## ***Summary of the working program of the academic discipline***

«**MANAGEMENT AND ECONOMICS OF PHARMACY**»

General Educational Program of higher education (specialist's degree programs): *33.05.01* *Pharmacy*

Department: *Management and Economics of Pharmacy and Pharmaceutical Technology*

**1. The purpose of mastering the discipline** – participation in forming the following competencies:

* universal competencies (UC-2, UC-9);
* general professional competencies (GPC-3 (3.1-3.2), GPC-6 (6.1, 6.2, 6.4);
* professional competencies (PC-2 (2.1-2.6), PC-4 (4.4), PC-5 (5.1-5.7), PC-8 (8.1-8.5), PC-9 (9.1-9.3), PC-10 (10.1-10.2)).

2. Position of the academic discipline in the structure of the General Educational Program (GEP)

**2.1.** The discipline refers to the core partof Block 1 of GEP HE (B1.C.34).

**3. Deliverables of mastering the academic discipline and metrics of competence acquisition**

Mastering the discipline aims at acquiring the following universal (UC), general professional (GPC) and professional (PC) competencies

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| № | Compe-tence code | The content of the competence (or its part) | Code and name of the competence acquisition metric | As a result of mastering the discipline, the students should: | | |
| know | be able to | possess |
|  | UC-2 | Able to manage the project at all stages of its life cycle | UC-2.1. Formulates a project task on the basis of the set problems and a method of its solutions through the implementation of the project management  UC-2.2. Develops a project concept within the framework of the designated problem: formulates the purpose, tasks, justifies the relevance, significance, expected results and possible areas of their application  UC-2.3. Plans necessary resources, including taking into account their replaceability  UC-2.4. Develops a project implementation plan using planning tools  UC-2.5. Monitors the progress of the project, corrects deviations, makes additional changes to the project implementation plan, clarifies zones of responsibilities of project participants | * theoretical foundations and basic concepts and definitions in the field of project management; * basic legislative and regulatory documents, basic ethical constraints accepted in society, basic concepts, methods of developing and justifying task solutions within the framework of the set goal, based on the current legal regulations, available resources and limitations, methods of selecting the optimal task solution; * the most important principles, functions and methods of project management; * methods of achieving the set goal, including the use of service capabilities of the relevant information (legal reference) systems. | * formulate project goals, formulate requirements for the project; * define the expected results of the tasks and develop different types of plans to implement projects taking into account the current legal norms, available resources and limitations, to search for the best ways to solve the tasks, taking into account the current legal norms, available resources and limitations; * participate in the exchange of information, knowledge and experience in the interests of the team task, presenting professional tasks; * organize and supervise the implementation of the project. | * the skills of designing the solution of the problem, choosing the best way to solve it, assessing the likely risks and limitations in the choice of solutions to the problems set; * special terminology in the field of project management; * skills of applying different tools in project activities. |
|  | UC-9 | Able to make informed economic decisions in various areas of life | UC-9.1. Knows the main points and methods of economic science and management, their legal reflection and provision in the Russian legislation; the current state of the world economy and the peculiarities of the functioning of Russian markets; the role of the state in coordinating long-term and short-term economic interests of societies.  UC-9.2. Uses economic knowledge to understand the driving forces and patterns of the historical process, to analyze socially significant problems and solve social and professional tasks.  UC-9.3. Finds effective organizational and managerial solutions, independently masters applied economic knowledge, necessary for work in the professional field. | * legal, legislative and administrative procedures and policies relating to all aspects of pharmaceuticals * understanding of the use value and consumer properties of drugs and other pharmaceutical products and the factors that affect them * record keeping by pharmaceutical wholesalers and retailers * basic principles of state regulation and the process of pricing of pharmaceutical products at all stages of the movement of goods * methods of determining the needs and demand for various groups of drugs and other pharmaceutical products * basic accounting principles of inventory, cash and settlements * taxation systems of pharmaceutical companies * methods of financial analysis of the main indicators of pharmaceutical organizations activities * principles of audit and management of business processes in pharmaceutical organizations * principles of developing a business plan for pharmaceutical organizations | * make reasonable economic decisions when carrying out activities in the field of circulation of medicines; * determine the demand and need for various groups of pharmaceutical products * create prices for the goods of pharmaceutical assortment at all stages of commodity circulation, including intra-pharmacy manufacturing * to analyze the financial and economic situation of the pharmacy and develop measures to improve the efficiency of pharmaceutical organizations * to forecast the economic performance of pharmaceutical organizations and their structural subdivisions | * methods of financial and economic analysis, analysis of the main indicators of pharmacy activities * skills in analyzing the state of property and liabilities of a pharmacy * skills in assessing the degree of entrepreneurial risk * skills to make sound economic decisions in carrying out activities in the field of circulation of medicines; * methods of studying demand, forming an assortment and forecasting requirements for drugs and other pharmaceutical products * how to form prices for medicines and other pharmaceutical products |
|  | GPC-3 | Able to carry out professional activities taking into account specific economic, environmental, social factors within the framework of the system of regulations of the medicine circulation sphere | GPC-3.1. Complies with norms and rules established by the authorized state authorities when solving the tasks of professional activity in the field of medicine circulation  GPC-3.2. Takes into account economic and social factors influencing the financial and economic activities of pharmaceutical organizations when making management decisions | * the structure of the modern health care system of the Russian Federation, * the basics of the legislation of the Russian Federation on the protection of citizens' health, * basic regulatory and legal documents governing relations in the field of circulation of medicines * the state guarantees the availability of medicines, the basics of the organization of drug supply for outpatients and inpatients drugs at full cost, as well as citizens eligible for social assistance * the procedure and requirements for the implementation of pharmaceutical activities * legal norms relating to state control and supervision, as well as liability for offenses in the field of pharmaceutical activities * the norms of legislation relating to state regulation of labor relations between pharmaceutical professionals and organizations | * to perform the types of work or services constituting pharmaceutical activities and activities in the field of drug circulation in compliance with the requirements of the legislation of the Russian Federation in the field of health protection | * regulatory and legal documentation regulating the procedure for pharmaceutical activities and activities in the field of drug circulation |
|  | GPC-6 | Able to understand the principles of modern information technologies and use them to solve the tasks of professional activity | GPC-6.1. Applies modern information technologies in the interaction with parties to the circulation of medicinal products taking into account the requirements of information security  GPC-6.2. Performs an effective search for information necessary to solve the tasks of professional activity using legal reference systems and professional pharmaceutical databases  GPC-6.4. Applies automated information systems in the internal processes of the pharmaceutical organization, as well as for interactions with customers and suppliers | * modern information technologies in interaction with the subjects of drug circulation, taking into account information security requirements | * apply modern information technologies for solving professional tasks * search for information, necessary for solving problems of professional activity, using legal reference systems and professional pharmaceutical databases * use automated information systems in the internal processes of a pharmaceutical organization, as well as for interaction with customers and suppliers | * skills in applying modern information technologies to solve professional problems * skills in searching for information, necessary for solving problems of professional activity, using legal reference systems and professional pharmaceutical databases * skills in using automated information systems in internal processes of pharmaceutical organization and for interaction with clients and suppliers |
|  | PC-2 | Able to solve the tasks of professional activity in the implementation of the release and sale of medicines and other products of the pharmacy range through pharmaceutical and medical organizations, incl. with the use of modern technical means and digital technologies | PC-2.1. Conducts pharmaceutical examination of prescriptions and requisition notes, as well as their registration and rating in accordance with the established procedure  PC-2.2. Sells and releases medicines for medical use and other pharmacy assortment products to individuals, as well as releases them to divisions of medical organizations, monitoring compliance with the procedure for the release of medicines for medical use and other pharmacy assortment products  PC-2.3. Performs office work on the management of cash, organizational and administrative, accounting documents for retail sales  PC-2.4. Performs office work on the management of organizational and administrative, payment accounting documents for retail sales  PC-2.5. Carries out pre-sale preparation, organizes and carries out the display of medicines and pharmacy assortment goods in the sales hall and (or) showcases of departments of the pharmacy organization  PC-2.6. Uses modern technical means and digital technologies to solve the tasks of professional activity in the implementation of the release and sale of medicines and other products of the pharmacy assortment through pharmaceutical and medical organizations | * rules of pharmaceutical expertise of prescriptions and claims of medical and other organizations * procedure for dispensing pharmaceuticals and other pharmaceutical products from the pharmacy to the public, medical and other organizations * maintenance of accounting records by pharmaceutical enterprises of wholesale and retail levels * methods of preparing reports for internal and external users of accounting information * basics of record keeping in pharmaceutical organizations * techniques for generating external (accounting, statistical, tax) reporting for pharmaceutical organizations * the procedure for pre-sale preparation, organization and lay-out of medicines and pharmacy goods in the sales area and/or in the shop windows of the pharmacy departments * basics of organizing pharmaceutical care (outpatient and inpatient) to different groups of population * basics of drug supply organization for outpatients and inpatients with medicines and other pharmaceutical products at full cost, as well as for citizens eligible for social assistance * basics of organizing the procurement of medical equipment for state and municipal needs * modern technical means and digital technologies used in professional activities by pharmaceutical specialists at all stages of drug circulation | * carry out pharmaceutical expertise of prescriptions and requirements of medical and other organizations * sell pharmaceuticals and other pharmaceutical products * prepare organizational and administrative documentation in accordance with state standards * choose accounting methods and prepare documents on accounting policies * draw up standard documentation for manufacturing, storage, registration and delivery of medicines and other pharmaceutical products from pharmacy organizations * use merchandising principles and methods of sales promotion of pharmacy goods * use in practice the methods and techniques of marketing analysis in the system of drug supply to the population, medical and other organizations * provide the population entitled to state social assistance * use modern technical means and digital technologies, used in professional activities by pharmaceutical professionals at all stages of circulation of medicines | * methods, techniques of organizing work in the main links of the distribution system of the pharmaceutical market, the organization of pharmaceutical activities * normative-legal documentation regulating the procedure of work of the pharmacy organization for receipt of prescriptions and requirements of medical and other organizations * regulatory and legal documentation governing the work of pharmacy organizations on release of drugs and other pharmaceutical products to the public, medical and other organizations * regulatory, reference and scientific literature for solving professional problems * skills of pharmaceutical expertise of prescriptions and claims of medical and other organizations, dispensing drugs and other pharmaceutical goods on prescriptions and claims * skills in preparing reports for internal and external users of accounting information * skills in administrative record keeping * the skills of using modern technical means and digital technologies, used in professional practice by pharmaceutical specialists at all stages of circulation of medicines |
|  | PC-4 | Able to participate in monitoring the quality, effectiveness and safety of medicines and medicinal plant raw materials | PC-4.4. Informs in accordance with the procedure established by law about the non-compliance of the medicinal product for medical use with the established requirements or about the non-compliance of the data on the effectiveness and safety of the medicinal product with the data on the medicinal product contained in the instructions for its use | * legislative basis for the procedure for determining the non-compliance of a medicinal product for medical use with the established requirements or non-compliance of the data on the effectiveness and safety of a medicinal product with the data on the medicinal product contained in the instructions for its use | * determine whether a medicinal product for medical use does not comply with established requirements or whether the data on the efficacy and safety of a medicinal product do not comply with the data on the medicinal product contained in the instructions for its use | * skills in determining whether a medicinal product for medical use does not meet established requirements, or whether the data on the efficacy and safety of a medicinal product do not match the data on the medicinal product contained in the instructions for its use |
|  | PC-5 | Able to take part in planning and organizing the resource provision of a pharmaceutical organization | PC-5.1. Determines the economic indicators of inventories of medicines and other pharmacy products  PC-5.2. Selects optimal suppliers and organizes purchasing processes based on the results of market research of suppliers of medicines for medical use and other pharmacy products  PC-5.3. Controls the execution of contracts for the supply of medicines for medical use and other goods of pharmacy assortment  PC-5.4. Conducts acceptance control of incoming medicines and other pharmacy products, checking and issuing accompanying documents in accordance with the established procedure  PC-5.5. Carries out the withdrawal from circulation of medicines and pharmacy assortment goods that have fallen into disrepair, expired, falsified, counterfeit and substandard products  PC-5.6. Performs strict record keeping and storage of medicines in accordance with the established procedure  PC-5.7. Organizes control over the availability and storage conditions of medicines for medical use and other products of the pharmacy assortment | * peculiarities of the pharmacist's work in concluding contracts with enterprises, institutions in accordance with the law * notion of consumer value, consumer properties of drugs and other pharmaceutical goods and the factors affecting them * methods of drug and other pharmaceutical goods assortment analysis * requirements for labeling, packaging and storage of drugs and other pharmaceutical products * basics of team management * work organization of average pharmaceutical and auxiliary personnel in pharmaceutical companies * basic principles of state regulation and pricing process of pharmaceutical goods on all stages of the movement of goods * methods of determining the needs and demand for different groups of drugs and other pharmaceutical products * technology for storing drugs and other pharmaceutical products * organization of manufacturing of extemporaneous dosage forms on the recipes and requirements of medical and other organizations * basic accounting principles of inventory, cash and settlements * principles and rules for settlements with personnel * basic forms of cashless payments for goods and services * taxation system in pharmaceutical companies * methods of financial analysis of the main indicators of pharmaceutical organizations activities * principles of audit and management of business processes in pharmaceutical organizations * principles of developing a business plan for pharmaceutical organizations * methods of recruitment, placement and accounting of personnel movement | * determine the demand and need for various groups of pharmaceutical products * analyze the state of inventory and identify sources of financing * select a supplier, conclude supply contracts and prepare documentation in claim form * place purchase orders * establish prices for pharmaceutical products at all stages of the commodity circulation, including intra-pharmacy manufacturing * provide the necessary conditions for storage of drugs and other pharmaceutical products during transportation and in the institutions of the distribution network * account for cash flow in the cash register of the pharmacy and on the current account * take inventory of inventory, cash and settlements * to conduct accounting of business transactions * to analyze the financial and economic situation of the pharmacy and develop measures to improve the efficiency of pharmaceutical organizations * to forecast the economic performance of pharmaceutical organizations and their subdivisions * to carry out certification of workplaces, instructions on health and safety of pharmaceutical workers and auxiliary personnel, measures to prevent environmental violations and violations of health and safety * determine the cost of finished drugs and pharmaceutical forms of extemporaneous manufacturing * record prescriptions in the relevant documentation * perform quantity and object accounting of drugs and other pharmaceutical products in pharmaceutical institutions * to manage the staff of pharmaceutical organizations, to implement an effective personnel policy with the use of motivational guidelines * to manage the social and psychological processes, prevent conflict situations in the team and in interaction with consumers of pharmaceutical goods and services | * methods of financial and economic analysis, analysis of the main indicators of pharmacy activities * skills in analyzing the state of property and liabilities of a pharmacy * skills of assessing the degree of entrepreneurial risk * skills of segmentation of the pharmaceutical market and selecting target segments * methods of studying demand, forming an assortment and forecasting demand for drugs and other pharmaceutical goods * how to formulate prices for drugs and other pharmaceutical products * methods of personnel management in pharmaceutical organizations, compliance with labor safety rules and safety and labor legislation, ensuring safe working conditions for staff * skills in developing accounting policies, accounting of inventories: cash and settlements |
|  | PC-8 | Able to solve the tasks of professional activity within the framework of pharmaceutical activity in the field of circulation of medicines for veterinary use | PC-8.1. Participates in the selection of optimal suppliers and purchasing processes, taking into account previously conducted market research of medicines for veterinary  applications  PC-8.2. Sells and releases medicinal products for veterinary use to individuals, as well as veterinary clinics following the appropriate procedure for release  PC-8.3. Carries out preparation for the sale of veterinary medicines, carrying out their display in the sales hall and showcases of veterinary pharmacies and veterinary departments  PC-8.4. Informs individuals and employees of the veterinary service about veterinary medicines: their rational use, possible side effects, providing at the same time, the necessary consulting assistance  PC-8.5. Performs the necessary intrapharmacy control of the conditions and terms of storage of medicines for veterinary use | * the legislative basis for the selection of optimal suppliers and procurement processes, taking into account the previously conducted studies of the market of drugs for veterinary use * the legislative basis for the sale and dispensing of veterinary drugs to individuals and veterinary clinics by following the proper dispensing procedure * the legislative basis for the preparation for the sale of veterinary drugs, carrying out their deposition in the sales area and in showcases of veterinary pharmacies and veterinary departments * the legislative basis for informing individuals and veterinary staff about drugs for veterinary use: their rational use, possible side effects, providing the necessary advice * the legislative basis for the necessary intra-pharmacy control of the conditions and terms of storage of medicines for veterinary use | * select the best suppliers and procurement processes taking into account the previously conducted studies of the veterinary drugs market * sale and dispensing of veterinary drugs to individuals and veterinary clinics by following the proper dispensing procedure * preparing for the sale of veterinary drugs by laying them out in the sales area and in showcases of veterinary drugstores and veterinary departments * informing individuals and veterinary staff about veterinary medicines: their rational use, possible side effects, providing the necessary advice * exercise the necessary intrapharmacy control of the conditions and terms of storage of veterinary drugs | * skills in selecting the best suppliers and procurement processes taking into account the previously conducted market research of medicines for veterinary use * skills in selling and dispensing veterinary drugs to individuals and veterinary clinics by following the proper dispensing procedure * the skills of preparing veterinary drugs for sale by laying them out in the sales area and in showcases of veterinary drugstores and veterinary departments * the skills of informing individuals and veterinary staff about veterinary medicines: their rational use, possible side effects and providing necessary advice * the skills of carrying out the necessary intra-pharmacy control of the conditions and terms of storage of veterinary medicines |
|  | PC-9 | Able to solve tasks of professional  activities in the transfer of medicines through pharmaceutical and medical organizations | PC-9.1. Sells and releases medicines for medical use through pharmaceutical and medical organizations following the required procedure of release and transfer  PC-9.2. Performs pharmaceutical information and consulting during the sale, release and transfer of medicines for medical use  PC-9.3. Conducts pharmaceutical examination of documents, as well as their registration and rating in accordance with the established procedure during the release, sale and transfer of medicines for medical use through pharmaceutical and medical organizations | * basics of organizing pharmaceutical care (outpatient and inpatient) to different groups of population * basics of the organization of drug supply for outpatients and inpatients with medicines and other pharmaceutical products at full cost, as well as citizens who are eligible for social assistance * basics of the organization of procurement of medical supplies for state and municipal needs * rules for pharmaceutical reviews of prescriptions and claims by medical and other organizations * legislative basis for informational and advisory assistance to pharmaceutical organization visitors in the choice of drugs and other pharmacy assortment products, as well as informing medical professionals about drugs, their synonyms and analogues, possible side effects and interactions | * basics of organizing pharmaceutical care (outpatient and inpatient) to different groups of population * basics of the organization of drug supply for outpatients and inpatients with medicines and other pharmaceutical products at full cost, as well as citizens who are eligible for social assistance * basics of the organization of procurement of medical supplies for state and municipal needs * rules for pharmaceutical reviews of prescriptions and claims by medical and other organizations * legislative basis for informational and advisory assistance to pharmaceutical organization visitors in the choice of drugs and other pharmacy assortment products, as well as informing medical professionals about drugs, their synonyms and analogues, possible side effects and interactions | * methods, techniques of organizing work in the main links of the pharmaceutical market distribution system, organization of pharmaceutical activities * skills of pharmaceutical expertise of prescriptions and requirements of medical and other organizations, dispensing medicines and other pharmaceutical products according to prescriptions and requirements * skills of information and consulting assistance to visitors of pharmaceutical organization in the choice of drugs and other pharmacy assortment products, as well as informing medical professionals about drugs, their synonyms and analogues, possible side effects and interactions |
|  | PC-10 | Able to carry out measures to control (supervise) the activities of legal entities and individuals licensed for pharmaceutical activities, to comply with mandatory requirements | PC-10.1. Supervises the activities of legal entities and individuals who have licenses for pharmaceutical activity  PC-10.2. Monitors the procedure established by law regarding the compliance of available medicines for medical use, instructions and data on its safety and effectiveness | * legal, legislative and administrative procedures and strategies concerning all aspects of pharmaceutical activities * the structure of the modern health care system of the Russian Federation, the basics of the legislation of the Russian Federation on the protection of citizens' health, the basic regulatory and legal documents governing relations in the field of drug circulation * procedures and requirements for pharmaceutical activities * legislation norms relating to state control and supervision, as well as responsibility for offenses in the field of pharmaceutical activities * the norms of legislation relating to state regulation of labor relations between pharmaceutical professionals and organizations | * carry out the types of work or services constituting pharmaceutical activities and activities in the field of drug circulation in compliance with the requirements of the legislation of the Russian Federation in the field of health protection | * regulatory and legal documentation regulating the procedure for pharmaceutical activities and activities in the field of drug circulation |

**4.** **Volume of the academic discipline and types of academic work**

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| --- | --- | --- | --- | --- | --- | --- |
| Type of educational work | Labor intensity | | Labor intensity (AH) in semesters | | | |
| volume in credit units (CU) | volume in academic hours (AH) |
| 5 | 6 | 7 | 8 |
| Classroom work, including | 17 | 612 | 66 | 66 | 108 | 108 |
| Lectures (L) | 2,33 | 84 | 14 | 14 | 28 | 28 |
| Laboratory practicum (LP)\* | Laboratory practicums are not stipulated | | | | | |
| Practicals (P) | 7,33 | 264 | 52 | 52 | 80 | 80 |
| Seminars (S) | Seminars are not stipulated | | | | | |
| Student’s individual work (SIW) | 6,33 | 228 | 42 | 42 | 72 | 72 |
| Mid-term assessment |  |  |  | credit | credit |  |
| credit/exam *(specify the type)* |  |  |  |  |  | 36 |
| TOTAL LABOR INTENSITY | 17 | 612 | 108 | 108 | 180 | 216 |

**5.** **Sections of the academic discipline and competencies that are formed when mastering them**

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| --- | --- | --- | --- |
| № | Competence code | Section name  of the discipline | The content of the section in teaching units |
| 1 | UC-2  GPC-3  GPC-6  PC-2  PC-4  PC-5  PC-8  PC-9  PC-10 | Basics of state regulation of drug circulation | State regulation of pharmaceutical activities as an element of the health care system in the Russian Federation  System of state regulation of drug circulation  Basics of state regulation of drugs production  Basics of state regulation of pharmaceutical activities  Standards of good practice in the system of pharmaceutical regulation |
| 2 | UC-2  UC-9  GPC-3  PC-5  PC-8 | Fundamentals of Pharmaceutical Economics | The action of basic economic laws in the pharmaceutical market  Theory of consumer behavior and pharmacy assortment products competitiveness |
| 3 | UC-2  UC-9  GPC-3  PC-5  PC-8 | Accounting and planning procedures in pharmaceutical organizations | Basic concepts of accounting theory. Classification of economic assets of the pharmacy organization.  Elements of the method of accounting. Accounting policy.  Accounting for fixed assets and intangible assets.  Accounting for inventories: materials, low-value and quickly-moving items, auxiliary materials, containers, medicinal plant raw materials, finished products and goods.  Accounting for cash and settlements.  Accounting for payments to personnel.  Inventory of inventory, cash and settlements in the pharmacy.  Accounting reports.  Analysis of the results of financial and economic activity.  Tax accounting in a pharmacy organization.  Pharmaceutical organization's commodity policy.  Pricing policy of pharmaceutical organization.  Fundamentals of planning economic indicators. Planning of goods turnover.  Planning resources of goods.  Planning costs of circulation  Revenue and profit planning |
| 4 | UC-2  GPC-3  GPC-6  PC-2  PC-4  PC-5  PC-8  PC-9  PC-10 | The procedure for circulation of drugs in wholesale and retail pharmaceutical organizations | General principles of the organization of acceptance and storage of goods in a pharmaceutical organization.  General principles of the organization of acceptance and storage of goods in the pharmaceutical organization.  Organization and implementation of pharmaceutical information and counseling.  Organization of the production function of the pharmacy. In-pharmacy quality control.  Sanitary and hygienic requirements in the activities of pharmaceutical organizations.  Quality management system in pharmaceutical organization.  State regulation of the circulation of controlled groups of drugs. State policy of the Russian Federation in the field of circulation of narcotic drugs and psychotropic substances.  Features of the circulation of medical devices, dietary supplements and other pharmacy assortment products.  The procedure for destroying medicines and other pharmacy assortment products. |