

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



УПРАВЛІННЯ ПРОЄКТАМИ
робоча програма навчальної дисципліни

Галузь знань **07 "Управління та адміністрування"**
Спеціальність **073 "Менеджмент"**
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Статус дисципліни **вибіркова**
Мова викладання, навчання та оцінювання **англійська**

Завідувач кафедри
менеджменту та бізнесу

Тетяна ЛЕПЕЙКО

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APPROVED

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**Sheet of renewal and re-approval
of the academic discipline syllabus**

Academic year	Date of the department meeting - developer of the syllabus	Protocol number	Sign of the Head of the department

Abstract of the educational discipline

“Project management” is the elective discipline of the educational program “Business Administration” of the second (master's) level of higher education, specialty 073 “Management”.

Project management is a complex discipline that combines the general provisions of management theory and practice; special knowledge that reflects the characteristics of the subject area of activity; specific management methods and techniques obtained as a result of studying the general patterns inherent in all projects.

The purpose of the academic discipline “Project Management” is formation of students of higher education of the competencies in the system of theoretical knowledge and applied skills and abilities to use the principles and methods of project management.

The tasks of the academic discipline are:

disclosure of the content of the categorical project management apparatus, its tasks at the enterprise; mastering the skills of initiation, planning, implementation, monitoring and management, as well as project completion;

acquisition of practical skills of planning, monitoring and control of project execution in the MS Project;

mastering the key areas of knowledge in project management, in particular management of terms, cost and quality of the project, as well as human resources and project communications;

assimilation of the principles and mastering of the methods of evaluating the effectiveness of project implementation

The subject of the academic discipline are project management processes and methodological tools of management for effective project management.

Characteristics of the educational discipline

Course	1M
Semester	1
Number of credits ECTS	5
Final assessment	Exam

Structural logical scheme of studying the educational discipline:

Prerequisites	Postrequisites
Informatics	Business development management technology
Management	Technology analysis and business planning
Strategic management	Business process management

Competences and learning outcomes in the discipline

Competences	Learning outcomes
Ability to conduct research at an appropriate level.	Justify and manage projects, generate business ideas.
Ability to choose and use management concepts, methods and tools, including in accordance with defined goals and international standards.	Apply specialized software and information systems to solve organizational management problems.
Ability to develop projects, manage them, show initiative and entrepreneurship.	

The program of the educational discipline

Content module 1. Theoretical and methodological principles of project management.

Theme 1. General characteristics of project management.

1.1. The essence of project management and projects.

Purpose, tasks, subject and object of the discipline. The concept of the project. Classification of projects. Peculiarities and requirements of projects. Strategic project triangle.

1.2. Project life cycle.

The essence of the project life cycle. Life cycle properties. Characteristics of the content and properties of the phases and stages of the project cycle. Types of work performed at different stages of the cycle.

1.3. Project management.

The essence of project management. Basic requirements and tasks of project management. Technical and socio-cultural aspects of project management.

Theme 2. Project management organization.

2.1. Project management standards.

Review of existing project development standards. Types of standards. Project life cycle analysis according to the PMBOK standard.

2.2. The main processes of the project and their relationship.

Initiation processes - making a decision to start a project; planning processes - formulation of goals and criteria for project success, as well as development of work plans to achieve them; implementation processes - coordination of people and other resources to implement the plan; analysis processes – determining the compliance of the plan and project implementation with goals, criteria, decision-making on adjustment; management processes – development of corrective actions, coordination of these actions, approval and application; completion processes – formalization of project implementation and preparation of the project for systematic completion.

2.3. Designing the organizational structure of project management.

Types and characteristics of organizational structures of project management. Functional and matrix organization. Advantages of project-oriented organizational management structure. Ways to transition to a project-oriented form of organization.

2.4. Development of organizational structures and its tendencies.

Characteristics of movable and flexible structures. Modern organizational management structures and their content: external, horizontal and virtual structures.

Theme 3. Team and key human factors in project management.

3.1. Team formation and development.

Review of approaches to project team formation. The main characteristics of the project team and its composition. Principles of team formation. Model of forming an effective project team.

3.2. Organization of an effective project team.

Types of project teams: joint-interacting, joint-individual, joint-creative type. Relationship of organizational cultures, management forms and types of management activities. Signs of organizational culture. Group dynamics.

3.3. Project team management.

The main tasks of project team management. Sources and resources of staff involvement. Methods of personnel evaluation. Basic approaches to the perception of team staff. Features of human resources. Motivation of members and the whole project team.

Theme 4. Project content planning. Project structuring.

4.1. Project planning methodology.

Purpose and functions of project planning. The content of planned design works and requirements for the sequence of their implementation. Methodological approaches to project planning - traditional and systematic approaches, multi-stage and multilevel planning. CTR methodology. Project integration. Formation of a project management information system (PMIS).

4.2. Project structuring components.

The essence and content of the structuring methodology. Characteristics of subsystems of the working structure. The main features of the work package. Costs and their structuring. Responsibility matrix and its development.

4.3. Combination of project structures.

Bidirectional project structure: essence and methods of creation. Formation of a three-way project structure based on a combination of working, organizational and cost structures. Coding of project components. CTR-dictionary for medium and large projects.

Content module 2. Practical issues of project management.

Theme 5. Project planning in time.

5.1. Sequence planning.

Basic principles of construction and comparison of ADM and PDM graphs. PERT system.

5.2. Fundamentals of project network planning.

The main purpose, the task of developing network schedules. Network diagram of the project. Types of communication in PERT-graphs. Methods for calculating the parameters of the network schedule (early, late start and end, critical path, critical and non-critical work, time for non-critical work). Duration of project work and its definition. Optimistic, pessimistic and most probable forecast time of work performance. Estimation of project duration on the basis of analogues. Simulation of work duration. Optimization of network schedule, reduction of project execution time.

5.3. Project calendar planning.

Calendar plan: essence, tasks and types. Principles and ways of planning projects over time. Methods of calendar planning. Gantt chart (basic parameters and order of construction).

Theme 6. Project cost management.

6.1. Characteristics of resources to be used in the project.

Types of project costs, methods of calculating project costs. Features of planning material costs and labor costs. The sequence of the project budget, investment plan. Calculation of current project costs. Cash flow balance.

6.2. Selection of project resource sources.

Requirements for project support sources. Ranking of sources. Contract administration. Determining the type of contract. Investment attraction plan (sources of project financing).

6.3. Optimization of resources.

Planning project costs and project budget over time. Construction and interpretation of banana-shaped curve. The essence of resource histograms, the algorithm for their construction. Smoothing of resource histograms under conditions of insufficient resources. Approaches to reducing project duration. Adjustment of terms of performance of works taking into account possibility of their financing.

Theme 7. Project implementation control and project risk management.

7.1. Project compliance monitoring system.

Control cycle and its elements. Project control tools. Control of calendar plans and budgets of divisions. Reporting in the control system (tasks, principles of construction, forms of presentation).

7.2. Methods of project implementation control.

Control dates and indicators. Target plans. Cost-Schedule Control System (C / SCS). Projects in a controlled environment (PRINCE), monitoring project costs over time.

7.3. Concepts and general principles of risk analysis.

The concept of uncertainty, the essence of risk. Factors influencing risks and their dynamics. General principles of risk analysis. The sequence of stages of the risk analysis process.

7.4. Identification and assessment of potential risks.

Assessment of the probability of occurrence of a risky event. Determining the level of risk. Methods for determining the level of risk.

7.5. Identification of risk prevention work.

Methods of reducing the level of risk. The impact of risks on other management processes. Development of a risk management plan.

The list of practical / laboratory classes, as well as questions and tasks for individual work, is given in the table “Rating plan of the educational discipline”.

Teaching and instruction methods

In the process of teaching the educational discipline “Project Management” for the implementation of the defined competencies of the educational program and the activation of the educational process in lecture/practical/laboratory classes, it is envisaged to use such teaching methods as: lecture-discussions (topic 1 – 7), work in small groups (topic 2 – 6), presentations (topic 7), illustrations (topic 1 – 7), various individual (topic 1 – 7) and group work (topic 2; topic 5 – 6).

During lectures and laboratory classes, the following teaching methods are used: explanatory and illustrative, reproductive, problem-based teaching, partially research-based, research teaching methods.

The system of the study results assessment

S. Kuznets KhNUE uses a cumulative (100-point) evaluation system. Assessment is carried out on the following types of control:

current control – is carried out during the semester during the lectures, seminars and laboratory studies and estimated by the amount of points scored (maximum score – 60 points, minimum score that allows the student to pass exam – 35 points);

final/semester control – is conducted in the form of a exam in accordance with the schedule of the educational process (maximum 40 points).

Current control includes the assessment of students during:

competence-oriented task on topics – the ability to combine theory with practice when considering situations; logic, structure, style of presentation of the material when performing in the audience, the ability to justify their position (maximum score – 8 points (two competence-oriented tasks during the semester, total maximum number of points – 16));

express tests on topics – the use of analytical approaches; quality and clarity of reasoning; style of presentation of material in written works; independence of work performance; use of methods of comparison, generalization of concepts and phenomena; registration of work (estimated at 10 points (two rapid tests during the semester – the total maximum number of points – 20));

presentation - the ability to generalize information and draw conclusions; the ability to combine theory with practice when considering situations; logic, structure, style of presentation of the material in the audience, the ability to justify their position; the ability to generalize information and draw conclusions; ability to conduct critical and independent assessment of certain problematic issues; the ability to explain alternative views and the presence of their own point of view, position on a particular issue; logic, structuring and validity of conclusions on a specific problem; literacy of material submission (maximum score – 24 points);

Independent work includes:

1) study of theoretical material from the previous lecture before each subsequent lecture;

2) collection, generalization, processing of information necessary for active work in practical classes.

Final control work in the form of exam, it includes all topics of the educational discipline (topics 1 – 7). The structure of the exam card work is: 1) 10 tests (maximum score – 10 points); 2) 1 diagnostic practical task/problem situations (maximum score – 14 points); 3) 1 heuristic practical task/problem situation (maximum score – 16 points). The maximum score on exam is 40 points.

The procedure for the current assessment of students' knowledge.

Assessment of student's knowledge during seminars, practical classes and individual tasks is carried out according to the following criteria:

- understanding, degree of assimilation of the theory and methodology of the problems under consideration; the degree of assimilation of the actual material of the discipline; acquaintance with the recommended literature, as well as contemporary literature on the issues under consideration; the ability to combine theory with practice when considering production situations in the process of performing individual tasks and tasks submitted for consideration in an audience;

- to generalize information and make conclusions; the ability to explain alternative views and the presence of their own point of view, the position on a certain problematic issue; application of analytical approaches; quality and clarity of reasoning; logic, structuring and substantiation of conclusions on a specific problem; independence of work; literacy of presentation of the material; use of comparison methods, generalizations of concepts and phenomena; registration of work.

The general criteria for evaluating individual work of students are: the depth and strength of knowledge, the level of thinking, the ability to systematize knowledge on specific topics, the ability to make sound conclusions, the possession of categorical apparatus, skills and techniques for the implementation of practical tasks, the ability to find the necessary information, carry out its systematization and processing, self-realization on practical and seminars.

The final/semester control. The student should be considered certified if the sum of the points earned on the results of the current control is equal to or exceeds 35 and final control is equal to or exceeds 25. The student can not be considered certified if the sum of the points earned on the results of the current control is equal to 59 and less points.

Forms of assessment and distribution of points are given in the table “Rating-plan of the educational discipline”.

Rating-plan of the educational discipline

Topic	Forms and types of studying	Form of evaluation	Max points
1	2	3	4
Content module 1. Theoretical and methodological principles of project management			
Topic 1	<i>Classroom work</i>		
	Lectures 1 and 2 on questions: the essence of project management and projects; project life cycle; project management; technical and socio-cultural aspects of project management.	Active participation	
	Practical/laboratory class. Development of a description of the project content. Creating a project content management plan.	Completing the task	
	<i>Individual work</i>		
	Study of lecture material, preparation for practical/laboratory class		

Topic 2	<i>Classroom work</i>		
	Lecture 3 on questions: project management standards; the main processes of the project and their relationship; designing the organizational structure of project management; development of organizational structures and its tendencies.	Active participation	
	Practical/laboratory class. Development of hierarchical and organizational structures of the project.	Competence-oriented task	8
	<i>Individual work</i>		
	Study of lecture material, preparation for practical/laboratory class		
Topic 3	<i>Classroom work</i>		
	Lecture 4 on questions: team formation and development; model of forming an effective project team; organization of an effective project team; project team management.	Express test	10
	Practical/laboratory class. Development of project structures: OBS and WBS	Completing the task	
	<i>Individual work</i>		
	Study of lecture material, preparation for practical/laboratory class		
Topic 4	<i>Classroom work</i>		
	Lecture 5 on questions: project planning methodology; CTR methodology; formation of a project management information system (PMIS); project structuring components; combination of project structures.	Active participation	
	Practical/laboratory class. Development of project structures: OBS and WBS	Completing the task	
	<i>Individual work</i>		
	Study of lecture material, preparation for practical/laboratory class		
Content module 2. Practical issues of project management.			
Topic 5	<i>Classroom work</i>		
	Lecture 6 on questions: sequence planning; basic principles of construction and comparison of ADM and PDM graphs; PERT system; fundamentals of project network planning; project calendar planning; gantt chart (basic parameters and order of construction)	Express test	10
	Practical/laboratory class. Network and calendar planning of the project.	Competence-oriented task	8
	<i>Individual work</i>		
	Study of lecture material, preparation for practical/laboratory class		
Topic 6	<i>Classroom work</i>		
	Lecture 7 on questions: characteristics of resources to be used in the project; selection of project resource sources; optimization of resources.	Active participation	

	Practical/laboratory class. Construction of a Gantt chart.	Completing the task	
	<i>Individual work</i>		
	Study of lecture material, preparation for practical/laboratory class		
Topic 7	<i>Classroom work</i>		
	Lecture 8 on questions: project compliance monitoring system; methods of project implementation control; concepts and general principles of risk analysis; identification and assessment of potential risks; identification of risk prevention work.	Active participation	
	Practical/laboratory class. Project planning by MS Project	Presentation of the project	24
	<i>Individual work</i>		
	Study of lecture material, preparation for practical/laboratory class		
Exam			40

Recommended books and resources

Main

1. Управління проектами: Підручник / Й. М. Петрович, І. І. Новаківський. - Львів: Видавництво Львівської політехніки, 2018. – 396 с.
2. Petersen C. The practical guide to project management. - 2nd ed. - bookbon.com, 2017. - 73 p.
3. Stare A. Project management, Course book. - Ljubljana: Faculty of Economics University of Ljubljana, 2019. - 87 p.

Additaonal

4. A Guide to the Project Management Body of Knowledge (PMBOK Guide) - Seventh Edition and The Standard for Project Management: Project Management Institute, Inc., 2021. - 370 p.

Information resources on Internet

5. Mazorenko O.V. Project Management: course page on the PNS (Moodle platform) – Access mode : <https://pns.hneu.edu.ua/course/view.php?id=9056>.
6. Electronic catalog of the V. I. Vernadsky National Library of Ukraine. – Access mode : www.nbu.gov.ua.
7. Electronic catalog of V. G. Korolenko Kharkiv State Scientific Library. – Access mode : <http://korolenko.kharkov.com>.
8. Economic and legal library. – Access mode: <http://www.vuzlib.net>.