МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ ХАРКІВСЬКИЙ НАЦІОНАЛЬНИЙ ЕКОНОМІЧНИЙ УНІВЕРСИТЕТ ІМЕНІ СЕМЕНА КУЗНЕЦЯ

ЗАТВЕРДЖЕНО

на засіданні кафедри державного управління, публічного адміністрування та економічної політики Протокол № 1 від 25.08.2023 р.

ПОГОДЖЕНО проректор з навчально-методичної роботи

Каріна НЕМАШКАЛО

МЕТОДОЛОГІЯ УПРАВЛІННЯ ПРОЕКТАМИ В ПУБЛІЧНОМУ АДМІНІСТРУВАННІ

робоча програма навчальної дисципліни (РПНД)

Галузь знань Спеціальність Освітній рівень Освітня програма 28 "Публічне управління та адміністрування" 281 "Публічне управління та адміністрування" третій (освітньо-науковий) "Публічне управління та адміністрування"

Статус дисципліни

Мова викладання, навчання та оцінювання

вибіркова англійська

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Харків 2023

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE SIMON KUZNETS KHARKIV NATIONAL UNIVERSITY OF ECONOMICS

APPROVED

at the meeting of the department of public administration and economic policy
Protocol № 1 of 25.08.2023

Vice-rector for educational and methodical work

Karina NEMASHKALO

PROJECT MANAGEMENT METHODOLOGY IN PUBLIC ADMINISTRATION

Program of the course

Field of knowledge

Specialty Study cycle

Study programme

28 «Public management and administration»

281 «Public management and administration»

the third (educational and scientific)

«Public management and administration»

Course status

Language

elective

English

Developer:

PhD (Economics),

Associate Professor

Head of Department of public administration and

economic policy

Head of Study Programme

Viktoriia MELNYK

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Kharkiv 2023

INTRODUCTION

The current stage of reforming the Ukrainian economy requires the creation at all levels of fundamentally new effective management systems for the development of the state, regions, cities, and economic sectors. The formation of a cadre of managers of a new generation, consisting of highly educated and highly qualified specially trained specialists, democratic mechanisms for the appointment of managerial personnel and their promotion in the personnel hierarchy of management systems, is a fundamental prerequisite for the positive implementation of the tasks that have arisen in Ukraine today.

The basic tool for managing changes in the economy are programs and projects. Each program is a set of interconnected projects that ensure the achievement of a large-scale goal. Researching the process and regulating changes carried out according to pre-developed rules within the budget and time constraints are the essence of project management.

The potential for increasing the effectiveness of the implementation of national projects and programs should be the state project management system, which provides for a multifaceted and edited methodology for launching and managing projects; a unified understanding of the responsibilities and powers of project activity participants; allows you to create a single picture of projects, end-to-end reporting on them, etc. Professional application of project management tools, methods, and technologies will allow government agencies to ensure the effectiveness of project activities on a national scale, reduce costs, and complete the project on time.

The purpose of the course is to form a system of competencies regarding the use of project management methods and tools in the practice of public administration.

The tasks of the course are:

- mastering the theoretical foundations of project management;
- study and use of the main project management tools in the practice of public administration.

The object of study of the course is the process of project management in public administration.

The subject of the course is the principles, methods and tools of project management in public administration.

The learning outcomes and competencies formed by the course are defined in table 1.

Learning outcomes	Competencies
LO1	GC4, GC5, GC6, SC5, SC6, SC12
LO2	GC4, GC5, GC6, SC5, SC6, SC12
LO3	GC4, GC5, GC6, SC5, SC6, SC12
LO6	GC4, GC5, GC6, SC5, SC6, SC12
LO8	GC4, GC5, GC6, SC5, SC6, SC12
LO10	GC4, GC5, GC6, SC5, SC6, SC12
LO11	GC4, GC5, GC6, SC5, SC6, SC12

- where, GC4. The ability to rethink the existing and create new holistic knowledge in the professional field and to solve complex social, scientific, cultural, ethical and other problems.
- GC5. Ability to initiate research and innovation projects and work autonomously during their implementation.
 - GC6. Ability to establish scientific interaction, cooperation.
- SC5. The ability to determine, scientifically substantiate and critically evaluate the strategic directions of territorial development at the national, regional and local levels.
- SC6. Ability to initiate, organize and manage innovative projects at different levels of public management and administration.
- SC12. Ability to develop scientifically based recommendations for improving public management and administration.
- LO1. To know scientific concepts (theories), terminology, the history of development and the current state of scientific knowledge, to identify theoretical and practical problems in public management and administration.
- LO2. Know and adhere to the basic principles of academic integrity in scientific and educational (pedagogical) activities.
- LO3. To know and be able to apply general and special methods of scientific knowledge, laws, regularities and management principles to solve problems of public management and administration.
- LO6. To be able to determine, evaluate and substantiate the priority areas of sustainable development at different levels of public management and administration.
- LO8. Be able to prepare project requests for financing scientific research, develop program documents (strategies, programs, concepts) based on the analysis of foreign experience, assessment of legal and resource support and selection of adequate mechanisms for the development of public management and administration.
- LO10. Be able to adapt and apply modern models/approaches to management and administration, as well as international experience in the design and reorganization of organizational management structures at various levels of public management and administration.
- LO11. To be able to obtain scientific and applied results that contribute to the solution of modern problems in the strategic development of territories at the national, regional and local levels.

COURSE CONTENT

Content module 1. Theoretical foundations of project management

Topic 1. General characteristics of project management.

1.1. The essence of project activity.

The essence of project activity. Specific features of the project. Classification of projects.

1.2. Project management as a specific branch of management.

Evolution of project management. Triple constraint in project management. The main tasks of project management.

1.3. Goals and processes in project management.

The main goals of project management. Approaches to project management. A classic approach. Functions of management according to the classical approach. Project management as a cycle of problem solving. Phases of the project management life cycle.

Topic 2. Methodological foundations of project planning and control.

2.1. The place and functions of planning and control in project management.

The concept of project planning. The main tasks of project planning and control. Reasons causing difficulties in planning and control processes.

2.2. Types of plans.

Types of plans: conceptual, strategic, tactical (current and operational). Stages of project planning.

2.3. An integrated approach to management, planning and control.

Modern trends in project planning and control. An integrated approach. Integration of calendar planning, resources and costs. Integration of planning and control. Integration with the organization (organizational structures, divisions). Integration of all project information systems. Integration with the personnel management system.

Topic 3. Basic forms of organizational structure of projects.

3.1. The basic principles of creating an organizational structure of the project.

Creation of the organizational structure of the project. Ways of forming a project group: functional and target.

3.2. Basic forms of project structures.

Forms of external organizational structures. The main forms of the internal structure. Project team. Matrix form of project organization. Functional matrix. Balance matrix. Project matrix. Contract matrix. Hybrid organizational structure of the project. Structure of modular communication. Advantages and problems of the matrix structure. Internal organizational structures in large projects.

Topic 4. Project structuring.

4.1. The essence and functions of project structuring.

Project structuring. Project work structure (Work Breakdown Structure - WBS). Organizational structure of the project (Organization Breakdown Structure - OBS). Project cost structure (Cost Breakdown Structure - CBS).

4.2. One-way structuring – creation of the working structure of the project.

WBS - project work structure. Basic principles of WBS application. The main stages of WBS development. Principles of formation of WBS levels: by products or subprojects; by phases of the project; by the place of performance of works; by cost centers. Structure of the work package.

4.3. Two-way structuring and coding of the project.

Two-way structuring. Organizational structure of the project (OBS). Types of structural units of the project depending on its size. Cost accounting. Coding system. WBS coding. OBS coding. WBS dictionary or CTR catalog.

4.4. Three-way structure of the project.

Three-way structure of the project. Cost Breakdown Structure (CBS). CBS creation algorithm.

Topic 5. Network and calendar planning of the project.

5.1. General characteristics and types of grid graphs.

Grid and calendar planning: their role and advantages. The essence of grid planning. Grid graph. Work (operation). Logical connections between operations. Arrow graphs. Progress graphs. Duration of work. Calendar of project works.

5.2. Precedence graphs: order of construction and indicators.

The main steps of constructing and calculating parameters of a grid graph. Determination of the list and sequence of works. Graphical construction of a grid graph. Determining the duration of works. Determining the early dates of the start and end of project works by "direct passage". Determination of late dates for the start and completion of works by "reverse passage". Determination of the critical path and time reserve for works.

5.3. Features of arrow graphs.

Placement of parameters on the arrow graph. Fictitious works. The method of calculating the parameters of the arrow graph.

5.4. Methods of reducing the duration of the project.

Grid graph optimization. Methods of reducing the duration of work. Determination of possible directions and consequences of reducing the duration of project works. Algorithm for reducing the duration of work according to the project.

5.5. Calendar planning of projects.

Determination of calendar dates for the performance of all works. Calendar schedule. Objectives of the calendar schedule. Types of calendar graphs: tabular, diagrammatic. Gantt chart.

Topic 6. Planning of resources, costs and project budget.

6.1. Assessment and planning of resources.

Concept of resources in the project. Assessment of the volume of necessary resources. Determining the need for human resources.

6.2. Construction of resource histograms.

Calendar and volumes of available resources. Resource demand histogram. Calendar schedule of the need for the resource. Resource demand diagram. Excess resources.

6.3. Modeling and calendar planning of resources.

Smoothing resource histograms. Determination of sources of information about resources. Setting priorities in the allocation of resources. Allocation of resources after prioritization. Basic methods of resource allocation: serial and parallel. Planning in conditions of limited resources. Planning under limited time.

6.4. Cost planning.

The main goals of cost planning: the need for control; determination of project viability; obtaining financing; allocation of resources; estimation of duration of works; preparation of tenders. Calculation. Conceptual assessment. Feasibility assessment. Final assessment. Types of project costs: direct, indirect (overhead), constant, variable. Cost structure: labor costs, material costs, cost of equipment, costs for maintenance and operation of equipment and premises, subcontracts, management costs, overhead and management costs, payments and taxes. Preparation of estimates for works. Cost estimation methods. Calculation of costs taking into account inflation. Calendar expenditure planning. Banana-shaped curve of the distribution of the project budget over time.

Topic 7. Personnel management in projects.

7.1. Leadership. The role of the project manager.

Concept of leadership. The role of the project manager. The main goal of project personnel management. Main areas of personnel management in projects. Leadership of the project manager. Criteria for an effective project manager. The most important traits for project managers.

7.2. Project team.

Concept of project team. Team and group work development. Advantages of group work. The goals of creating a project team. The main organizational tasks of building a project team. Stages of creating a team. Evaluation of team performance.

7.3. Staff motivation.

The concept of motivation. Modern theories of motivation. An effective model of staff motivation in projects.

Content module 2. Project management in public administration

Topic 8. Project management as a means of public policy implementation. 8.1. Public policy in project format: definitions and tools.

Concept of public policy. Public sector. Purpose of public policy. The relationship between public policy, strategic planning and project management.

Triangle of actors of public policy. The model of the problem field during the formulation of the public policy problem. The process of putting the problem on the government agenda. Causality model. Concept of project and program in the public sphere.

8.2. The essence of project management in the public sphere.

Main characteristics of the project. Types of projects in the public sphere. Project cycle management methodology adopted by the European Commission.

Topic 9. Project cycle management.

9.1. Theoretical foundations of project cycle management.

The essence of project cycle management. Typical problems encountered in the process of developing projects and programs. Advantages of using the project cycle management methodology. Basic principles of project cycle management methodology.

9.2. Characteristics of the main stages of the project cycle.

The main stages of the project cycle: programming, identification, formulation, financing, implementation, monitoring and evaluation.

Topic 10. Tools of the project cycle.

10.1. Principles of ensuring the quality of the project cycle.

Basic principles of ensuring the quality of the project cycle. The principle of relevance (relevance). The principle of feasibility. The principle of project sustainability.

10.2. An integrated approach to project cycle management.

The essence of an integrated approach to project cycle management. Consistency of goals and logical structure of the project. Coordination of the work plan with resources and expenses in terms of results. Coordination of the work plan with the organizational structure of the project executor. Coordination of the work plan and monitoring. Unification and coordination of all information systems of the project. General integration with the personnel management system.

10.3. A logical and structural approach to project cycle management.

The essence of the logical-structural approach to project cycle management. Phases of the logical-structural approach: analysis and planning. Characteristics of the stages of the analysis phase: participant analysis, problem analysis, goal analysis, and strategy analysis. The main stages of the planning phase: logical project structuring, activity planning, resource planning.

10.4. Logical-structural matrix.

Model of the logical-structural matrix. Terminology used in the logical-structural matrix.

Topic 11. Project implementation control.

11.1. Project planning and control model.

Relationship between project planning and control. Project planning and control model, its elements. Project Definition: Creating a WBS. WBS estimation system.

Planning: organizations; systems; coding; CTR catalog; calendar, resource and cost plans. Execution and control: collection of information; analysis; rating; reporting; decision making and execution. Change control system.

11.2. Methods of project implementation analysis.

Analysis of the progress of the project. Analysis of deviations. Adjusted budget method. Determination of project performance indicators using S-shaped curves.

11.3. Forecasting of final costs.

Methods of forecasting final costs: based on the average index for all works on a certain date; based on the average index by subdivision; based on the average WBS element index on a given date.

11.4. Reporting and change control.

Principles of building a reporting system. Control over changes in the project. Changes in the design or scope of the project at the development stage. Later changes in the design. Changes as required by safety or legislation. Changes to increase profitability and financial return from the project. Changes are a significant area of conflict. Tasks solved by the change control system.

Topic 12. Risk management in projects.

12.1. Concept of risk and uncertainty. Classification of project risks.

Factors affecting decision-making processes in project management. The essence of risk management. Risk in project management. Two types of risk associated with project preparation and implementation: systematic and unsystematic. Composition of systematic and unsystematic risks. Classification of risks by duration of action; by the degree of influence on the financial condition; according to the possibility of elimination; by the measure of influence on the change of real assets.

12.2. Causes and consequences of project risks.

Causes of project risks. Staged (phased) assessment of risks. Types of risks arising at different stages of the project life cycle. Causes, signs and consequences of various functional project risks. Technical risks. Political risks. Marketing risks. Financial risks.

12.3. Methods of analysis and risk assessment of investment projects.

Purpose of risk analysis. Types of risk analysis: qualitative; quantitative. Expert risk analysis. Expert risk assessment procedure. The "decision tree" method. Sensitivity analysis method. Method of scenarios. Monte Carlo method.

12.4. Project risk management.

Risk reduction methods: risk distribution among project participants (transferring part of the risk to co-executors); reserving funds to cover unforeseen costs; reduction of financing risks; insurance. Reserving funds to cover unforeseen expenses. Reactions to changes in project implementation conditions are possible.

Topic 13. Project quality management.

13.1. The concept of quality in the context of project management.

Quality in the context of the project. Key aspects of quality. The quality of the project product as compliance with market needs and expectations of consumers.

Quality of project development and planning. The quality of execution of works according to the project in accordance with the planning documentation. The quality of the resources involved in the implementation of the project. Compliance with project goals. Compliance with consumer requirements. The quality of the project product, the elements that provide it. Clear specification. Use of certain standards and experience. Recruitment of qualified personnel. Audits.

13.2. Project quality management system.

Basic principles on which modern project quality management is based. The main components of project quality management. The structure of the project quality management system. Project quality planning. Quality policy. Project quality plan (or project quality assurance program). Quality management system. Project quality assurance. Results of control of quality indicators. Quality audit. Measures to improve quality. Project quality control. Methods and means of project quality control: inspection (verification); control charts (control cards); Pareto charts; statistical methods; flow charts; trend analysis. Organizational support of project quality management.

13.3. Project quality assurance costs.

Costs to prevent quality problems. Costs for evaluation and quality control. Internal losses due to poor quality. External losses due to poor quality.

The list of practical (seminar) studies in the course is given in table 2.

Table 2

List of practical (seminar) studies

Name of the topic and / or task	Content	
Topic 1. Practical task 1	Practical task "Place and role of the discipline "Methodology	
	of project management in public administration" in the system	
	of educational disciplines"	
Topic 2. Practical task 2	Case "Determining the main persons participating in the	
	project"	
Topic 3. Practical task 3	Case "Analysis of problems and construction of the project's	
	"problem tree". Defining project goals and building a "goals	
	tree"	
Topic 4. Practical task 4,	Practical task "Identification of the project. Development of the	
Practical task 5	logical and structural matrix of the project"/ Practical task	
	"Project structuring. Development of the working,	
	organizational and cost structure of the project"	
Topic 5. Practical task 6	Practical task "Development of project work schedule"	
Topic 6. Practical task 7	ical task 7 Practical task "Planning of project resources and expenses.	
	Development of the project budget"	
Topic 7. Practical task 8,	Practical task "Development of project responsibility matrix".	
Practical task 9	Practical task "Analysis of the problems of forming a project	
	team"	
Topic 8. Practical (seminar)	Seminar session on the topic: "Project management as a means	
lesson 1	of implementing public policy"	

Topic 9. Practical task 10	Practical task "Formulation of the project idea and description of the project in the public sphere"
Topic 10. Practical task 11	Practical task "Using project cycle tools when developing a project in the public sphere"
Topic 11. Practical task 12	Practical task "Control of project implementation in the public sphere"
Topic 12. Practical task 13	Practical task "Project risk management in the public sphere"
Topic 13. Practical task 14	Practical task "Self-assessment of project quality assurance in the public sphere"

The list of self-studies in the course is given in table 3.

Table 3
List of self-studies

Name of the topic and / or task	Content
Topic 1 - 13	Study of lecture material and review of literary sources on a given topic
Topic 1 - 13	Preparation for practical (seminar) classes
Topic 2, 7	Preparation of presentations
Topic 8	Essay writing
Topic 1 - 13	Preparation for current control

The number of hours of lectures, practical (seminar) and hours of self-study is given in the technological card of the course.

TEACHING METHODS

In the process of teaching an course, in order to acquire certain learning outcomes, to activate the educational process, it is envisaged to use such learning methods as:

Verbal (lecture (Topic 1-6, 9-11, 13), problem lecture (Topic 7, 8, 12), seminar-discussion (Topic 8)).

In person (demonstration (Topic 1-13)).

Practical (practical work (Topic 1-7, 9-13), essay (Topic 8), case method (Topic 2, 3)).

FORMS AND METHODS OF ASSESSMENT

The University uses a 100-point cumulative system for assessing the learning outcomes of students.

Current control is carried out during lectures, practical and seminar classes and is aimed at checking the level of readiness of the student to perform a specific job and

is evaluated by the amount of points scored for courses with a form of semester control as grading: maximum amount is 100 points; minimum amount required is 60 points.

The final control includes current control and assessment of the student.

Semester control is carried out in the form of a semester grading.

The final grade in the course is determined for disciplines with a form of grading, the final grade is the amount of all points received during the current control.

During the teaching of the course, the following control measures are used:

Current control: task by topic (40 points), essay (10 points), presentation (10 points), current control work (10 points), colloquium (30 points).

Semester control: Grading.

More detailed information on the assessment system is provided in technological card of the course.

RECOMMENDED LITERATURE

Main

- 1. Блага Н. В. Управління проєктами : навч. посіб. Львів : Львівський державний університет внутрішніх справ, 2021. 152 с.
- 2. Вступ до публічного адміністрування : навчальний посібник / Н. Л. Гавкалова, Т. А. Власенко, Л. Ю. Гордієнко та ін. ; за заг. ред. д-ра екон. наук, професора Н. Л. Гавкалової. Харків : ХНЕУ ім. С. Кузнеця, 2016. 372 с. Режим доступу: http://www.repository.hneu.edu.ua/handle/123456789/14611
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- 4. Петренко Н. О. Управління проектами : навч. посіб. / Н. О. Петренко, Л. О. Кустріч, М. О. Гоменюк. Київ : Центр навчальної літератури, 2019. 244 с.
- 5. Яковенко О. І. Управління проектами та ризиками : навч. посіб. / О. І. Яковенко. Ніжин: Видавець ПП Лисенко М. М., 2019. 196 с.

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- 6. Bezus P., Gavkalova N., Mashchenko M., Grudtsyna Y., Bazko A., Moiseyeva L. Project management as a technology for optimizing resources in terms of reforming socio-economic relations: the experience of the EU. Ad Alta: journal of interdisciplinary research. 2022. № 12(1), XXV. PP. 67 72. Режим доступу: http://ep3.nuwm.edu.ua/id/eprint/23035
- 7. Labunska S., Gavkalova N., Pylypenko A., Prokopishyna O. Cognitive instruments of public management accountability for development of national innovation system. Public Policy and Administration. 2019. 19(3). p. 114-124. Режим доступу: https://ojs.mruni.eu/ojs/public-policy-and-administration/article/view/5239
- 8. Smalskys V., Gavkalova N., Babenko K., Zolenko A. Efficiency of the stakeholder interaction in the context of ensuring sustainable territorial development. Problems and Perspectives in Management. 2020. 18(2). р. 340-349. Режим доступу:

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- 9. Гавкалова Н. Л. Публічне управління та адміністрування у забезпеченні регіонального розвитку : монографія / Н. Л. Гавкалова, Г. М. Шумська, В. І. Мельник та ін.; за заг. ред. докт. екон. наук, професора Гавкалової Н. Л. Харків : ХНЕУ ім. С. Кузнеця, 2019. 376 с. Режим доступу : http://www.repository.hneu.edu.ua/handle/123456789/24878
- 10. Іванова Т. В. Методологія проєктного підходу в реалізації стратегічних пріоритетів сервісно-орієнтованої держави // Інвестиції: практика та досвід. 2019. № 11. С. 82 85.
- 11. Мельник B. I. Ensuring the development of the national economy as a means of effective implementation public management in Ukraine in conditions of digitization / Г. М. Шумська, В. І. Мельник // Актуальні питання у сучасній науці. 2023. № 2 (8). С. 70-83. Режим доступу: http://www.repository.hneu.edu.ua/handle/123456789/29046
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Information resources

- 18. Група радників з впровадження державної регіональної політики в Україні Програми «U-LEAD з Європою». Режим доступу : http://rdpa.regionet.org.ua
- 19. Міжнародна асоціація управління проектами. Режим доступу : https://www.ipma.world
- 20. Українська асоціація управління проектами. Режим доступу : http://upma.kiev.ua