions.

Topic 8: Procedure for accounting for medicines containing controlled substances in pharmacies

Classification of narcotic drugs, psychotropic substances and precursors. State regulation of the turnover of narcotic drugs, psychotropic substances and precursors. Procedure for licensing economic activities related to the turnover of narcotic drugs, psychotropic substances and precursors and special prescription forms of form No. 3. Requirements for storage facilities for narcotic (psychotropic) drugs and special prescription forms. Peculiarities of transportation of narcotic drugs, psychotropic substances and precursors. Organization of turnover of narcotic (psychotropic) drugs in pharmacies. Rules for dispensing narcotic (psychotropic) drugs to outpatients. Peculiarities of storage, accounting and destruction of special prescription forms No. 3. Liability for violation of the established rules of turnover of narcotic drugs, psychotropic substances and precursors. The list of medicines subject to controlled accounting in pharmacies, the procedure for their accounting.

Topic 9: Organization of the quality assurance system for medicinal products

Quality assurance of medicines as an international problem. Legislative framework, organizational structure, management levels of the state quality assurance system in Ukraine. Certification of pharmacies according to international standards. The procedure for registration of medicines. State quality control of medicinal products during retail trade. Organization of incoming quality inspection of medicinal products in pharmacies. Rights and obligations of the authorized person of a pharmacy, qualification requirements. Procedure for taking samples of medicinal products for laboratory analysis. Documentation of withdrawal of medicinal products from turnover. Procedure for accounting for orders of the State Service of Ukraine on Medicines and Drugs Control on the prohibition of the sale and use of medicines.

Organization of intra-pharmacy quality control of medicinal products produced (manufactured) in a pharmacy, documentation of its results. State quality control of medicinal products manufactured in pharmacies.

Topic 10. Inventory management process in pharmacies

Inventory within the structure of the economic resources of pharmacy establishments. Characteristics and classification of inventory in pharmacies. Determining needs and documentation for orders. Organization of pharmacy work with suppliers of medicinal products and pharmaceutical goods. Methods for determining optimal inventory levels. Organization of goods reception in pharmacies. Organization of storage for medicinal products and pharmaceutical goods in accordance with regulatory requirements. Good Storage Practice (GSP). Dispensing medicinal products and other goods to structural units of the pharmacy, healthcare facilities, and other institutions. Basic principles of pricing of medicines.

Topic 11. Basic principles and methods of pricing medicines

Pricing of medicines as a national and international problem. The concept of cost and price of medicines. Types of prices, their functions. Price structure for industrialized medicines Mechanisms of state regulation of prices and tariffs. Analysis of economic mechanisms for increasing the availability of medicines for different segments of the population. Reference pricing. Monitoring of prices. Methods of calculating trade margins and retail prices for finished medicines and medical devices. Peculiarities of determining VAT on the sale of medicines and medical devices.

Content module 2.

Topic 12: Accounting and reporting system in pharmacies

Description of the legal and regulatory framework governing the organization of accounting and reporting in pharmacies. The importance of accounting and reporting at the macro- and microeconomic level. The purpose and objectives of accounting for economic activity. Users of accounting information. Types of accounting and reporting in pharmacies: management, accounting, financial, statistical, tax. Accounting measures. Document in the organization of accounting. Business transaction. Use of accounting data for analysis, planning and management decision-making in pharmacies. Automated

accounting systems in the activities of pharmacies. Characteristics of modern requirements for technical support of pharmacies in terms of automation. Electronic document. Organization of reporting in software automated systems

Topic 13. Accounting in pharmacies as an information system

The role of accounting in the management of pharmacies. Requirements for accounting. Regulations (standards) of accounting. Subject, object and methods of accounting. Structure of economic assets of pharmacies. Balance sheet, its structure and content. The relationship between the balance sheet and business operations. Accounting accounts - classification, structure. Double entry, its essence and significance. The relationship between accounts and balance sheet. Automation of accounting. Accounting system for managing pharmacies and pharmacy chains.

Topic 14: Accounting for inventory in pharmacies

Primary accounting of receipt of inventory in a pharmacy, document flow. The procedure for processing claims for the supply of goods and other inventory items from suppliers. Procedure for documenting other transactions that increase the balance of pharmacy goods. Retail turnover of a pharmacy. The procedure for documenting the disposal of inventory. Procedure for documenting other transactions that reduce the balance of pharmacy goods. Commodity report, structure, order of preparation, automation of the process. Commodity losses, classification. Revaluation of inventories, its types, documentation.

Topic 15: Accounting for fixed and intangible assets in pharmacies

Classification of fixed assets of an economic entity. Accounting for the receipt and movement of fixed assets of a pharmacy. Estimation of the value of fixed assets. Primary documents of management accounting of fixed assets. The concept of depreciation of fixed assets. Low-value and wearing items, their accounting. Intangible assets, their accounting.

Topic 16. Cash accounting in pharmacies

Cash and cash equivalents in the structure of working capital of pharmacies. Organization of cash flow. Cash transactions: classification, documentation. The procedure for keeping a cash book and the responsibilities of the cashier. Rules of settlements with consumers. Registrars of payment transactions. The procedure for registration and use of cash registers. Forms of settlement documents. The procedure for depositing cash proceeds to the bank. Setting the cash limit. Control over compliance with cash discipline. Inventory of the cash desk. Liability for violation of the procedure for settlements with consumers established by law. Organization of work with the bank. Types of bank accounts. Settlement and payment documents. Accounting for non-cash payments. Electronic money circulation.

Topic 17. Forms and systems of remuneration of pharmaceutical employees, payroll accounting in pharmacies.

Forms and systems of remuneration. Tariff system. Establishment of salaries and allowances for employees of pharmacies. Structure and characteristics of the payroll fund. Methods of planning the number of employees. The procedure for recording working hours and wages. Guarantee and compensation payments. Mandatory deductions from the payroll. Single social contribution, characteristics, calculation rules

Topic 18: Organization of stocktaking (inventory) in pharmacies

Stocktaking: tasks, types, timing. General procedure for stocktaking (inventory) in pharmacies. Procedure for stocktaking (inventorying) medicines and medical devices. Inventory of cash, settlement documents and strict reporting forms. Inventory of fixed assets, containers, intangible assets, and low-value and wearing items. Summarizing the results of the inventory and documenting them. Management decisions on material damage identified during the inventory. Automation of the inventory procedure in pharmacies.

Topic 19: Management reporting of pharmacies.

Management reporting (financial, internal economic, tax, statistical, non-financial, integrated). Concept, essence and users of management reporting. Qualitative characteristics and principles of management reporting. Formation and composition of management reporting on the financial structure of the enterprise, on the results of activities, on the movement of funds. Management reporting for decision-making on profit maximization and risk management of a pharmacy enterprise. Organization

and development of internal economic reporting at a pharmacy enterprise. Stages of formation of internal economic reporting at a pharmacy enterprise. Information map of internal economic reporting of a pharmacy enterprise. State Statistics Service of Ukraine, main tasks of activity. Forms of state statistical reporting. General table (list) of forms of state statistical observations, general characteristics. Economic statistics: forms, frequency and deadlines for reporting.

Content module 3. **Basic concepts of Economics in Pharmacy**

Topic 20: Fundamentals of pharmaceutical economics. Basic economic indicators of economic activity of pharmacies

The role and place of pharmaceutical economics in the system of scientific knowledge, its relationship with other branches of knowledge. Subject, objects, methods of research in pharmaceutical economics. The main economic indicators of economic activity of pharmacies. Characteristics and socio-economic significance of turnover. The concept of “standard of inventory”. Methods for calculating the standard of inventory. The concept of production and circulation costs as an economic category. Classification of costs by various criteria. Factors affecting the amount and level of costs. Costs taken into account in determining the cost of goods sold. Organization of a set of measures aimed at reducing the costs of pharmacies. Characteristics and economic calculations of trade overhead. Factors affecting the amount and level of trade overhead. Profit and profitability of pharmacies. Factors affecting the value of economic indicators.

Topic 21: Analysis of financial and economic activities of pharmacies

The essence and importance of economic analysis in modern conditions. Object, subject and methods of economic analysis. Sources of information used for economic analysis. Classification of methods of analysis (sectoral and intersectoral, prospective and retrospective, macroeconomic and microeconomic, external and internal, comprehensive and thematic). Methodology for analyzing financial and economic activities based on management reporting. System of indicators for analyzing financial and economic activities and financial condition of pharmaceutical companies. Stages of comprehensive analysis of economic activity.

Topic 22. Planning the activities of pharmacies (pharmaceutical companies)

Place and role of planning and forecasting in the management structure. Planning methodology: principles and methods of planning, targets, a set of measures necessary to implement the plan. Normative and balance sheet planning methods: main advantages and disadvantages. Financial planning of pharmacies. Budgeting in the activities of pharmacies. Methods of planning turnover. Economic importance of forming a rational policy of supplying goods in pharmacies. Methods of planning the receipt of goods. Models for predicting the bankruptcy of pharmacies.

Topic 23: Taxation in pharmacies

The tax system of Ukraine. Characteristics of taxes as a socio-economic category. Classification of taxes and fees (mandatory payments) according to various criteria. Elements of taxes (subject and object, tax source, tax rate). Taxation of legal entities and individual entrepreneurs. Procedure for taxation of profits of pharmacies (pharmaceutical companies). Personal income tax: tax base, tax rate. Characteristics of indirect taxes (value added tax, excise duty). Simplified system of taxation, accounting and reporting for small businesses. Tax benefits as an important mechanism of state regulation of the economy and social sphere. Organization of tax accounting and reporting. The procedure for submitting corporate income tax reports. The procedure for submitting reports related to the use of cash registers. Electronic tax reporting.

Topic 24. Financial and credit system in a market economy. Lending to pharmacies

Financial and credit system in a market economy. Economic feasibility of lending. Optimal capital structure of the enterprise. Discounting. Determination of the economic efficiency of investments. Basic principles of lending to pharmacies (pharmaceutical companies). Types of loans and their characteristics. Sources of financing of working capital. Use of securities (shares, bonds, bills) as borrowed funds.

Topic 25. Audit control: essence, purpose. Organization of the audit

The essence and subject of the audit. Principles of audit. Differences between audit and other forms of control. External and internal audit. Initiative and mandatory audit. Regulatory regulation of audit activities. International standards on auditing. Requirements for auditors and audit firms. Rights and obligations of audit subjects. Planning of the audit. Testing of the internal control system. Audit risk. Materiality and reliability criteria. The procedure for concluding an audit contract. Audit evidence, its classification and requirements. Working documentation of the auditor. Documentation of audit results. Consulting services of audit firms. Organizational features of the audit of operational, investment and financial activities of the enterprise. Practical application of audit results.

Topic 26: Analysis of the financial condition of the enterprise on the basis of financial statements.

Express analysis of the balance sheet. Comparative analytical balance sheet. Financial ratios. Assessment of the property status of the enterprise. Analysis of balance sheet liquidity. Analysis of solvency and financial stability of the enterprise. Analysis of business activity and profitability of pharmaceutical enterprises.

Topic 27: Pharmaceutical provision of the population in the context of health insurance

The health insurance system as a socio-economic guarantor of the provision of qualified medical and pharmaceutical care. The main types of models of functioning of the health care system and pharmaceutical provision of the population (budgetary and insurance, state, private). Analysis of the experience of functioning of health insurance elements in national healthcare and pharmaceutical systems. Mechanisms for reimbursement of medicines in the EU and the world. Peculiarities of pharmaceutical provision and reimbursement in the context of the introduction of compulsory health insurance in Ukraine. Insurance formulation as an important socio-economic indicator of pharmacy operation in the context of health insurance.

4. The structure of the Discipline

Topics	Number of hours					
	Total	including				
		lectures	seminars	practical classes	Laboratories	ISW
Content module 1. Organization of Pharmaceutical Provision for Population						
Topic 1: Basic principles of pharmaceutical provision for population. National drug policy.	10	2	-	4	-	4
Topic 2. Information support of enterprises and organizations of the pharmaceutical industry	10	2	-	4	-	4
Theme 3: Pharmacies as health care facilities in accordance with the requirements of Good Pharmacy Practice (GPP)	10	2	-	6	-	2
Topic 4. Organization of non-prescription dispensing (over-the-counter sale) of medicinal products from pharmacies and their structural subdivisions	12	2	-	6	-	4
Topic 5. Organization of prescription dispensing from pharmacies and their structural units	10	2	-	6	-	2

Topic 6. Rules for determining the cost (pricing) of extemporaneous medicines	10	2	-	6	-	2
Topic 7. Organization of batch preparation of extemporaneous drugs in pharmacies.	6	0	-	4	-	2
Control of practical skills №1 Current test control.	6	0	-	2	-	4
Topic 8: Procedure for accounting for medicines containing controlled substances in pharmacies	10	2	-	4	-	4
Topic 9: Organization of the quality assurance system for medicinal products	10	2	-	6	-	2
Topic 10. Inventory management process in pharmacies	10	2	-	6	-	2
Topic 11. Basic principles and methods of pricing medicines	8	2		4		2
Control of practical skills №2 Current test control.	8	0	-	2	-	6
<i>Total</i>	120	20	-	60	-	40
Content module 2.						
Accounting system in pharmacies						
Topic 12: Accounting and reporting system in pharmacies	4	-	-	0	-	4
Topic 13. Accounting in pharmacies as an information system	6	2	-	4	-	0
Topic 14: Accounting for inventory in pharmacies	6	2	-	4	-	0
Topic 15: Accounting for fixed and intangible assets in pharmacies	6	2	-	2	-	2
Topic 16. Cash accounting in pharmacies	10	4	-	4	-	2
Topic 17. Forms and systems of remuneration of pharmaceutical employees, payroll accounting in pharmacies.	8	2	-	6	-	0
Topic 18: Organization of stocktaking (inventory) in pharmacies	6	2	-	4	-	0
Topic 19: Management reporting of pharmacies.	2	-	-	0	-	2

Control of practical skills №3 Current test control.	4	-	-	2	-	2
<i>Total</i>	52	14	-	26	-	12
Content module 3. Basic concepts of Economics in Pharmacy						
Topic 20: Fundamentals of pharmaceutical economics. Basic economic indicators of economic activity of pharmacies	4	2	-	0	-	2
Topic 21: Analysis of financial and economic activities of pharmacies	4	-	-	2	-	2
Topic 22. Planning the activities of pharmacies (pharmaceutical companies)	2	-	-	0	-	2
Topic 23: Taxation in pharmacies	8	2	-	4	-	2
Topic 24. Financial and credit system in a market economy. Lending to pharmacies	4	-	-	2	-	2
Topic 25. Audit control: essence, purpose. Organization of the audit	6	2	-	2	-	2
Topic 26: Analysis of the financial condition of the enterprise on the basis of financial statements.	4	-	-	2	-	2
Topic 27: Pharmaceutical provision of the population in the context of health insurance	2	-	-	0	-	2
Control of practical skills №3 Current test control.	4	-	-	2	-	2
<i>Total</i>	38	6	-	14	-	18
<i>Total hours</i>	210	40	-	100	-	70

5. Topics of Lectures / Seminars / Practical classes / Laboratory Classes

5.1. Topics of lectures

No.	Topic	Hours
1	Topic 1: Lecture 1. Organizational structure and levels of management of the pharmaceutical industry in Ukraine. The procedure for licensing pharmaceutical activities in Ukraine.	2
2	Topic 2. Lecture 2. Sources and forms of pharmaceutical information. The essence of the anatomical-therapeutic-chemical (ATC) classification system. State Register of Medicines, State Formulary of Medicines, National List of Essential Medicines: structure, scope.	2
3	Topic 3. Lecture 3. The concept of Good Practices as international standards. Requirements of the GPP. Organizational structure of the pharmacy and its structural units. Premises, equipment of a pharmacy.	2
4	Topic 4. Lecture 4. Procedure for organizing the over-the-counter sale of medicines in Ukraine, EU countries and other countries of the world. Criteria for determining the categories of drugs. OTC drugs, general characteristics, procedure for their release from pharmacies.	2
5	Topic 5. Lecture 5. Procedure for organizing prescription drug dispensing in Ukraine, EU countries and other countries of the world. General rules for writing out prescriptions, the procedure for filling out prescription forms. Procedure for dispensing prescription drugs from pharmacies and their structural units.	2
6	Topic 6. Lecture session 6. General requirements for the compounding of medicinal products in pharmacies. Rules for establishing the cost of extemporaneous medicines. Methods for determining tariffs for the compounding of various dosage forms.	2
7	Topic 8: Lecture 7. State regulation of the turnover of narcotic drugs, psychotropic substances and precursors. The list of medicines subject to controlled accounting in pharmacies, the procedure for their accounting.	2
8	Topic 9: Lecture 8. Legal framework, organizational structure, management levels of the state system of quality assurance of medicinal products in Ukraine. State quality control of medicines in retail trade. Organization of incoming quality inspection of medicines in pharmacies.	2
9	Topic 10. Lecture 9. Inventory in the structure of economic assets of pharmacies, their characteristics and classification. Organization of receipt of medicines from the supplier: accompanying documents, formation of retail price, storage rules.	2
10	Topic 11. Lecture 10. Accounting as a background for financial analysis and management. Regulatory framework to the accounting and reporting in pharmacy institutions. Basic financial statements. Characteristic of a Balance sheet.	2
11	Topic 13. Lecture 11. Types of accounting and reporting in pharmacies. Accounting in pharmacies as an information system	2

12	Topic 14. Lecture 12. Retail turnover of a pharmacy. The procedure for documenting the receipt and disposal of inventory. Commodity losses, classification. Revaluation of inventories, its types, documentation.	2
13	Topic 15. Lecture 13. Fixed assets of a business entity in pharmacy: classification, accounting for receipt and movement, valuation. Intangible assets of pharmacies, their accounting.	2
14	Topic 16. Lecture 14. Cash and cash equivalents in the structure of current assets of pharmacies. Rules for cash and non-cash payments with consumers	2
15	Topic 16. Lecture 15. Organization of work of pharmacies with the bank. Types of bank accounts. Settlement and payment documents. Accounting for non-cash payments.	2
16	Topic 17. Lecture 16. Forms, systems of remuneration of pharmacy employees. The procedure for recording working hours and wages. Guarantee and compensation payments. Mandatory deductions and charges, calculation rules.	2
17	Topic 18. Lecture 17. General requirements for stocktaking in pharmacies. Analysis and management decisions on stocktaking results. Automation of the stocktaking procedure in pharmacies	2
18	Topic 20: Lecture 18. The main economic indicators of economic activity of pharmacies: classification, calculation methods, importance in the economic analysis of pharmacies.	2
19	Topic 23: Lecture 19: Organization of tax accounting and reporting in pharmacies. Types of taxation of business entities in the pharmaceutical industry. Characteristics of direct and indirect taxes.	2
20	Topic 25. Lecture 20. Audit control: essence, purpose. Organization of the audit	2
	Total	40

5.2. Topics of seminar classes

Seminar classes are not provided.

5.3. Topics of practical classes

No.	Topic	Hours
Content module 1		
1.	Topic 1: Practical class 1. Good pharmacy practice: definition, requirements, roles, functions and activities of pharmacists.	2
2.	Topic 1. Practical class 2. Licensing conditions for conducting business activities in the retail trade of medicines.	2
3.	Topic 3. Practical class 3. Organization of work of pharmacies. Organizational structure of the pharmacy and structural units.	2
4.	Topic 3. Practical class 4. Pharmacy staff. Qualification requirements for staff. Financial responsibility of employees of a pharmacy.	2
5.	Topic 4. Practical class 5. Procedure for organizing the over-the-counter dispensing of medicines in Ukraine	2

6.	Topic 4. Practical class 6. Pharmacist's protocols for the dispensing of medicines from pharmacies and their structural units.	
7.	Topic 5. Practical class 7. The procedure for the organization of prescription drugs dispensing. General rules for prescribing and the procedure for filling out prescription forms.	
8.	Topic 5. Practical class 8. Peculiarities of prescribing and dispensing medicines for certain categories of patients.	
9.	Topic 5. Practical class 9. Registration and dispensing of medicines by electronic prescription	2
10.	Topic 6. Practical class 10. Organizational requirements for the compounding (manufacturing) of extemporaneous medicinal products in pharmacies	2
11.	Topic 6. Practical class 11. Rules of pricing for individually compounded medicines. Registration of prescriptions.	2
12.	Topic 7. Practical class 12. Organizational requirements for batch preparation (manufacturing) of extemporaneous medicines in pharmacies.	2
13.	Topic 7. Practical class 13. Rules for the pricing of extemporaneous medicines of batch production in pharmacies.	2
14.	Practical class 14. Current test control. Control of practical skills №1	2
15.	Topic 8: Practical class 15. State regulation of the turnover of narcotic drugs, psychotropic substances and precursors.	2
16.	Topic 8: Practical class 16. The procedure for record keeping and dispensing of medicines containing controlled substances (poisonous, potent, etc.) in pharmacies	2
17.	Topic 9: Practical class 17. State quality control of medicinal products.	2
18.	Topic 9. Practical class 18. Organization of incoming inspection of medicines quality. Rights and responsibilities of the authorized person of the pharmacy.	2
19.	Topic 9. Practical class 19. Organization of intra-pharmacy quality control of extemporaneous medicines, recording of its results.	2
20.	Topic 10. Practical class 20. Determining the need and documenting orders for the supply of medicines to pharmacies	2
21.	Topic 10. Practical class 21 Acceptance and recording of medicines and medical devices in pharmacies and their structural units	2
22.	Topic 10. Practice class 22 Storage of inventories in pharmacies and their structural subdivisions	2
23.	Topic 10. Practical class 23. Distribution of medicines to structural units of the pharmacy, medical and preventive and other institutions.	2

24.	Topic 10. Practical class 24. Modern approaches to the managing and organizing pharmaceutical record keeping in a pharmacy, tracking drug stock, expired medicines, drug deliveries	2
25.	Topic 11. Practical class 25. Characteristics of pricing in pharmacy. The system of prices for medicines.	2
26.	Topic 11. Practical class 26. Legal and regulatory framework of state regulation of prices in Ukraine. The procedure for calculating the price of medicines	2
27.	Topic 11. Practical class 27. Composition and structure of the price of medicines. Taxation of medicines in Ukraine	2
28.	Topic 11. Practical class 28. Reference pricing for medicines	2
29.	Topic 11. Practical class 29. Monitoring of prices for medicines	2
30.	Practical class 30. Current test control. Control of practical skills №2	2
	Total	60
Content module 2		
31.	Topic 13. Practical class 31. Balance sheet as the main financial statement. Structure of economic assets, liabilities and equity capital of pharmacies.	2
32.	Topic 13. Practical class 32. The relationship between the balance sheet and business operations. Accounting accounts - classification, structure. Chart of Accounts	2
33.	Topic 14: Practical class 33. Inventory accounting of recording the receipt and disposal of goods in pharmacies based on primary documents.	2
34.	Topic 14: Practical class 34. Commodity report, structure, procedure of preparation, automation of the process. Revaluation of inventories, its types, documentation.	2
35.	Topic 15. Practical class 35. Fixed asset accounting. Recording an entity's financial transactions for its fixed assets. Assessment of their value and depreciation.	2
36.	Topic 16. Practical class 36. Organization of cash circulation in pharmacies. The procedure for registration and use of payment transaction registers.	2
37.	Topic 16. Practical class 37. Retail cash transactions: classification, documentation.	2
38.	Topic 16. Practical class 38. Accounting for non-cash payments of pharmacies. Settlement and payment documents. Electronic money circulation.	2
39.	Topic 17. Practical class 39. Forms, systems of remuneration of the pharmacy employees, structure and characteristics of the payroll.	2
40.	Topic 17. Practical class 40. The procedure for keeping records of working time. Planning the number of employees. Setting salaries and allowances for employees of pharmacies.	2
41.	Topic 17. Practical class 41. The procedure for calculating wages. Guarantee and compensation payments.	2
42.	Topic 17. Practice class 42. Mandatory deductions from the income of pharmaceutical employees. Single social contribution, characteristics, calculation rules.	2

43.	Topic 18: Practical class 43. General procedure for stocktaking of medicines and medical devices in pharmacies. Document flow	2
44.	Topic 18: Practical class 44. Verification and registration of inventory results. The procedure for determining the amount of damage.	2
45.	Practical class 45. Current test control. Control of practical skills №3	2
	Total	30
Content module 3		
46.	Topic 19: Practical class 46. Management reporting of a pharmacy institution. Qualitative characteristics and principles of formation.	2
47.	Topic 20. Practical class 47. Characteristics and economic calculations of turnover, trade markups, expenses of pharmacy institutions	2
48.	Topic 20. Practical class 48. Characteristics and economic calculations of profit and profitability of pharmacy institutions.	2
49.	Topic 23. Practical class 49. The procedure for taxation of legal entities and individual entrepreneurs in the pharmaceutical industry. Taxation of profits of pharmacies.	2
50.	Practical class 50. Final test control. Control of practical skills №4	2
	Total	10
	Total for modules I-III	100

5.4. Topics of laboratory classes

Laboratory classes are not provided.

6. Independent Student Work

No.	Topic name	Hours
1.	Topic 1: Preparation for practical classes 1 - 2	4
2.	Topic 2. Preparation of reports on problematic issues	4
3.	Topic 3. Preparation for practical classes 3-4	4
4.	Topic 4. Preparation for practical classes 5-6	4
5.	Topic 5. Preparation for practical classes 7-9	4
6.	Topic 7. Preparation for practical classes 10-13	4
7.	Practical lesson 14. Preparation for the current test and control of practical skills №1	4
8.	Topic 8: Preparation for practical classes 15-16	2
9.	Topic 9. Preparation for practical classes 17-19	2
10.	Topic 10. Preparation for practical classes 19-24	2
11.	Topic 11. Preparation for practical classes 25-29	2
12.	Preparation for the current test and control of practical skills №2	4
13.	Topic 13. Preparation for practical classes 31-32	2
14.	Topic 14: Preparation for practical classes 33-35	2
15.	Topic 15. Preparation for practical classes 36-38	2
16.	Practical lesson 45. Preparation for the current test and control of practical	4

	skills №3	
17.	Topic 19: Preparation for practical class 46	2
18.	Topic 20: Preparation for practical classes 47-48	2
19.	Topic 21. Preparation of reports on problematic issues	2
20.	Topic 23. Preparation for practical class 49	2
21.	Topics 24-27. Preparation of reports on problematic issues	2
22.	Practical class 50. Preparation for the current test control and control of practical skills №4	4
23.	Preparation for the Rector's control in the discipline	6
	Total	70

7. Teaching methods

Lectures: problem-based lectures, lectures-visualizations, narration, explanation, conversation, instruction, discussion, debate, discussion of problematic situations, situational learning, illustration (including multimedia presentations), demonstration, presentation of the results of own research.

Practical classes: conversation, role-playing games, solving situational problems, cases, solving calculation problems, practicing the skills of analyzing the pharmaceutical market, practicing the skills of calculating the market situation, practicing the skills of pricing drugs and medical products, training exercises on the design and development of various types of promotion of medicines and medical products.

Independent work: independent work with the recommended basic and additional literature, with electronic information resources, independent work with the bank of KROK-2 test tasks, independent mastering of communication algorithms with patients/visitors of pharmacy institutions.

Individual tasks: writing essays, reports, multimedia presentations, etc.

8. Forms of control and evaluation methods (including criteria for evaluating learning outcomes)

Current control: oral survey, testing (form or computer), control written works, evaluation of individual tasks, evaluation of calculation problem solving, evaluation of practical skills, evaluation of communication skills during role play, solution of situational/cases tasks, assessment of activity in class.

Final control: exam.

Assessment of the ongoing learning activity at the practical class:

1. Assessment of the theoretical knowledge on the theme:
 - methods: individual survey on the theme, participation of the students in the discussion of problem situations; assessment of performance of tests on the theme;
 - the maximum score – 5, the minimum score – 3, the unsatisfactory score – 2.
2. Assessment of practical skills on the theme:
 - methods: assessment of the solution of situational tasks (including calculation) on the theme;
 - the maximum score – 5, the minimum score – 3, the unsatisfactory score – 2.

Criteria of ongoing assessment at the practical class

Score	Assessment criterion
Excellent «5»	The applicant is fluent in the material, actively participates in the discussion and solution of situational/case problems, confidently demonstrates practical skills on the subject of the lesson, expresses his opinion on the subject of the lesson
Good «4»	The applicant has a good command of the material, participates in the discussion and solution of the situational/case problem, demonstrates certain practical skills on the subject of the lesson with some mistakes, expresses his opinion on the topic of the lesson.

Satisfactory «3»	The applicant does not have sufficient knowledge of the material, is unsure of participating in the discussion and solution of the situational/case problem, demonstrates practical skills on the topic of the lesson with significant errors.
Unsatisfactory «2»	The applicant does not have the material, does not participate in the discussion and solution of the situational/case problem, does not demonstrate practical skills on the subject of the lesson

The discipline is considered, if the student has completed all the tasks of the working program of the educational discipline. He/she took actively participated in the practical exercises, and completed an individual task. The student has an average current rating of at least 3.0 and has no academic deb; passed the test control of the "Krok-2" tests for at least 90% (50 tasks). The test control is held in the Educational and Production Complex of Innovative Technologies of Learning, Informatization and Continuous Education of ONMedU before the exam.

Assessment of students' learning outcomes during the final control - an orally standardized examination.

The methodology of the oral standardized examination is unified, transparent and involves the use of standardized forms. The number of questions submitted for the oral standardized examination corresponds to the number of credits allocated for the study of the discipline

The form of the examination paper is standardized and consists of structural elements (components). An examination paper may consist of only theoretical questions or with the addition of a situational task. Each question paper may contain from 3 to 5 questions. The questions are short, simple, clear, precise, and transparent, and are designed in such a way that a complete answer to them takes no more than 5 minutes. The timing of the oral structured exam is standard - no more than 30 minutes.

Each question is accompanied by a checklist (answer model), which includes the key points required to provide a complete answer to the question. Each answer template is accompanied by a reference source with pages.

During the oral structured examination, the applicant sees the question, the teacher sees the checklist with the standard answers and determines which components were or were not named by the applicant. The overall grade for the oral structured examination is calculated as the arithmetic mean of all grades received for answering the questions (including situational tasks).

A package of documents for the oral structured exam: a list of questions, answer templates (checklists), is reviewed by the subject cycle methodological commission

9. Distribution of points, obtained by the student

The obtained average score for the academic discipline for applicants who have successfully mastered the work program of the academic discipline is converted from a traditional four-point scale to points on a 200-point scale, as shown in the table:

Table of Converting the Traditional Grades into the Multi-Point Grading Scale

National Grade	200-Point Grading Scale
Excellent («5»)	185 – 200
Good («4»)	151 – 184
Satisfactory («3»)	120 – 150
Unsatisfactory («2»)	Less than 120

A multi-point scale (200-point scale) characterizes the actual success of each applicant in learning the educational component. The conversion of the traditional grade (average score for the academic discipline) into a 200-point grade is performed by the information and technical department of the University.

According to the obtained points on a 200-point scale, the achievements of the applicants are evaluated according to the ECTS rating scale. Further ranking according to the ECTS rating scale allows

you to evaluate the achievements of students from the educational component who are studying in the same course of the same specialty, according to the points they received.

The ECTS scale is a relative-comparative rating, which establishes the applicant's belonging to the group of better or worse among the reference group of fellow students (faculty, specialty). An "A" grade on the ECTS scale cannot be equal to an "excellent" grade, a "B" grade to a "good" grade, etc. When converting from a multi-point scale, the limits of grades "A", "B", "C", "D", "E" according to the ECTS scale do not coincide with the limits of grades "5", "4", "3" according to the traditional scale. Acquirers who have received grades of "FX" and "F" ("2") are not included in the list of ranked acquirers. The grade "FX" is awarded to students who have obtained the minimum number of points for the current learning activity, but who have not passed the final examination. A grade of "F" is given to students who have attended all classes in the discipline, but have not achieved a grade point average (3.00) for the current academic activity and are not admitted to the final examination.

Applicants who study in one course (one specialty), based on the number of points scored in the discipline, are ranked on the ECTS scale as follows:

Conversion of the traditional evaluation and and ECTS scores

Score on the ECTS scale	Statistical indicator
A	The best 10% students
B	Next 25% students
C	Next 30% students
D	Next 25% students
E	Next 10% students

10. Methodological support

- Working program for the educational component
- Silabus
- Methodological guidelines for practical classes
- Methodological recommendations for independent work of higher education students
- Multimedia presentations of the lecture course
- Situational / case tasks
- Role-playing scenarios (if necessary)
- Electronic bank of test tasks for modules I-III of the educational component
- Educational and methodical literature:

on the Topic Educational and methodical literature:

1. Texts of lectures on the discipline "Organization and economics in pharmacy" / LM Unhurian, OI Bieliaieva, I.S.Yashuk and oth. - Odessa: ONMedU, 2018. - 107 p.
2. Pharmaceutical Law and Legislation : the textbook for applicants for higher education / A.A. Kotvitskaya, I.V. Kubarieva, A.V. Volkova et al. Kharkiv : NUPh : Golden Pages, 2019.204 p.
3. Tests Krok-2

10. Questions to prepare for the final control (exam)

1. A complex of good practices as international standards for regulating pharmaceutical activities.
2. Pharmaceutical information system. Modern forms of information support for pharmacies.
3. Classification of medicines. The essence of the anatomical-therapeutic-chemical (ATC) classification system.
4. State formulary of medicines: definition, structure and content.

5. National List of Essential Medicines: definition, structure and content.
6. Organizational structure of the pharmaceutical industry in Ukraine.
7. Pharmacy as a health care institution. Classification of pharmacies.
8. Pharmacy point: definition, tasks, general organizational requirements.
9. Licensing conditions for carrying out economic activity in retail trade of medicinal products.
10. License conditions for carrying out economic activities for the manufacture of medicines in a pharmacy
11. Organizational structure of a pharmacy: premises, equipment and facilities.
12. Sanitary and hygienic requirements for premises and equipment of pharmacies
13. Requirements for personal hygiene of pharmacy staff
14. Nomenclature of positions of pharmacists in health care institutions, characteristics of pharmaceutical professions
15. Financial liability of pharmacy employees, concept, types and documentation.
16. Criteria for determining the categories of drugs.
17. Procedure for organizing the over-the-counter sale of medicines in Ukraine.
18. Procedure for organizing the over-the-counter sale of medicines in the EU and other countries of the world.
19. OTC drugs, general characteristics, procedure for their dispensing from pharmacies
20. The concept of responsible self-medication, definition, general characteristics, scope.
21. Organization of pharmaceutical care. Pharmacist protocols, types, general characteristics.
22. The procedure for organizing the dispensing of prescription drugs in Ukraine.
23. Features of dispensing prescription drugs in the EU and other countries of the world.
24. Procedure for dispensing prescription drugs from pharmacies and their structural units.
25. Rules for accepting prescriptions and dispensing medicines from pharmacies. The rights and responsibilities of a pharmacist in accepting prescriptions and dispensing medicines.
26. Rules for filling prescriptions for medicines. Types of prescription forms. Features of design for chronic patients.
27. Rules for storage and disposal of prescription forms.
28. Rules for accepting prescriptions and dispensing medicines for outpatients who are provided with medicines free of charge or with a surcharge.
29. Rules for receiving and dispensing medicinal products by electronic prescriptions.
30. Procedure for dispensing narcotic, psychotropic drugs, precursors to outpatients.
31. The procedure for licensing activities related to the turnover of narcotic drugs, psychotropic substances and precursors.
32. Responsibility for violation of the established rules of turnover of narcotic drugs, psychotropic substances and precursors.
33. Individual compounding of medicines in a pharmacy. Rules of compounding of medicines in pharmacies.
34. Requirements to the premises and equipment of pharmacies compounded of medicines.
35. Requirements for employees of pharmacies engaged in producing (manufacturing) medicines.
36. Rules for establishing the cost of extemporaneous medicines.
37. Methodology for determining tariffs for compounding of different types of extemporaneous medicines. .
38. Rules for pricing of solid extemporaneous medicines.
39. Rules for charging the cost of liquid extemporaneous medicines.
40. Rules for charging the cost of soft extemporaneous medicines.
41. Controlled accounting of certain categories of medicines in pharmacies: poisonous, potent, combined narcotic/psychotropic medicines.
42. Batch preparation of medicines in a pharmacy: general requirements for production
43. Legislative framework and management levels of the state system of quality assurance of

medicines in Ukraine.

44. State quality control of medicines in retail trade.
45. Organization of incoming quality inspection of medicines in pharmacies.
46. Rights and obligations of the authorized person of a pharmacy, qualification requirements.
47. Organization and forms of intra-pharmacy quality control of medicines, and recording of results.
48. State quality control of medicines produced in pharmacies.
49. Inventories in the structure of economic assets of pharmacies: characteristics and classification.
50. Good Storage Practice (GSP), definition, objectives, general characteristics.
51. Organization of storage of narcotic drugs, psychotropic substances and precursors in pharmacies.
52. Economic resources of pharmacy enterprises (assets): classification, structure, characteristics
53. Sources of economic resources of pharmacies (liabilities): definition, structure, characteristics
54. Receipt of goods and other material goods in pharmacies, rules of acceptance, posting, accounting.
55. Disposal of goods and other material goods from pharmacies, accounting rules.
56. Commodity report: structure, rules of registration, procedure for calculating the realized trade overhead.
57. Structure of retail and other types of pharmacy turnover, its accounting (documentation), calculations.
58. Fixed assets of pharmacies (pharmaceutical companies), their classification and valuation.
59. Remuneration systems for pharmacy employees. Structure of the payroll and its characteristics.
60. The procedure for calculating the basic salary.
61. The procedure for calculating various types of additional payments to a pharmaceutical employee.
62. The procedure for calculating mandatory deductions from the income of pharmaceutical employees.
63. Procedure for calculating mandatory deductions from the salary of pharmaceutical employees.
64. General provisions of cash handling in a pharmacy institution, their accounting.
65. Responsibilities and duties of the cashier of a pharmacy.
66. The procedure for carrying out cash payments in a pharmacy.
67. Rules of work with the registrar of cash transactions.
68. Forms of settlement documents.
69. The procedure for depositing cash proceeds to the bank.
70. Determination of the cash desk limit in a pharmacy institution
71. Procedure for non-cash payments when selling (dispensing) medicinal products from a pharmacy.
72. Types of bank accounts, their general characteristics.
73. The structure of the balance sheet, the method of its formation.
74. The relationship between the balance sheet and business operations. Types of changes.
75. Stocktaking of inventory: tasks, terms, types and documentation of results.
76. Stocktaking of medicinal products subject to controlled accounting: procedure, documentation.
77. Management reporting: concept, essence and users of management reporting.
78. Economic statistics: forms, frequency and deadlines for reporting.

79. Types and general characteristics of economic indicators of trade and financial activities of pharmacies.
80. Turnover of pharmacy enterprises, its characteristics, content, value as an economic indicator.
81. Planning of the standard of commodity stocks of a pharmacy institution.
82. Trade markups: characteristics and factors affecting their size.
83. Expenses of pharmacies (pharmaceutical companies), classification, characteristics, reflection in accounting.
84. Calculation of financial results of pharmacies: trade markups, profit, profitability.
85. The concept of cost and price of medicines. Types of prices, their functions.
86. The procedure for state regulation of prices for medicines.
87. Methods of determining retail prices for medicinal products of industrial production.
88. Economic mechanisms for increasing the availability of medicines. Reference pricing.
89. The concept of taxes, their classification.
90. Characteristics of indirect taxes. Peculiarities of determining VAT in the sale of medicines

12. Recommended literature

Basic

1. Texts of lectures on the discipline "Organization and economics in pharmacy" / LM Unhurian, OI Bieliaieva, IV Vyshnytska, OO Alexandrova. - Odessa: ONMedU, 2018. - 107 p.
2. Pharmaceutical Law and Legislation : the textbook for applicants for higher education / A.A. Kotvitskaya, I.V. Kubarieva, A.V. Volkova et al. Kharkiv : NUPh : Golden Pages, 2019. 204 p.
3. Organization of pharmaceutical aid to the population / Under ed. prof. Nemchenko A.S. - Kharkov, 2016.- Unit 1, 116 p.
4. Introduction into the pharmacy: teach. manual / Under the general editorship: A.S. Nemchenko. - Kh.: NUPh, 2016 - 115 p.

Additional

1. Comorbidities as factors influencing choice of drug in arterial hypertension therapy/ Vyshnytska Iryna, Unhurian Liana, Bieliaieva Oksana, Pietkova Iryna. Medical theory: collective monograph / Bulavenko Olga, Muntian Olga, Muntian Maksym, Yarovenko Anatolii, etc. International Science Group. Boston: Primedia eLaunch, 2020. P. 68-76. Available at: DOI: 10.46299/isg.2020.MONO.MED.II
2. Methodical approaches to teaching pharmacoeconomics at the faculty of pharmacy/ Vyshnytska Iryna, Unhurian Liana, Bieliaieva Oksana, Smyrnova Olha. Scientific foundations of modern pedagogy: collective monograph / Bets I., Bets Yu., Filippov M., etc. International Science Group. Boston: Primedia eLaunch, 2020. P. 76-82 Available at: DOI: 10.46299/isg.2020.MONO.PED.II
3. Unhurian L., Bielyaieva O., Vyshnytska I., Suschuk N., Petkova I. (2018) Implementation of Standards of Good Pharmacy Practice in the World: A Review. Asian Journal of Pharmaceutics. Vol. 4. N 1 (Suppl). Pp. 42 - 46.
4. Unhurian L., Bielyaieva O., Burenkova N. (2017) Analysis of the Modern Pharmaceutical Market of Anxiolytic Drugs in Ukraine. International Journal of Pharmaceutical Sciences Review and Research. Vol. 43 N 1. Pp. 169 – 172.
5. Standarts for quality of pharmacy services <http://fip.org/files/fip/Statements/latest/Dossier%20004%20total.PDF>
6. Good pharmacy practice in community and hospital pharmacy settings <http://apps.who.int/medicinedocs/documents/s21088en/s21088en.pdf>
7. International health systems http://www.pnhp.org/facts/international_health_systems.php?page=all
8. The legal and regulatory framework for community pharmacies in the WHO European Region <https://apps.who.int/iris/bitstream/handle/10665/326394/9789289054249-eng.pdf>

10. Asset Management Ratios

<https://courses.lumenlearning.com/boundless-finance/chapter/asset-management-ratios/>

11. Financial Analysis in Pharmacy Practice E-resource <https://pdfs.semanticscholar.org/3104/8f567e76089ed7d33c5224c3c4c0faec06bf.pdf>**11.** Electronic information resources

1. Departments' site: http://info.odmu.edu.ua/chair/economy_pharmacy/files

2. Ministry of Health of Ukraine http://www.moz.gov.ua/ua/portal/dn_20050719_360.html

3. World Health Organization <http://www.who.int/>

4. European Regional Office of the World Health Organization.
URL: www.euro.who.int.

5. National Scientific Medical Library of Ukraine <http://library.gov.ua/>

6. National Library of Ukraine named after V.I. Of Vernadsky <http://www.nbuv.gov.ua/>

7. Modern healthcare. URL: <https://www.modernhealthcare.com/vital-signs->

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