

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

"ЗАТВЕРДЖУЮ"

Проректор з навчально-методичної роботи

Каріна ГЕМАШКАЛО



Проектний менеджмент

робоча програма навчальної дисципліни

Галузь знань	<i>Vсі</i>
Спеціальність	<i>Vсі</i>
Освітній рівень	<i>перший (бакалаврський)</i>
Освітня програма	<i>Vсі</i>

Статус дисципліни	<i>вибіркова</i>
Мова викладання, навчання та оцінювання	<i>англійська</i>

Завідувач кафедри
менеджменту та бізнесу

Тетяна ЛЕПЕЙКО

ЗАТВЕРДЖЕНО
на засіданні кафедри *менеджменту та бізнесу*
Протокол №8 від 15.01.2021 р.

Розробники :
Мазоренко О. В., к.е.н., доцент кафедри менеджменту та бізнесу,
Перерва І. М., к.е.н., доцент кафедри менеджменту та бізнесу.

**Лист оновлення та перезатвердження
робочої програми навчальної дисципліни**

Навчальний рік	Дата засідання кафедри – розробника РПНД	Номер протоколу	Підпис завідувача кафедри

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

"APPROVED"

Vice-rector
for educational and methodical work

Karina NEMASHKALO

Project management

syllabus of the academic discipline

Field of knowledge	<i>All</i>
Speciality	<i>All</i>
Education level	<i>first (bachelor)</i>
Educational programs	<i>All</i>

Discipline status	<i>Selective</i>
Language of teaching, studying and assessment	<i>english</i>

Head of Management and
Business department

Tetyana LEPEYKO

Kharkiv
2021

APPROVED

at the meeting of the Management and Business Department
Protocol № 8 of January 15, 2021.

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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 discipline

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

The purpose of discipline: formation of students of the competencies in the system of theoretical knowledge and applied skills and abilities to use the principles and methods of project management.

Characteristics of the discipline

Academic year	3
Semester	6
Number of credits ECTS	5
Final assessment	Pass

Structural logical scheme of the discipline studying:

Prerequisites	Postrequisites
Economics of an Enterprise	Business process management
Management	Business planning
Probability theory and mathematical statistics	Risk management

Competencies and results of discipline studying:

Competencies	Learning outcomes
Ability to determine ways to formalize and implement design decisions	Knowledge and understanding of the content of projects and features of their implementation
Ability to design the organizational structure of the project	Knowledge and understanding of the typology of organizational structures of the project; Skills and abilities to build organizational structures
Ability to make informed choices of project participants	Ability and skills to form a project team
Ability to develop a project model	Knowledge and understanding of the project model; project planning skills
Ability to effectively manage the time characteristics of projects	Knowledge and understanding of project time management methodology; Ability and skills to apply methodological tools for managing the time characteristics of projects
Ability to manage the value of the project at all stages of its life cycle	Knowledge and understanding of project cost management methodology; Ability and skills to apply methodological tools of cost management
Ability to manage changes (subject area) in the implementation of projects of various types and kinds	Knowledge and understanding of the subject area of the project; Ability and skills to apply methodological tools to manage change
Ability to effectively manage risk in projects of	Knowledge and understanding of project risk

various types and kinds	management methodology; Ability and skills to apply methodological tools for risk management
Ability to analyze the progress of the project	Skills and abilities to control project activities

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. Definition of project management. Project management functions and processes. The concept of the project. Classification of projects. Terms of projects.

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 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.

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, as well as questions and tasks for independent work is given in the table "Rating plan of the academic discipline".

Teaching and learning methods

Achieving the expected learning outcomes is ensured by the use of these methods of teaching and learning: problem lectures (themes 3, 5), discussions (themes 1, 2, 8), presentations (themes 1 – 8), simulation of professional situations (themes 6, 7), work in small groups (themes 5).

The system of the study results assessment

The system of evaluation of the developed competencies of students takes into account the types of classes, which according to the curriculum include lectures, seminars, practical classes, as well as independent work. Assessment of the developed competencies among students is based on a 100-point accumulation system.

Control measures include:

current control carried out during the semester during lectures, practical (seminar) classes and is estimated by the amount of points scored (maximum amount - 100 points; minimum amount that will indicate a positive assessment - 60 points);

final control, which is conducted in the form of final control work, taking into account the total amount of points in the discipline (maximum - 100 points), is defined as the sum of points for student performance in the current control, including written final test (maximum score - 30 points). The points obtained for the written test are added to the points for the current performance. The test is set based on the results of the student's work throughout the semester.

The procedure for conducting current assessment of students' knowledge. Assessment of student knowledge during lectures, practical classes and individual tasks is carried out according to the following criteria:

lectures - understanding, degree of mastering the theory and methodology of the problems considered during the discussion of topical issues, the level of activity in discussions (maximum score - up to 1 point depending on the level of student activity (15 lectures during the semester));

laboratory classes - the degree of mastering the actual material of the discipline; acquaintance with the recommended literature, and also with the modern literature on the considered questions (it is estimated to 1 point for each practical class depending on level of activity of the student (15 laboratory classes during a semester));

complex task - 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 - 19 points);

performing express tests - 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; design of work (it is estimated in 7 points (three express tests during a semester)).

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 (individual task) of knowledge and competencies of students in the discipline - is a test of student understanding of the discipline as a whole, the relationship between individual sections, the ability to use accumulated knowledge, the ability to formulate their attitude to the problems of the discipline. It covers the program of the discipline and involves determining the degree of mastery of competencies by students, diagnosing the level of their theoretical training. The maximum grade that a student can receive is 30 points (one individual task during the semester).

The final score in the discipline is calculated based on the results of the student's work during the semester as a general assessment of the discipline, as the accumulation of points, in particular, for active participation in lectures, practical tasks, homework, points for tests, as well as for independent student work. The total result in points for the semester is: "60 and more points are counted", "59 and less points are not counted" and entered in the "Record of success" of the academic discipline.

The final mark is set according to the scale given in the table "Evaluation scale: national and ECTS".

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

Evaluation scale: national and ECTS

The sum of points for all types of educational activities	Mark CKTC	Mark on a national scale	
		for exam, course project (work), practice	for credit
90 – 100	A	excellent	credited
82 – 89	B	good	
74 – 81	C		
64 – 73	D	satisfactory	not credited
60 – 63	E		
35 – 59	FX	unsatisfactory	

Rating plan of the academic discipline

Theme	Forms and types of studying		Evaluation Forms	Max mark
Content module 1. Theoretical and methodological principles of project management				
Theme 1. General characteristics of project management	<i>Classroom work</i>			
	Lecture	Lecture 1. General characteristics of project management	Work on lecture	1
	Laboratory lesson	Laboratory lesson 1. Task. Development of a description of the project content. Creating a project content management plan.	Active participation in tasks performance	1
	<i>Independent work</i>			
	Questions and tasks for self-study	Search, selection and review of literary sources on a theme 1 Performance of tasks	Homework check	
	<i>Classroom work</i>			
	Lecture	Lecture 2. General characteristics of project management	Work on lecture	1
	Laboratory lesson	Laboratory lesson 2. SWOT-analysis of the project.	Active participation in tasks performance	1
	<i>Independent work</i>			
	Questions and tasks for self-study	Search, selection and review of literary sources on a theme 1 Preparation for the lesson	Homework check	
Theme 2. Project management organization	<i>Classroom work</i>			
	Lecture	Lecture 3. Project management organization	Work on lecture	1
	Laboratory lesson	Laboratory lesson 3. Task. Development of hierarchical and organizational structures of the project.	Active participation in tasks performance	1
	<i>Independent work</i>			
	Questions and tasks for self-study	Search, selection and review of literary sources on a theme 2	Homework check	
		Execution of tasks		
	<i>Classroom work</i>			
	Lecture	Lecture 4. Project management organization	Work on lecture	1
	Laboratory lesson	Laboratory lesson 4.Task. Development of hierarchical and organizational structures of the project.	Active participation in tasks performance	1
	<i>Independent work</i>			
Questions and tasks for self-study	Search, selection and review of literary sources on a theme 2 Preparation for express tests	Homework check		

Theme 3. Team and key human factors in project management	<i>Classroom work</i>			
	Lecture	Lecture 5. Team and key human factors in project management	Work on lecture	1
	Laboratory lesson	Laboratory lesson 5. Task. Development of a project personnel management plan	Active participation in practical tasks performance	1
	<i>Independent work</i>			
	Questions and tasks for self-study	Search, selection and review of literary sources on a theme 3	Homework check	
		Solving practical tasks		
	<i>Classroom work</i>			
	Lecture	Lecture 6. Team and key human factors in project management	Work on lecture	1
			Express tests	7
	Laboratory lesson	Laboratory lesson 6. Training. Creating a team.	Active participation in practical tasks performance	1
<i>Independent work</i>				
Questions and tasks for self-study	Search, selection and review of literary sources on a theme 3 Preparation for training	Homework check		
Content module 2. Practical issues of project management				
Theme 4. Project content planning. Project structuring.	<i>Classroom work</i>			
	Lecture	Lectures 7-8. Project content planning. Project structuring.	Work on lecture	2
	Laboratory lesson	Laboratory lesson 7-8. Task 4. Development of project structures: OVS and WBS	Active participation in practical tasks performance	2
	<i>Independent work</i>			
Questions and tasks for self-study	Search, selection and review of literary sources on a theme 4 Structure development Preparation for control work Performing a task on the theme	Homework check		

Theme 5. Project planning in time.	<i>Classroom work</i>			
	Lecture	Lecture 9. Project planning in time.	Work on lecture	1
	Laboratory lesson	Laboratory lesson 9. Task. Network and calendar planning of the project.	Active participation in practical tasks performance	1
	<i>Independent work</i>			
	Questions and tasks for self-study	Search, selection and review of literary sources on a theme 5 Execution of tasks	Homework check	
	<i>Classroom work</i>			
	Lecture	Lecture 10. Project planning in time.	Work on lecture	1
			Express tests	7
	Laboratory lesson	Laboratory lesson 10. Construction of a Gantt chart.	Active participation in practical tasks performance	1
<i>Independent work</i>				
Questions and tasks for self-study	Search, selection and review of literary sources on a theme 5 Execution of tasks	Homework check		
Theme 6. Project cost management.	<i>Classroom work</i>			
	Lecture	Lectures 11-12. Project cost management.	Work on lecture	2
	Laboratory lesson	Laboratory lessons 11-12. Project planning by MS Project	Active participation in practical tasks performance	2
	<i>Independent work</i>			
Questions and tasks for self-study	Search, selection and review of literary sources on a theme 6 Execution of tasks Preparation for express tests	Homework check		

Theme 7. Project implementation control.	<i>Classroom work</i>			
	Lecture	Lectures 13. Project implementation control.	Work on lecture	1
	Laboratory lesson	Laboratory lessons 13. Task. Creating a project cost and resource management plan.	Active participation in practical tasks performance	1
	<i>Independent work</i>			
	Questions and tasks for self-study	Search, selection and review of literary sources on a theme 7	Homework check	
		Preparation of a report on the results of work	Complex task	19
	<i>Classroom work</i>			
	Lecture	Lectures 14. Project implementation control.	Work on lecture	1
			Express tests	7
	Laboratory lesson	Laboratory lessons 14. Task. Control of project implementation: methodical approach	Active participation in practical tasks performance	1
<i>Independent work</i>				
Questions and tasks for self-study	Search, selection and review of literary sources on a theme 7 Execution of practical tasks	Homework check		
Theme 8. Project risk management	<i>Classroom work</i>			
	Lecture	Lecture 15. Project risk management	Work on lecture	1
	Laboratory lesson	Laboratory lesson 15. Task. Assess project risks and develop a management plan	Active participation in practical tasks performance	1
		Presentation of an individual task	Individual task	30
	<i>Independent work</i>			
Questions and tasks for self-study	Search, selection and review of literary sources on a theme 8	Homework check		
	Execution of practical tasks			
	Preparation of an individual task			
The total maximum number of points in the academic discipline			100	

Recommended reading

Main:

1. Афанасьєв М. В. Управління проектами: навч.-метод. посіб. / Харківський національний економічний університет. – Х. : ІНЖЕК, 2007. – 271 с.
2. Гонтарева І. В. Управління проектами: підручник / Харківський національний економічний університет. – Х. : ХНЕУ, 2011. – 443 с.
3. Тянь Р. Б. Управління проектами: підручник / Дніпропетр. ун-т екон. та права. – К. : ЦУЛ, 2004. – 221 с.
4. Хміль Т. М. Проектний менеджмент: навч. посіб. / Харківський національний економічний університет. – Х. : ХНЕУ, 2009. – 126 с.

Additional:

5. Руководство к своду знаний по управлению проектами (руководство PMBOK®): Project Management Institut, 2008. 4-е изд., - 496 с.

Information resources

6. Project management : course page on the PNS (Moodle platform) [Electronic resource]. – Access mode : <https://pns.hneu.edu.ua/course/view.php?id=2966>.