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

ЗАТВЕРДЖЕНО
на засіданні кафедри
менеджменту та бізнесу
Протокол № 1 від 25.08.2023 р.

ПОГОДЖЕНО
Проректор з навчально-методичної роботи
Каріна ПЕМАШКАЛО

ПРОЕКТНИЙ МЕНЕДЖМЕНТ

робоча програма навчальної дисципліни (РПНД)

Галузь знань	**07 «Управління та адміністрування»**
Спеціальність	**073 «Менеджмент»**
Освітній рівень	**перший (бакалаврський)**
Освітня програма	**«Бізнес-адміністрування»**

Статус дисципліни	**вибіркова**
Мова викладання, навчання та оцінювання	**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

management and business
Protocol № 1 of 25 .08.2023 y.

AGREED
Vice-rector for educational and methodical work

Karina NEMASHKALO

PROJECT MANAGEMENT

syllabus of the academic discipline

Field of knowledge	**07 "Management and administration"**
Speciality	**073 "Management"**
Education level	**first (bachelor)**
Educational program	**"Business Administration"**

Discipline status	**selective**
Language of teaching, studying and assessment	**English**

Developers:
PhD (Economics), Associate Professor _____ Ivanna PERERVA
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Kharkiv
2023

INTRODUCTION

"Project management" is the selective discipline of the educational program "Business Administration" of the first (bachelor'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 discipline "Project Management" is formation in higher education students of 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 object of the educational discipline is the process of managing project activities of enterprises, organizations or individual teams.

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

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

Table 1

Learning outcomes and competencies formed by the discipline

Learning outcomes	Competencies that a higher education student must master
LO3	GC9, SC3, SC4, SC8,
LO5	SC1
LO6	SC2, SC12
LO7	GC12, SC1, SC2, SC4
LO8	SC2, SC8
LO17	SC3, SC4
LO18	GC11
LO20	GC11, SC5, SC7

where, GC9. Ability to learn and master modern knowledge.

GC11. Ability to adapt and act in a new situation.

GC12. Ability to generate new ideas (creativity).

SC1. Ability to identify and describe organizational characteristics.

SC2. Ability to analyze the results of the organization's activities, to compare them with the factors of influence of the external and internal environment.

SC3. Ability to determine the prospects for the development of the organization.

SC4. Ability to identify the functional areas of the organization and the connections between them.

SC5. Ability to manage the organization and its divisions through the implementation of management functions.

SC7. Ability to select and use modern management tools.

SC8. Ability to plan the organization's activities and manage time.

SC12. Ability to analyze and structure organizational problems, to form reasonable decisions.

LO3. Demonstrate knowledge of theories, methods and functions of management, modern concepts of leadership.

LO5. Describe the content of the functional areas of an organization's activities.

LO6. Demonstrate skills in searching, collecting and analyzing information, calculating indicators to justify management decisions.

LO7. Demonstrate organizational design skills.

LO8. Implement management techniques to ensure the effectiveness of the organization.

LO17. Perform research individually and/or in a group under the guidance of a leader.

LO18. Evaluate opportunities to use technology to optimize business efficiency.

LO20. Coordinate aspects of business organizations that contribute to the efficiency of its work.

THE PROGRAM OF THE EDUCATIONAL DISCIPLINE

Content 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.

Content module 2. Practical issues of project management.

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.

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 a 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 the possibility of their financing.

Theme 7. Project implementation control.

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.

Theme 8. Project risk management.

8.1. 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.

8.2. 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.

8.3. 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 laboratory classes in the discipline is given in table 2.

Table 2

The list of laboratory classes

Name of the topic and/or task	Content
Theme 1 Task 1	Developing a description of the project content. Creating a project content management plan. SWOT analysis of the project.
Theme 2 Task 2	Development of hierarchical and organizational structures of the project.
Theme 3 Task 3	Development of a project personnel management plan
Theme 4 Task 4	Development of project structures: OBS and WBS
Theme 5 Task 5	Network and calendar planning of the project. Building a Gantt chart.
Theme 6 Task 6	Project planning using MS Project.
Theme 7 Task 7	Creating a project cost and resource management plan. Controlling project implementation: a methodical approach.
Theme 8 Task 8	Project risk assessment and development of a risk management plan.

The list of independent work in the discipline is given in table 3.

Table 3

List of independent work

Name of the topic and/or task	Content
Theme 1-8	Search, selection and review of literature on a given topic
Theme 1-8	Preparation for the Express test
Theme 1-8	Preparation for laboratory classes
Theme 1-8	Performing an individual task (presentation)
Theme 1-8	Preparation for the exam

The number of hours of lectures, laboratory classes and hours of independent work is given in the curriculum (technological map) for the discipline.

TEACHING METHODS

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

Verbal (lecture-discussion (Topics 1–8), small group work (Topics 2–6), lecture-provocation (Topic 8).

Visual (demonstration (Topics 1–8)).

Practical (laboratory work (Topics 1–8), group works (Topics 2, 5, 6), presentation (Topic 8).

FORMS AND METHODS OF ASSESSMENT

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

Current control is carried out during lectures, laboratory and seminar classes and is aimed at checking the level of readiness of the higher education candidate to perform a specific job and is evaluated by the amount of points scored:

− for disciplines with a form of semester control, an exam: the maximum amount is 60 points; the minimum amount that allows a higher education candidate to pass an exam is 35 points.

The final control includes semester control and assessment of the higher education student.

Semester control is carried out in the form of a semester exam . The semester exam is held during the examination session.

The maximum amount of points that a higher education student can receive during an exam is 40 points. The minimum score for an exam to be considered passed is 25 points.

The final grade in the educational discipline is determined:

− for disciplines with a form of semester control, an exam - by summing the points for current and final control.

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

Current control: express tests (estimated at 10 points (two rapid tests during the semester – the total maximum number of points – 20)); competence-oriented tasks on topics (maximum score – 8 points (two competence-oriented tasks during the semester, total maximum number of points – 16)); presentation (maximum score – 24 points).

Semester control: Exam (40 points).

More detailed information on the evaluation system is provided in the work plan (technological map) for the discipline.

An example of an exam card and evaluation criteria for the educational discipline.

Example of an exam card

Simon Kuznets Kharkiv National University of Economics
First (bachelor's) level of higher education
Specialty "Management"
Educational and professional program "Business Administration".
Educational discipline "Project Management"

EXAM CARD № 1

Task 1 (test). **(10 points)**

1. What is the order of the four steps in Deming's Cycle for Improvement?
a) Plan, do, check, and act
b) Do, plan, act, and check
c) Check, do, act, and plan
d) Plan, act, check, and do

2. What is the organizational structure of the project involves colocation of team members?
a) Strong matrix
b) Weak matrix
c) Balanced matrix
d) Functional organization
e) Projectized Organization

3. Choose the cost which belongs to variable project cost?
a) Wages
b) Rental
c) Material
d) All of the above

4. What is a method used to estimate the minimum project duration and determine the amount of scheduling flexibility on the logical network paths within the schedule model?
a) Critical path method
b) Program Evaluation and Review Technique (PERT)
c) Gantt Charts
d) None of the above

5. What is the process of subdividing project deliverables and project work into smaller, more manageable components?
a) WBS
b) OBS
c) RACI Matrix
d) None of the above

6. What criteria are used in the stakeholders' analysis?
a) Interest
b) Power
c) Size
d) Dependencies

7. In today's view of quality, who defines quality?
a) Senior management
b) Project management
c) Project Team
d) Customers

8. Choose the cost which doesn't belong to the direct cost?
a) Costs of materials
b) Team wages
c) Taxes
d) All of the above

9. Who is a person or group of people who have a vested interest in the success of an organization and the environment in which the organization operates?
a) Stakeholder
b) Shareholder

10. What is a document that formally recognizes the existence of a project
a) Project charter
b) Contract
c) Business plan
d) No correct answer
e) All answers are correct

Task 2 (stereotypical). **(12 points)**

You are a financial analyst for Damon Electronics Company. The director of capital budgeting has to analyze proposed capital investments for Project X. Project has a cost of $10 000, and the cost of capital for the project is 12%. The project's expected net cash flows are as follows:

Table 1

YEAR	Projects X
0	($ 10 000)
1	6 500
2	3 000
3	3 000
4	1 000

Calculate project's payback period, net present value (NPV) and internal rate of return (IRR). Should you accept this project or not? Why?

Task 3 (heuristic). **(18 points)**

Project: "Organization of a network computer club"

The essence of the project: organization of leisure time for youth, training in the basics of using modern computer facilities, information capabilities and resources of the World Wide Web (Internet).

Form of participation: Lending

Project financing:

Own funds - 2%; state support funds - 98%.

The aim of the project is to organize leisure time for young people, teach the basics of using modern computer facilities, information capabilities and resources of the World Wide Web (Internet), help solve social problems of society associated with juvenile delinquency, drug addiction, which gives the project high social significance.

The club is located in the building of the technical school in a room with a separate entrance. Nearby are educational buildings and hostels of the University, several secondary schools, which ensures high attendance of the club by school children and students.

Identify the main project participants (stakeholders) – 10-15 Stakeholders. Identify their interest in the project. Fill out the results in the table.

Conduct an analysis of the project participants. Present the results in the form of a participant analysis card.

Make conclusions, where to justify strategies of behavior with different groups of stakeholders.

Approved at the meeting of Management and Business Department,
Protocol №___ of «___» _____ 20___ year.

Examinator PhD, Associate Prof. Ivanna PERERVA

Head of Department Doctor of Economics, prof. Tatyana LEPEYKO

Assessment criteria

The final points for the exam consist of the sum of the points for all tasks, rounded to the nearest whole number according to the rules of mathematics.

The algorithm for solving each task includes separate stages that differ in complexity, labor intensity, and importance for solving the task. Therefore, individual tasks and stages of their solution are evaluated separately from each other in the following way:

Task 1 (test). **(10 points)**

For each correct answer – 1 point.

Task 2 (stereotypical). **(12 points)**

11 – 12 points are given for complete mastery of the program material and the ability to navigate it, conscious application of knowledge to solve practical situations. When completing the task, the student must draw the correct conclusions about the proposed production situation and formulate their own recommendation for improving the problem. The design of the completed task should be neat.

8 – 10 points are given for complete mastery of the program material and the ability to navigate it, conscious application of knowledge to solve the problem. The design of the completed task should be neat.

6 – 7 points are assigned for partial ability to apply theoretical knowledge to solve practical problems, if the task is partially completed; the student's answers demonstrate an understanding of the basic material provisions of the discipline.

2 – 5 points are assigned for mastering a significant amount of material, however, if the student performs the task without sufficient understanding of how to use the educational material and cannot correctly complete all tasks.

0 – 1 points are assigned for failure to complete the assignment as a whole.

Task 3 (heuristic). **(18 points)**

17 – 18 points are given for in-depth knowledge of the program material, use of not only recommended but also additional literature and creativity, clear mastery of the concepts, methods, techniques, tools of financial science, the ability to use them to solve specific practical problems, and resolve production situations. When performing a heuristic task, the student must provide a production version of the proposed solution to the situation and draw appropriate conclusions. The wording of questions should be clear, logical and consistent.

15 – 16 points are given for complete mastery of the program material and the ability to navigate it, conscious application of knowledge to solve a heuristic problem if all the requirements are met, minor errors are allowed (i.e., the approach to solving the problem is correct, but there are inaccuracies in the calculation of certain parameters), or not quite complete presentation of the results obtained in solving the problem. The design of the completed task should be neat.

12 – 14 points are assigned for the ability to apply theoretical knowledge to solve a heuristic problem if most of the tasks are completed and the student's answer demonstrates an understanding of the conceptual material of the discipline.

8 – 11 points are assigned for mastering a large amount of material, however, if the student performs a heuristic task without sufficient understanding of the application of educational materials and cannot correctly complete all tasks.

2 – 7 points are given for partial ability to apply theoretical knowledge to solve practical problems, for not mastering a large amount of material, if the student cannot complete the task correctly, and faces many difficulties in analyzing economic phenomena and processes.

0 – 1 points are assigned for failure to complete the assignment as a whole.

RECOMMENDED LITERATURE

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