## **Summary to the work program of the discipline**

"PROJECT MANAGEMENT IN PHARMACY"

the main educational program of training in the specialty 33.05.01 PHARMACY

**1. Goals and objectives of mastering the discipline Project management in pharmacy** (hereinafter - discipline).

**1.1. The purpose of mastering the discipline**: - participation in the formation

universal competencies UС 1 (1.1-1.4), UС 2, UС 4 (4.1)

**1.2. Tasks of the discipline**

1. Formation of project management skills in students
2. The formation of students' skills to formulate a project task on the basis of the problem posed and choose ways to solve it through the implementation of project management.

**1.3. Requirements for the results of mastering the discipline**

as a result of mastering the discipline, the student must:

**Know***:*

* ways to analyze a problem situation as a system, ways to identify its components and relationships between them
* ways to analyze the information necessary to solve a problem situation, to identify its insufficiency, ways to eliminate them
* methods for assessing the reliability of information sources, methods for analyzing and synthesizing conflicting information from different sources
* ways to solve a problem situation based on systematic and interdisciplinary approaches to create a unified strategy
* essence, goals and objectives of the organization of project management;
* features, main methodological and methodological approaches to project management;
* regulatory framework and project management standards;
* differences between functional and project management;
* project management methodology
* project resources and how to plan them;
* functional areas of project management and key points of application of managerial influence at various stages of the project
* project planning tools
* ways of effective interpersonal interaction and information exchange
* modern communication technologies

**Be able to**:

* analyze the problem situation as a system, identifying its components and the links between them
* identify gaps in the information needed to solve a problem situation, and design processes to address them.
* critically evaluate the reliability of sources of information, works with conflicting information from different sources
* develop and substantiate a strategy for solving a problem situation based on systematic and interdisciplinary approaches
* to formulate, on the basis of the problem posed, the project task and the way to solve it through the implementation of project management
* develop the concept of the project within the framework of the identified problem: formulates the goal, objectives, justifies the relevance, significance, expected results and possible areas of their application
* plan the necessary resources, including taking into account their replaceability
* develop a project implementation plan using planning tools
* monitor the progress of the project, correct deviations, make additional changes to the project implementation plan, clarify the areas of responsibility of the project participants
* establish and develop professional contacts in accordance with the needs of joint activities, including the exchange of information and the development of a unified interaction strategy
* implement effective interpersonal communications

**Own**:

* ways to analyze a problem situation as a system, ways to identify its components and the links between them
* ways of analyzing the information necessary to solve a problem situation, to identify its insufficiency, ways to eliminate them
* methods for assessing the reliability of information sources, methods for analyzing and synthesizing conflicting information from different sources
* ways to solve a problem situation based on systematic and interdisciplinary approaches to create a unified strategy using project terminology
* ways of setting a project task and ways to solve it through project management
* project resource planning
* project goal setting
* planning tools
* monitoring the progress of the project, to make changes in case of deviation from the goal
* apply modern communication technologies, including in foreign language(s), for academic and professional interaction

**2. Volume of discipline and types of educational work**

|  |  |  |
| --- | --- | --- |
| Type of study work | Labor intensity | Labor input by semesters (ACh) |
| volume in credit units (CU) | volume in academic hours (AH) |
| 9 |
| classroom work, including | 0.6 | 22 | 22 |
| Lectures (L) | 0.2 | 6 | 6 |
| Laboratory workshops (LW) | not provided |
| Practical exercises (PE) | 0.4 | 16 | 16 |
| Seminars (S) | not provided |
| Independent work of the student (IWS) | 0.4 | 14 | 14 |
| Intermediate certification: credit |  |  |  |
| TOTAL LABOR CAPACITY | 1 | 36 | 36 |

**3. The content of the discipline**

|  |  |  |
| --- | --- | --- |
| *No.* | *Section name* | *Section content* |
| 1. | Theoretical foundations of project management. | Theoretical foundations of project management.* Concept of project, program and portfolio. Criteria for the formation of programs and project portfolios.
* The main features of the project. The difference between a project and a process.
* Prerequisites for the emergence of project activities in the organization.
* Purpose and results of the project. Project restrictions.
* External and internal environment of the project, their elements and role. Factors of direct and indirect impact in the environment of the project.
* Typical problems and causes of failures in the implementation of projects in the organization.
* Content and types of projects.
* The content of project management.
* The place and role of project management in the organization's management system.

Functions, tasks and principles of project management. |
| 2. | Modern project management standards | Modern project management standards* The essence of standards. The purpose of creating standards. Types of standards.
* Foreign standards in the organization of project activities: PMI PMBOK, ISO standards, IPMA ICB,
* PRINCE2, PMAJ P2M, GAPPS, The APM Body of Knowledge, Microsoft Solutions Framework and Microsoft methodologies
* Operations Framework, NASA Project Management and Systems Engineering Competency Framework, etc.
* National standards for project activities in various countries.
* Project Management Body of Knowledge (PMBOK). Basic concepts of the PMI methodology: project management processes and areas of knowledge. Functional areas of project activity on the example of the PMI methodology: content management, integration, timing, cost, quality, human resources, communications, risks and project deliveries. Problems and limitations of the application of the PMI methodology in the practice of project activities.
* The main prerequisites for the development of project management methodology in Russia. Russian standards of project activity.

GOST R 54869 2011 “Project management. Project management requirements.GOST R 4870 2011 “Project management. Requirements for project portfolio management»GOST R 54871?2011 “?Project management. Program management requirements.Features of Russian standards of project activity in comparison with foreign standards.Internal standards of project activities at the enterprise: policy (concept) of project activities at the enterprise, job descriptions of the main participants in project activities, etc. |
| 3. | System for organizing project activities. Project team. Project office. | System for organizing project activities. Project team. Project office.* Stakeholders of the project. Project team.
* Features and objectives of managing project-oriented activities in various departments and
* different levels of management in the organization. The role and tasks of top management, functional managers,
* project managers and participants.
* Project management in the organizational structure of the enterprise. The concept of the organizational structure of the project.
* Typical types of organizational structures of the project. Functional structure of the project. Matrix structure
* project. Project management structure. Choice of project management structure.

Project office: concept, types, purpose. Formation of the project office. |
| 4. | Processes and phases of project management | Processes and phases of project management* Project life cycle. Criteria for the allocation of phases and stages of projects.
* Project Management Process Group: Initiation Process Group; planning process group; group
* execution processes; monitoring and control process group; termination process group. Separation
* project into phases. Development of the concept of the project. Project viability assessment. Project planning.
* Budget. Project order. Definition of control points. Sketch design. contract phase.
* Project documentation. Project charter template and operating standards templates:
* organizational and administrative documents (order to open the project, regulations on the working group);

normative and methodological documents (project charter, calendar resource plan of the project, summary reports on projects, etc.); commercial documents (contract, completion certificate, etc.), technical documentation. |
| 5. | Project resource planning. | Project resource planning.* Planning the subject area of ​​the project. Project time planning. Project workforce planning. Project cost planning. Project risk planning.
* Structuring project activities. Decomposition of project work, the concept of a hierarchical structure of work, a work package, operations. Milestones as control points of project activities.
* Fundamental postulates of graph theory. Network models as a kind of graphs. Goals and objectives of network modeling. Structural elements of network diagrams. Various Network Diagram Notations
* business processes. General algorithm for network modeling.
* Evolution of network models. Modified Gantt strip charts.
* Deterministic models of network modeling. Critical Path Method (CPM): history of appearance, scope, algorithm of use. The main disadvantages and limitations of the application of the CPM method.
* Potential Measures Method (MPM): usage algorithm, main differences from CPM.
* Program Evaluation and Review Technique (PERT): algorithm of application, problems of using the method.
* Balance line method (LOB).
* Stochastic models of network planning. Graphical Assessment and Review Technology (GERT) as an example of a probabilistic approach to network planning. The main difficulties in the application of stochastic network models.
* Agile as flexible iterative-incremental project management methods. Model Kenevin. Agile manifest.
* A structured, flexible Scrum framework from the Agile family. Key roles in project activities for

Scrum (Scrum Master, Product Owner, Team). The most important concepts and stages of project management according to Scrum. |
| 6. | Project cost and risk management | Project cost and risk management* Definition of work packages for the project and their cost estimate. Evaluation of time and all kinds
* resources. Rationing of labor costs in design organizations. time management. The controllability problem
* project.
* Key performance indicators of the project: NPV, IRR/MIRR, PBP. The concept of the time value of money.
* The need for discounting project cash flows.
* Choice of project discount rate. Discount rate calculation methods: aggregated calculation method,
* cumulative calculation method, WACC model.
* Simple methods for assessing the effectiveness of the project. Discounted methods for evaluating the effectiveness of the project.
* Essence of project risks. Types and groups of project risks. Project risk analysis methods. Systematization and
* certification of project risks. Building a project risk matrix. Development of risk minimization strategy
* project.

The concept of project sustainability. Project sensitivity analysis. |
| 7. | Corporate project management system | Corporate project management system.* The concept of a corporate project management system (CPMS). Key characteristics of KSUP. Appointment, structure and composition of KSUP. KSUP models. The main functional blocks of KSUP. Project for the implementation of CPMS.

Project management software tools: the purpose of systems, the principles of structuring and presenting information, views and tables, project models, the sequence of steps in working with a scheduling system. |
| 8. | Project activities of the State Budgetary Educational Institution of Higher Education "PIMU" of the Ministry of Health of Russia | Project activities of the State Budgetary Educational Institution of Higher Education "PIMU" of the Ministry of Health of Russia |