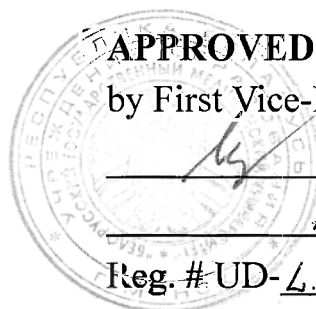
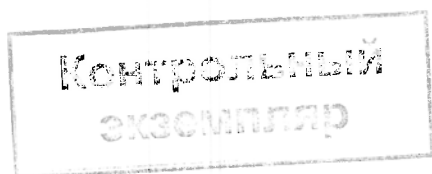


**MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS
EDUCATIONAL INSTITUTION
BELARUSIAN STATE MEDICAL UNIVERSITY**



APPROVED

by First Vice-Rector, Professor

I.N.Moroz

18.06.2019

Reg. # UD-L. 589/1920 /edu.

**MANAGEMENT AND ECONOMICS OF PHARMACEUTICAL
ENTERPRISES**

**Curriculum of higher educational institution
in the educational discipline for the specialty:**

1-79 01 08 «Pharmacy»

The curriculum is based on the curriculum «Management and economics of pharmaceutical enterprises», approved 26.04.2017, registration # УД-Л.589/1617/уч.

COMPILERS:

Golyak N.S., PhD, associate professor, Head of the Department of Pharmaceutical Technology of the Educational Institution «Belarusian State Medical University»;

Sechko O.G., Master of Pharmaceutical Sciences, teacher of the Department of Pharmaceutical Technology of the Educational Institution «Belarusian State Medical University»

RECOMMENDED FOR APPROVAL:

by the Department of Pharmaceutical Technology of the Educational Institution «Belarusian State Medical University»
(protocol № 9 of 10.04.2019);

by the Methodological Commission of Pharmaceutical Disciplines) of the Educational Institution «Belarusian State Medical University»
(protocol № 9 of 23.05.2019);

EXPLANATORY NOTE

«Management and economics of pharmaceutical enterprises» is the educational discipline containing systematized scientific knowledge about the organization and economics of pharmaceutical production, effective management of the resource and scientific-technical potential, and innovative and investment activity of pharmaceutical enterprises in order to improve its economic stability and competitiveness in the market conditions.

The purpose of teaching and learning the discipline «Management and economics of pharmaceutical enterprises» is to provide the students with the scientific knowledge necessary for a rational use of resources of pharmaceutical enterprises, optimize its performance, choosing the right strategy and tactics in a changing market environment, taking into account the economic requirements of the laws and regulations of the Republic of Belarus.

The tasks of studying the discipline are to develop the students' academic competences, based on the ability to self-search educational and information resources, as well as acquire and understand the knowledge of:

- institutional, industrial and economic foundations of the functioning of pharmaceutical enterprises;
- factors that determine the effectiveness of a pharmaceutical enterprise in the current economic conditions;
- principles of organization of the production process;
- methods and techniques of evaluation of the results of production activities of the enterprise.

The tasks of teaching the discipline include the formation of students' social, personal and professional competences, based on the knowledge and application of:

- methods for the calculation of basic financial and technical and economic performance of pharmaceutical enterprises;
- methods of planning and management software;
- techniques and tools of economic justification of investment and innovation projects.

Teaching and successful learning of the discipline «Management and economics of pharmaceutical enterprises » is carried out on the basis of the knowledge and skills previously acquired by the students in the following disciplines:

Fundamentals of Medical Statistics. Processing and analysis of measurement results. Mathematical methods for the solution of the problems and their use in pharmacy. Methods of optimizing the management of pharmacy.

History of Pharmacy. Formation and development of a pharmaceutical industry.

Pharmaceutical Hygiene. Hygiene pharmaceutical enterprises. Hygienic requirements for industrial production, storage and distribution of medicinal products and the working conditions of employers of pharmaceutical enterprises.

Organization and Economics of Pharmacy. Normative legal support, public health policy and the medicine market. The health care system, economic entities of a

pharmaceutical market of the Republic of Belarus. Licensing of pharmaceutical activity. Standardization of a pharmaceutical activity. Pharmaceutical Logistics.

As a result of studying the discipline «Management and economics of pharmaceutical enterprises » the student should

know:

- normative and legal support of activities of pharmaceutical enterprises;
- classification of pharmaceutical enterprises by the organizational and legal basis;

- especially the organization of the production process at a pharmaceutical enterprise;

- the structure and development of the business plan of pharmaceutical enterprises;

- the essence of innovation and investment activities of pharmaceutical enterprises;

be able to:

- identify the direction of the most effective functioning of a pharmaceutical enterprise;

- identify sources of funding and logistics of production;

master:

- skills in the formation and management of the production structure of pharmaceutical enterprises;

- methods of calculation of the basic financial and technical and economic performance of pharmaceutical enterprises;

- methods of improving the competitiveness of products.

Total number of hours for the study of the discipline is 108 academic hours. Classroom hours according to the types of studies: lectures - 18 hours, laboratory studies - 48 hours; student independent work (self-study) - 42 hours.

Current assessment is carried out according to the syllabus of the specialty in the form of a credit (7 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 current assessment
		total	in-class	including		out-of-class self-studies	
				lectures	laboratory studies		
1-79 01 08 «Pharmacy»	7	108	66	18	48	42	credit
Total hours		108	66	18	48	42	

THEMATIC PLAN

Name of the section (topics)	Number of hours for classes	
	lectures	practical classes
1. Pharmaceutical enterprise and bases of its operation	6	24
1.1. Introduction to the discipline «Management and economics of pharmaceutical enterprises». Pharmaceutical industry as a branch of the national economy and the object of state regulation	-	3
1.2. Pharmaceutical enterprise as a business entity. Classification, structure, functioning environment of a pharmaceutical enterprise	2	3
1.3. Organization of production processes at a pharmaceutical enterprise	2	3
1.4. Fundamentals of the effective use of material and technical resources, production maintenance at a pharmaceutical enterprise	-	3
1.5. Labor and intellectual resources of a pharmaceutical enterprise	2	3
1.6. Organization, rationing and salary at a pharmaceutical enterprise	-	3
1.7. Formation of costs for the production and sale of products, the pricing policy of a pharmaceutical enterprise	-	3
1.8. Ensuring labor protection requirements at a pharmaceutical enterprise	-	3
2. Fundamentals of management by pharmaceutical enterprise and by quality of products	12	24
2.1. Good Engineering Practice (GEP) at a pharmaceutical enterprise	2	3
2.2. Product quality, competitiveness of product and pharmaceutical enterprises	2	3
2.3. Accounting and reporting at a pharmaceutical enterprise	-	3
2.4. Fundamentals of the efficient use of financial resources and analysis of the financial condition of a pharmaceutical enterprise	-	3
2.5. Analysis of efficiency of economic activities of a pharmaceutical enterprise	2	3
2.6. Management activities at a pharmaceutical enterprise	2	3
2.7. Planning at a pharmaceutical enterprise. Management of entrepreneurial risks	2	3
2.8. Innovation and investment activities of pharmaceutical enterprises	2	2
2.9. Scientific and technological potential of a pharmaceutical enterprise and its development. Foreign economic activity of a pharmaceutical enterprise	-	1
Total	18	48

CONTENT OF THE EDUCATIONAL MATERIAL

1. Pharmaceutical enterprise and based of its operation

1.1. Introduction to the discipline «Management and economics of pharmaceutical enterprises». Pharmaceutical industry as a branch of the national economy and the object of state regulation

Purpose, tasks and object of study the discipline «Management and economics of pharmaceutical enterprises», integration with other academic disciplines.

Principles and methods of state regulation of the economy. State regulation of the economy in the Republic of Belarus. Pharmaceutical industry as a priority sector of the national economy and its role in shaping the export potential and economic security of the country. The state program of development of a pharmaceutical industry of the Republic of Belarus for 2016-2020 years.

The role of the Ministry of Health of the Republic of Belarus in the sphere of industrial production of pharmaceutical products.

Pharmaceutical enterprise as the object of state regulation. Normative legal maintenance of activity of pharmaceutical enterprises. Functions of the government to regulate the production of enterprises.

The procedure for obtaining a license for doing pharmaceutical activities and doing activities related with narcotic medicines, psychotropic substances and their precursors. Works and services related with industrial production of medicinal products and their wholesale.

1.2. Pharmaceutical enterprise as a business entity. Classification, structure, functioning environment of a pharmaceutical enterprise

Pharmaceutical enterprise as a business entity. The legal capacity of the enterprise as a legal entity. The stages of the enterprise life cycle.

Classification of enterprises according to various criteria: type of ownership, size, accessories of capital, the participation of foreign capital, expertise, organizational and legal status, type of production.

The process of creation and registration of the enterprise. Sources of formation and replenishment of the authorized fund of the enterprise. Methods of management: budget, economic and commercial calculation.

Corporate forms of enterprises: corporations, conglomerates, holding enterprises, financial-industrial groups, clusters. Corporate forms of pharmaceutical enterprises in the Republic of Belarus. Union medical, pharmaceutical, scientific and educational organizations «Medicine and Pharmaceutics - innovative projects».

General and industrial structure of a pharmaceutical enterprises.

The internal functioning environment of pharmaceutical enterprise.

The external environment of the direct and indirect impact on the enterprise. Factors and conditions that determine the macro- and microenterprises. Restructuring as an effective form of organization to adapt to the external environment.

1.3. Organization of production processes at a pharmaceutical enterprise

The essence of the concepts of «production» and «reproduction». Factors of production: natural resources, capital, labor, entrepreneurial, information. Means of production.

Classification and principles of the production process. Production types (mass, mass, individual), their technical and economic characteristics. Forms of production organization: concentration, specialization, cooperation, combination, integration of enterprises. Forms of organization of pharmaceutical production in Belarus.

The production program of the enterprise, its essence and system performance. Rhythm of production. Production capacity and ways to improve its use.

Features of the organization of the production process in a pharmaceutical enterprise. Production of medicines. Good manufacturing practice (GMP). Preparation facilities, technological equipment and workers to industrial production of medicinal products. The system of pharmaceutical enterprise documentation.

Economic, resource, technical, environmental and social effects of production. Intensification of economic development. Extensive and intensive type of economic growth.

Diversification of production. Assortment management of manufactured pharmaceutical products and the formation of the assortment of a pharmaceutical enterprise.

1.4. Fundamentals of the effective use of material and technical resources, production maintenance at a pharmaceutical enterprise

Production resources and their classification. Sources of financing and logistics of production.

Concept, classification, structure types valuation of major pharmaceutical enterprise funds. Depreciation and amortization of fixed assets of pharmaceutical enterprises. Estimation of economic efficiency of use of fixed assets for a pharmaceutical enterprise (capital productivity, capital intensity, profitability), ways of increasing the efficiency of their use.

Definition and classification of working capital of a pharmaceutical enterprise. Rationing of circulating assets of pharmaceutical enterprises. Ways to improve the efficiency of working capital of a pharmaceutical enterprise.

Material resources of a pharmaceutical enterprises: the main and auxiliary materials, semimanufactures products and components, fuel and energy. Indicators and methods for determining the effect and efficiency of the use of material resources pharmaceutical enterprises (consumption of materials production, profitability material costs).

Determining the needs of pharmaceutical enterprises for material resources. Secondary material resources of production and efficiency of their use. The main areas of efficient use of material resources of a pharmaceutical enterprises.

1.5. Labor and intellectual resources of a pharmaceutical enterprise

The economic essence of the concepts of «work» and «human resources».

Classification of workers and statistics of their numbers. Professional structure and competitiveness of workers.

Personnel policy at a pharmaceutical sector and the definition of the needs of pharmaceutical enterprises for workers.

Productivity and economic value of its growth. Labor productivity at a pharmaceutical enterprise and methods of their determination. Factors and main ways of increasing productivity.

The economic essence and classification of intellectual resources. Patent and patent research. Valuation of intellectual property.

Secure information. Trade secret.

1.6. Organization, rationing and salary at a pharmaceutical enterprise

The nature, content and main tasks of work organization. Forms of division and cooperation of labor. Organization and maintenance of jobs at a pharmaceutical enterprise.

The content and regulation of labor functions. The main types of standards labor and labor outcomes: the norms of working hours, labor intensity, production, service, strength, standardized tasks, and complex operating rules at the brigade form of organization of labor, etc.

Forms and systems of remuneration at a pharmaceutical enterprise. The tariff system. Uniform tariff-qualification reference works and trades workers. A single qualifying reference positions of employers. Unified Tariff Scale. The system of surcharges, allowances and payments to tariff rates of a pharmaceutical enterprise's employers. Payroll management. The ability to use flexible remuneration systems.

Formation of a pharmaceutical enterprise system of incentives and motivation, contributing to the creative development of employers and labor productivity growth.

1.7. Formation of costs for the production and sale of products, the pricing policy of a pharmaceutical enterprise

The costs of pharmaceutical enterprises and their classification. The concept of production costs, its structure and types. Management of production costs. Factors, ways and means of reducing production costs. Operating expenses. Calculation of the cost per unit of output. Costing. State regulation of the cost of production and sales.

The economic essence of the price of goods, classification and function of prices. Pricing principles in a pharmaceutical enterprise. Pricing factors.

Pricing policy of pharmaceutical enterprises. Pricing strategies.

Methods of formation of medicine prices. State regulation of prices and pricing. State regulation of prices for medicines in the Republic of Belarus.

1.8. Ensuring labor protection requirements in a pharmaceutical enterprise

Compliance of a pharmaceutical enterprise with legal requirements in the field of occupational safety and health: Law of the Republic of Belarus «Occupational safety and health», concepts of state management of labor protection in the Republic of Belarus, the state standard of the Republic of Belarus STB 18001-2009 «Safety management systems. Requirements.

Duties of the employer and the occupational safety of the employer.

Development, implementation, operation and improvement of the safety management system (SMS) in a pharmaceutical enterprise. Analysis and evaluation of operation of SMS. Technical code of practice (TCP) 031-2006 (09140). Production of medicines. Rules for the development of industrial safety documentation, safety and working conditions.

The main policy objectives in the field of occupational safety and health, the objectives and programs to improve working conditions and safety in a pharmaceutical enterprise.

Organization of training, training and testing of knowledge workers on safety. Certification of workplaces and the provision of compensation for working conditions. Prevention of occupational injuries. Medical examinations.

Control over compliance with the requirements of labor protection. Organization of monitoring the implementation of the labor protection policy requirements, goals and risk management programs.

2. Fundamentals of management by pharmaceutical enterprise and quality products

2.1. Good Engineering Practice (GEP) at a pharmaceutical enterprise

The concept of «manufacturing engineering» and «re-engineering of production», their contents. Good Engineering Practice (GEP), the history and development. The life cycle engineering. Principles and GEP structure. Description of GEP in the enterprise. Production systems. Verification. Examination of the project.

ISPE Guide (The International Society for Pharmaceutical Engineering), its structure.

TCP 445-2012 (02041). Production of medicines. Procedure for the preparation and dispensing of initial data for the design of new, extension, reconstruction and retooling pharmaceutical industries.

TKP 446-2012 (02041). Production of medicines. Design rule for pharmaceutical production.

2.2. Product quality, competitiveness of product and pharmaceutical enterprises

Product quality as the main factor of production efficiency and competitiveness of the goods. Indicators of the quality of products and methods of their determination. Quality management system at a pharmaceutical enterprise. Quality Management System. Standardization and certification. Ways to improve the quality of products. Organizational forms and methods of technical quality control of products at a pharmaceutical enterprise.

Terms and their definitions: competition, competitiveness, competitive advantage. Factors of competitiveness and competitive advantages of a pharmaceutical enterprises and medicines. Methods for assessing the competitiveness of enterprises and products. The components of the integral index of competitiveness of the goods. Methods to improve the competitiveness of products. Increasing export potential produced medicaments.

Pharmacovigilance and monitor medicine safety. The main objectives of the pharmacovigilance system producer of medicines. The order of organization of the system of pharmacovigilance, and the procedure for control of producers of medicinal products for compliance with the organization and functioning of the pharmacovigilance system to the requirements of Good Pharmacovigilance Practice (GPP).

Basic directions of increase of economic efficiency and the competitiveness of a pharmaceutical enterprises of the Republic of Belarus. State regulation of the competitive environment and to create conditions for improving the competitiveness of enterprises. Antitrust policy of the state.

Non-price factors in the sphere of circulation system, improve the competitiveness of the organization. Industrial Services. Formation of brands and branding enterprises. The enterprise's image.

Sales promotion of products in the system increase the competitiveness of goods.

2.3. Accounting and reporting at a pharmaceutical enterprise

Accounting and its significance for controlling the operation of a pharmaceutical enterprises. Features of the organization and objectives of the operational, statistical and accounting at a pharmaceutical enterprise.

Accounting statements as a source of information support of economic activities at pharmaceutical enterprises. The main technical and economic indicators of a pharmaceutical enterprises. The quarterly and annual industrial pharmaceutical enterprise reporting.

Summary of the balance sheet of pharmaceutical enterprises.

2.4. Fundamentals of the efficient use of financial resources and analysis of the financial condition of a pharmaceutical enterprise

The nature and content of finances of pharmaceutical enterprises. Their role in the financial system. Sources of formation, structure and functions of finance pharmaceutical enterprises. Capital pharmaceutical enterprises. The content of the financial activities in pharmaceutical enterprises and factors affecting its performance.

The content of the financial and economic analysis. Goals, objectives and sources of information for financial analysis at pharmaceutical enterprises. Analysis of financial stability, solvency and liquidity at pharmaceutical enterprises. Diagnosis of insolvency and potential bankruptcy at pharmaceutical enterprises.

Sanitation and ways to prevent the bankruptcy of a pharmaceutical enterprise.

2.5. Analysis of efficiency of economic activities of a pharmaceutical enterprise

Traditional indicators of production and market results.

Income pharmaceutical enterprises: the nature, types and figures.

Essence and profit figures, its formation and distribution. Profit function as an economic category. Basic directions of increase of profits of a pharmaceutical enterprises.

The profitability of pharmaceutical enterprises, the types of cost-effectiveness.

Methods of calculating the basic financial, technical and economic performance of pharmaceutical enterprises. Taxes and fees of pharmaceutical enterprises.

The concept of economic efficiency of production and pharmaceutical enterprises. Indicators, methods of determining the main directions of improving the economic efficiency of pharmaceutical enterprises. Given the trend of the world economy in assessing the cost-effectiveness of pharmaceutical enterprises.

2.6. Management activities at a pharmaceutical enterprise

Pharmaceutical enterprise as an object and subject of management. Evolution of Scientific Schools (theories) control. The process, system and situational approaches in management. The mission of pharmaceutical enterprises, the

formulation of long-, medium- and short-term objectives, the justification and evaluation of policies and development objectives. Identifying the most effective functioning of a pharmaceutical enterprise.

The organizational structure of the enterprise management. Especially a pharmaceutical industry management.

The organization of employers work at pharmaceutical enterprises in accordance with the requirements of normative legal acts.

Basics of organization management in case of economic insolvency (bankruptcy).

Organization of document management at pharmaceutical enterprises.

2.7. Planning at a pharmaceutical enterprise. Management of entrepreneurial risks

The essence, goals and planning tasks at a pharmaceutical enterprise. Classification of plans. Planning methods of development at pharmaceutical enterprises.

The business plan of a pharmaceutical enterprise, its structure and methodological foundations of development. Feasibility study. Planning the production program of pharmaceutical enterprise.

Entrepreneurial risks of pharmaceutical enterprises, their nature, types, evaluation methods. The main directions and methods to reduce business risks. Management of business risks.

2.8. Innovation and investment activities of pharmaceutical enterprises

The essence of innovation policy and innovation of pharmaceutical enterprises. The main provisions of the Law of the Republic of Belarus «Innovation policy and innovations in the Republic of Belarus». Innovative projects and programs. Infrastructure of innovations. Strategy innovation enterprise. Stages of innovation. Innovation product as a result of innovation. Innovation risks.

The nature and classification of investments. Investment activities and investment projects of pharmaceutical enterprises. Objects and forms of investment activity. Estimation of economic efficiency of investment projects. Investment risks. Ways to improve the efficiency of investment activity of the enterprise. Investment potential.

Creating the conditions for the transition of a pharmaceutical industry of the Republic of Belarus with the investment in the innovative development model.

2.9. Scientific and technological potential of a pharmaceutical enterprise and its development. Foreign economic activity of a pharmaceutical enterprises

The essence of the scientific and technological potential of a pharmaceutical enterprise and its components. Scientific and technical activity and scientific work of pharmaceutical enterprises. Applied researches. Indicators of scientific and technological development, economic assessment of its effectiveness.

The main directions of development of scientific and technical potential of a pharmaceutical enterprises.

State Incentives for the creation of new high-tech industries. State scientific and technical programs.

Foreign trade activities of pharmaceutical enterprises.

EDUCATIONAL DISCIPLINE CURRICULAR CHART

Section, topic #	Section (topic) name	number of hours			Self-studies	Equipment:	Form of con.rol
		lectures	practical (laboratory)				
1.	Pharmaceutical enterprise and bases of its operation	6	24	17			
1.1.	Introduction to the discipline «Management and economics of pharmaceutical enterprises ». Pharmaceutical industry as a branch of the national economy and the object of state regulation	-	3	3			Test, abstracts, interview, written reports on classroom practical exercises
1.2.	Pharmaceutical enterprise as a business entity. Classification, structure, functioning environment of a pharmaceutical enterprise	2	3	2			Test, interview, written reports on classroom practical exercises
1.3.	Organization of production processes at a pharmaceutical enterprise	2	3	2			Test, interview, written reports on classroom practical exercises, evaluation based on the «business game»
1.4.	Fundamentals of the effective use of material and technical resources, production maintenance at a pharmaceutical enterprise	-	3	2		calculator	Test, interview, written reports on classroom practical exercises, assessment based on the solution of situational tasks

Section, topic #	Section (topic) name	number of hours			Self-studies	Equipment	Form of control
		lectures	practical (laboratory)				
1.5.	Labor and intellectual resources of a pharmaceutical enterprise	2	3	2	calculator	Test, interview, written reports on classroom practical exercises, written reports on laboratory work, evaluation based on the «business game»	
1.6.	Organization, rationing and salary at a pharmaceutical enterprise	-	3	2	calculator	Test, interview, written reports on classroom practical exercises, assessment based on the solution of situational tasks	
1.7.	Formation of costs for the production and sale of products, the pricing policy of a pharmaceutical enterprise	-	3	2	calculator	Test, interview, written reports on classroom practical exercises, assessment based on the solution of situational tasks	
1.8.	Ensuring labor protection requirements at a pharmaceutical enterprise	-	3	2		Test, interview, written reports on classroom practical exercises, assessment based on the solution of situational tasks	
2.	Fundamentals of management of pharmaceutical enterprise and quality of products	12	24	22			

Section, topic #	Section (topic) name	number of hours		Self-studies	Equipment	Form of control
		lectures	practical (laboratory)			
2.1.	Good Engineering Practice (GEP) at a pharmaceutical enterprise	2	3	3		Test, interview, written reports on classroom practical exercises, evaluation based on the «business game»
2.2.	Product quality, competitiveness of product and pharmaceutical enterprises	2	3	3	calculator	Test, interview, written reports on classroom practical exercises
2.3.	Accounting and reporting at a pharmaceutical enterprise	-	3	2	calculator	Test, interview, written reports on classroom practical exercises
2.4.	Fundamentals of the efficient use of financial resources and analysis of the financial condition of a pharmaceutical enterprise	-	3	3	calculator	Test, interview, situational task, written reports on classroom practical exercises
2.5.	Analysis of efficiency of economic activities of a pharmaceutical enterprise				calculator	Tests, interview situational task, written reports on classroom practical exercises, assessment based on the solution of situational tasks
2.6.	Management activities at a pharmaceutical enterprise	2	3	3		Test, interview, written reports on classroom practical exercises, written reports on laboratory work

Section, topic #	Section (topic) name	number of hours			Self-studies	Equipment	Form of control
		lectures	practical (laboratory)				
2.7.	Planning at a pharmaceutical enterprise. Management of entrepreneurial risks	2	3	2		Test, interview, written reports on classroom practical exercises	
2.8.	Innovation and investment activities of pharmaceutical enterprises	2	2	2		Test, interview, written reports on classroom practical exercises, assessment based on the solution of situational tasks	
2.9.	Scientific and technological potential of a pharmaceutical enterprise and its development. Foreign economic activity of a pharmaceutical enterprise	-	1	2		Test, interview, credit	

INFORMATION AND INSTRUCTIONAL UNIT

LITERATURE

Basic:

1. Management and Marketing in Pharmacy [Electronic resource]: The textbook for foreign students of higher pharmaceutical schools: in 2 parts / Z. Mnushko [at al.], ed. by prof. Z. Mnushko; National University of Pharmacy. – Electronic text data. – Kharkiv: Publishing center «Dialog», 2016. – Part II: Marketing in Pharmacy – 320 p.

LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms are used for competences assessment:

1. Oral form:

- interview;
- situational task

2. Written form:

- tests;
- written reports on classroom practical exercises;
- written reports on laboratory work;
- evaluation based on the «business game»;
- assessment based on the solution of situational tasks;

3. Oral-written form:

- credit.

LIST OF LECTURES

1. Pharmaceutical enterprise as a business entity. Classification, structure, functioning environment of pharmaceutical enterprises.
2. Organization of production processes at a pharmaceutical enterprise.
3. Labor and intellectual resources of a pharmaceutical enterprise.
4. Good Engineering Practice (GEP) at a pharmaceutical enterprise.
5. Product quality, product competitiveness and pharmaceutical enterprises.
6. Analysis of efficiency of economic activities of a pharmaceutical enterprise.
7. Management activities at a pharmaceutical enterprise.
8. Planning at pharmaceutical enterprises. Management of entrepreneurial risks.
9. Innovation and investment activities of pharmaceutical enterprises.

LIST OF LABORATORY (*PRACTICAL*) STUDIES

1. Introduction to the discipline «Management and economics of pharmaceutical enterprises ». Pharmaceutical industry as a branch of the national economy and the object of state regulation.
2. Pharmaceutical enterprise as a business entity. Classification, structure, functioning environment of pharmaceutical enterprises.
3. Organization of production processes at a pharmaceutical enterprise.
4. Fundamentals of the effective use of material and technical resources, production maintenance at a pharmaceutical enterprise.
5. Labor and intellectual resources of a pharmaceutical enterprise.
6. Organization, rationing and salary at a pharmaceutical enterprise.
7. Formation of the cost of production and sales, the pricing policy of pharmaceutical enterprises.
8. Ensuring labor protection requirements at a pharmaceutical enterprise.
9. Good Engineering Practice (GEP) at a pharmaceutical enterprise.
10. Product quality, product competitiveness and pharmaceutical enterprises.
11. Accounting at a pharmaceutical enterprise.
12. Fundamentals of effective use of financial resources and analysis the financial condition of pharmaceutical enterprises.
13. Analysis of efficiency of economic activities of a pharmaceutical enterprise.
14. Management activities at a pharmaceutical enterprise.
15. Planning in pharmaceutical enterprises. Management of entrepreneurial risks.
16. Innovation and investment activities of pharmaceutical enterprises.
17. Scientific and technological potential of a pharmaceutical enterprise and its development. Foreign trade activities of pharmaceutical enterprises.

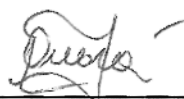
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Curriculum content, composition and accompanying documents comply with established requirements.

Dean of the Medical Faculty of
International Students of the
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17.06.2019



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