

# CHERNIHIV POLYTECHNIC NATIONAL UNIVERSITY



Educational and Scientific Institute of Management, Food  
Technology and Trade  
Department of Public Administration and Management  
of Organizations

<b>Назва курсу</b>	PROJECT MANAGEMENT IN PUBLIC ADMINISTRATION (OK 7)
<b>Language</b>	<i>English</i>
<b>Year and semester</b>	applicants for the third level of higher education (PhD) in the field of knowledge 28 - Public management and administration, specialty: 281 - Public management and administration 2 year, 3 semester
<b>Lector</b>	Dr., Pr. Nataliia Tkalenko Dr., Pr. Grigoriy Starchenko
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**1. Abstract** A purpose and task of study of discipline is forming for the future managers of abilities and skills in relation to a management projects taking into account world and domestic achievements. The article of study of discipline is process of professional activity and its organizational-legal registration. Tools and concepts such as project charter, scope statement, work breakdown structure, project estimating, and scheduling methodologies are studied. We will even practice with Microsoft Project software to be able to manage a project from start to deployment.

After completing this course, you should be able to:

- Define the role that projects and project management play in accomplishing the company's strategic objectives, taking into account the various types of organizations such as functional, matrix, and project structures.

- Create a project charter, a scope statement, a Work Breakdown Structure (WBS), and Responsibility Assignment Matrix (RAM).

- Develop precedence relationships among tasks based on a Breakdown Structure (WBS), a network diagram and critical path, and create a schedule that includes initial and leveled resource allocations.

- Assess major schedule, cost, and performance risk elements and understand the approach for managing risks using qualitative as well as quantitative techniques.

- Develop an approach for managing a high-performance project team.

- Establish ways of monitoring schedule and cost performance using earned value techniques.

- Determine key elements of a communications plan to keep stakeholders abreast of progress, problems, and controls.
- Use project management software to plan, implement, control, and report on a project.
- Establish a closeout strategy that will maximize the value of the project experience to the organization by capturing best practices and lessons learned

## **Module 1.**

### **Topic 1. Introduction to Project management**

General characteristics of the course "Project Management": purpose, objectives, issues. The value of the course for training. The order of studying the course and control of students' knowledge. Systematics of the course "Project Management " and its connection with other disciplines.

Origins of project management. History of project management development. Concepts and classification of projects. The essence of the project management system, its elements. Project management goals. Principles and functions of project management.

Organization of the project management system. Designing the organizational structure of project management. Project management using the external organizational structure of the project, the advantages and disadvantages of the organizational structure.

### **Topic 2. Development of the project concept. Project performance indicators.**

#### **Calculation of project efficiency**

Project idea, preliminary research, additional research, pre-project research, technical feasibility of the project, economic feasibility of the project, technical analysis, commercial analysis, financial analysis, environmental analysis, organizational analysis, social analysis, economic analysis, structural analysis, budget efficiency analysis.

### **Topic 3. General approaches to project planning**

Project planning, project planning process, project plan, principles of project planning, planning methodology, project control, types of control, integration of planning and control, change management. Stages of monitoring the progress of the project in the parent organization.

## **Module 2.**

### **Topic 4. Structuring the project. Network and calendar planning of the project**

Project structuring, project working structure, cost structuring, structuring methodology, unidirectional project structure, bidirectional project structure, three-way project structure, project coding, network planning, network model, arrow graphs, advance graphs, calendar planning, charting, diagram network schedules, critical path, duration of work.

### **Topic 5. Planning costs, budget, time and project schedule**

Resource planning. General assessment of resource needs and their distribution over time. Compilation of a table of resource needs for project work. Construction of a resource histogram. Compilation of a table of available resources. Comparison of the need and availability of resources, determining their shortage or surplus. Identification of suppliers of resources for the project. Optimization of total schedules of resource requirements. Taking into account the factors that affect the provision of the project with resources. Formation of schedules of supply of resources. Replanning the calendar plan. Control and construction of new resource plans and histograms. Contract planning. Project cost estimate. Project budget.

### **Topic 6. Monitoring the implementation of the project**

Tasks of control over project implementation. Control methods. Monitoring the implementation of calendar plans and budget units. Preliminary control. Current control. Final control. Budget control. Reporting in the control system. Measurement and analysis of project performance indicators. Method of comparison with planned indicators. Adjusted budget method. Cost ratio. Estimated project implementation period. Project progress. Monitoring project progress. Earned Value method. The essence of the basic concepts of Earned Value.

### **Module 3.**

#### **Topic 7. Risk management in projects**

The concept of risk and uncertainty. Classification of project risks. Causes and factors influencing the dynamics of risks. Basic methods of risk analysis. Ways to reduce project risks. The concept and classification of risks. Risk management model. Causes of risks. The main methods of risk analysis: 1) response sensitivity analysis; 2) scenario analysis; 3) market risk (beta risk); 4) determining the break-even point; 5) decision tree; 6) Monte Carlo method. Risk reduction methods.

#### **Topic 8. Project quality management. Procurement management. Organization and conducting of tenders for projects**

Methodological bases of project quality management and ways to ensure project quality. The cost of ensuring the quality of projects. Methods of project quality control.

The concept of competitive bidding (tenders). Classification and procedure. Features of the organization of carrying out and drawing up of the reporting on two-stage bidding. Bidding on projects, their features. Tender proposals.

### **2. The purpose and objectives of the discipline**

The purpose of the course is to form knowledge on project management, the acquisition of higher education practical skills in solving complex specialized and practical problems, characterized by complexity and uncertainty of conditions:

3K5. The ability to present research results at all levels in Ukrainian and foreign languages, communicate in a foreign scientific and professional environment and work in an international context;

ΦK5. The ability to create new knowledge, produce original scientific research, scientific / scientific and methodological products and services, the quality of which corresponds to the needs of national and international markets;

ΦK10. The ability to initiate, organize and manage innovative and research projects, make proposals for the financing of scientific research, justify the economic efficiency of the implemented research results

Subject of the discipline: project management processes in organizations, which are implemented using specific methods and tools of project management.

Tasks are solved in studying the discipline:

- presentation of generalized model characteristics of project management as a system of interrelated goals, functions and tools that are defined, implemented and used in the course of management;

- acquisition of skills to perform the main functions of project management: organization, planning and control;

- mastering the methodology necessary for successful project management, as well as acquiring skills of adaptation and implementation of project solutions in practice.

The result of the discipline study is the formation of future professionals with appropriate competence for effective project management.

### **3. Expected learning outcomes of the discipline**

During the study of the discipline, the applicant must achieve or improve the following program learning outcomes (IIPH), provided by the educational and scientific program:

IIPH 4. Be able to apply modern information and communication technologies, marketing and social research, search tools, analysis and processing of information, specialized software and information systems in scientific, educational and professional activities;

IIPH 5. Know the basic principles of scientific management, management of modern organizational structures, management of scientific projects, registration of intellectual property rights;

IIPH 11. Be able to prepare project requests for research funding, ensure the commercialization of results in compliance with intellectual property rights;

IIPH. 13. Be able to apply in professional scientific, scientific and pedagogical activities, leadership skills, time-management, work productively in a team, including in international and multicultural groups, possess professional communication skills

As a result, applicants:

would to know:

- theoretical foundations of project management;
- main project management functions;
- ways to organize project management and planning the content, time, cost of the project;
- sources of project resources,
- risks arising from project management,
- project implementation control systems.

be able to:

- plan the content of the project;
- build a network model and calculate the project schedule;
- draw up a project budget;
- monitor the progress of the project;
- build a project team;
- use application management packages for projects.

### **4. Criteria for evaluating learning outcomes**

For those applicants who did not have time to perform all mandatory types of work and have a final score of up to 19 points (on a rating scale) before the final semester control, additional individual classes are conducted, which determine how deeply mastered the material, and whether it is necessary to re-study the discipline.

The discipline would be considered as mastered if the applicant of higher education:

knows:

- theoretical foundations of project management;
- main project management functions;
- ways to organize project management and planning the content, time, cost of the project;

- sources of project resources,
- risks arising from project management,
- project implementation control systems.

is able to:

- plan the content of the project;
- build a network model and calculate the project schedule;
- draw up a project budget;
- monitor the progress of the project;
- build a project team;
- use application management packages for projects.

## **5. Means of diagnosing learning outcomes**

The means of assessment and methods of demonstrating learning outcomes in the discipline are current and semester control. Current control consists of surveys conducted during lectures and practical classes, as well as the implementation of individual tasks within the scientific direction of the applicant's research. Questions for current control are in the relevant guidelines. Semester control is conducted in the form of an exam, the question of which at the beginning of the semester is placed in the distance learning system MOODLE.

Assessment of applicants' knowledge is carried out according to Regulations on current and final assessment of higher education applicants of the National University Chernihiv Polytechnic National University, approved by the Academic Council of Chernihiv Polytechnic National University (protocol № 6 from 31.08.2020) and put into effect by order of the Rector from 31.08.2020 №26.

From the discipline, The applicant can score up to 60% of the final grade for all types of work during the semester and up to 40% of the final grade – test. Current control is carried out by communicating with applicants during lectures, consultations and surveys during practical classes. Each module is given a test. The module test contains different types of tasks: problem, tests, theoretical questions. The results of the current control for the relevant module are announced by the lector at the next class. The scores obtained by the applicant during the module controls make up the assessment of the current control.

Current control evaluation disclosed to the applicant to the session. Applicants who have fully completed the discipline curriculum and received 60 points as a result of the current control, can leave the number of points scored as a final semester grade.

The final control is a test. If applicant wants to increase the grade obtained for the points gained during the semester, he takes a test with the following tasks: 20 test questions for the course (up to 20 points); practical task (up to 20 points). In this case, the final semester grade is given on the highest sum of points (either on the results of credit, or on the results of current and modular controls.

If the applicant has not completed all the types of work during the semester, has unfinished work or has not scored the minimum required number of points (20), he is not allowed to take the test during the session, but has the right to eliminate academic arrears in the manner prescribed by the "Regulations on the current and final assessment of knowledge of higher education students of Chernihiv Polytechnic National University.

The policy of academic integrity is based on the Code of Academic Integrity of the Chernihiv Polytechnic National University, approved by the Academic Council of CPNU (Minutes № 6 from 31.08.2020).

## 6. Distribution of points received by applicants Current control over modules

Module		Number of points		Weights
<b>Module 1.</b>		<b>0...</b>	<b>100</b>	<b>0,2</b>
1	Completeness of keeping syllabi.	0...	2,5	
2	Preparedness for practical classes.	0...	2,5	
3	Solving a practical problem.	0...	10	
4	The answer to a theoretical question.	0...	5	
5	Module test	0...	80	
<b>Module 2.</b>		<b>0...</b>	<b>100</b>	<b>0,2</b>
1	Completeness of keeping syllabi.	0...	2,5	
2	Preparedness for practical classes.	0...	2,5	
3	Solving a practical problem.	0...	10	
4	The answer to a theoretical question.	0...	5	
5	Module test	0...	80	
<b>Module 3.</b>		<b>0...</b>	<b>100</b>	<b>0,2</b>
1	Completeness of keeping syllabi.	0...	2,5	
2	Preparedness for practical classes.	0...	2,5	
3	Solving a practical problem.	0...	10	
4	The answer to a theoretical question.	0...	5	
5	Module test	0...	80	
<b>TOTAL</b>		<b>0...</b>	<b>60</b>	

### Assessment scale: national and ECTS

Total points for all the educational activities	ECTS	National scale	
		for the exam, coursework	for test
90 – 100	<b>A</b>	excellent	credited
82-89	<b>B</b>	good	
75-81	<b>C</b>	satisfactory	
66-74	<b>D</b>		
60-65	<b>E</b>		
35-59	<b>FX</b>	unsatisfactory with the possibility of reassembly	not credited with the possibility of re-assembly
0-34	<b>F</b>	unsatisfactory with compulsory re-study of the discipline	not credited with compulsory re-study of the discipline

## 7. Tools, equipment and software, the use of which provides for the discipline

Lecture material is presented in the form of presentations using a media projector. During the lectures, problem situations are analyzed, there is feedback from the audience by formulating questions and concise answers from both sides. In practical classes, theoretical provisions are considered in accordance with the thematic plan of classes, examples are analyzed in detail, and then practical problems are solved.

An educational lecture is a logically complete, scientifically substantiated and systematized presentation of a certain scientific or scientific-methodical issue, illustrated, if necessary, by means of visualization and demonstration of experiments. Elements of research work are introduced during the presentation of lecture material.

Practical lesson - expansion, deepening and detailing of theoretical knowledge gained by students in lectures and in the process of independent work and directing them to increase the level of learning material, inculcation of skills, development of scientific thinking and oral speech.

Consultation - the student receives answers from the teacher to specific questions or explanations of certain theoretical provisions or aspects of their practical application.

Presentations - speeches to the audience and presentation of certain achievements, results of group work.

Software: Word, Excell, Power Point.

List of equipment: laptop, media projector.

## **8. Recommended literature**

1. Закон України «Про державні цільові програми» від 18.03.2004 № 1621-ІУ. 2. доступу: <https://zakon.rada.gov.ua/laws/show/1621-15#Text>
2. Основи управління проектами: пер. с англ./ Дж. Хігні. – 5-е вид. - К.: Фабула, 2020. – 272с.
3. Проектний менеджмент у публічному управлінні: підручник. – К.: НАДУ, 2017. – 344 с.
4. Розроблення та управління проектами у публічній сфері: європейський вимір для України. Практичний посібник / [Чемерис А.]; Швейцарсько-український проект «Підтримка децентралізації в Україні – DESPRO». – К. : ТОВ «Софія-А». – 2012. – 80 с.
5. Старченко Г. В. Управління проектами: теорія та практика : навч. посіб. Чернівці: Видавець Брагинець О. В., 2018. 306 с.
6. Управління проектами : Навчальний посібник для студ. вищих навч. закладів/ Г.М. Тарасюк. -2-ге вид.. -К.: Каравела, 2006.- 320 с.
7. Управління проектами [Текст] : навч. посібник / Г. М. Тарасюк. - 3-тє вид. - К. : Каравела, 2009. - 320 с.
8. Управління проектами: навч. посіб. / уклад.: Л. Є. Довгань [та ін.]. Київ: КПІ ім. Ігоря Сікорського, 2017. 420 с.
9. A Project Management Body Of Knowledge (PMBOK® Guide) 6th Edition (PMBOK Guides). – Project Management Institute, 2017. – 589 p.

### **Supporting literature**

1. Боковикова Ю. В. Проектний менеджмент в діяльності органів місцевого самоврядування. Державне будівництво. 2015. № 1. URL: [http://irbis-nbuv.gov.ua/cgi-bin/irbis\\_nbuv/cgiirbis\\_64](http://irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64).
2. Закон України «Про Порядок обміну інформацією між виконавцями державних цільових програм та координації цієї роботи» від 04.12.2009 № 1367. – Режим доступу: <https://zakon.rada.gov.ua/laws/show/z1251-09#Text>
3. Іванова Т. В. Методологія проектного підходу в реалізації стратегічних пріоритетів сервісно-орієнтованої держави. Інвестиції: практика та досвід. 2019. № 11. С. 82 – 85.
4. Луценко С. М. Використання проектних технологій для удосконалення інформаційного забезпечення органів публічної влади [Електронний ресурс] / С.М. Луценко // Публічне управління: теорія та практика: збірник наукових праць Асоціації докторів наук з державного управління. – Х. : Вид-во "ДокНаукДержУпр", 2011. – № 2(6). – С. 89-95. – Режим доступу: [http://www.nbuv.gov.ua/old\\_jrn/Soc\\_Gum/Pubupr/2011\\_2/doc/2/08.pdf](http://www.nbuv.gov.ua/old_jrn/Soc_Gum/Pubupr/2011_2/doc/2/08.pdf)

5. Минаєва Г. М. Управління проектною діяльністю органів місцевого самоврядування для зміцнення інфраструктури території / Г. М. Минаєва // Теорія та практика державного управління : Наук. фах. видання. – Вип. 3 (34). – 2011. – С. 1–7.

6. Молоканова В. М. Публічне управління регіональними програмами розвитку на засадах проектного менеджменту / В. М. Молоканова // Результат-орієнтовані підходи, інструменти та технології в публічному управлінні: матеріали наук.-практ. конф. за міжн. участю, 26 жовтня 2012 р., Дніпропетровськ. – Д. : ДРІДУ НАДУ, 2012. – 135 с. – С. 99-101.

7. Олійник Р. Ю. Проектний менеджмент: особливості ключових концептів та застосування у публічному секторі. Право та державне управління. 2019. № 2(35), т. 2. С. 147 – 151.

8. Повна С. В. Методологія проектного менеджменту в управлінні державними інвестиційними проектами. Публічне адміністрування: наукові дослідження та розвиток. 2017. № 1(3). С. 101 – 107.

9. Подольська О. В., Краля В. Г. Використання проектного підходу в публічній сфері. Вісн. Харків. нац. техн. ун-ту сільського господарства ім. Петра Василенка. 2019. Вип. 200. С. 256 – 264.

10. Рудніцька Р. М. Перспективи використання управління за результатами для підвищення ефективності державного управління / Р. М. Рудніцька // Ефективність державного управління : зб. наук. пр.; за заг. ред. А. О. Чемериса. – Вип. 8. – Львів : ЛРІДУ НАДУ, 2005. – С. 307–315.

11. Glossary of Project Management Terms. – <http://www.uc.edu/sashtml/orpm/chapa/index.htm>.

12. <http://www.apm.org.uk/> — Association for project management.

13. International Journal of Project Management. – [www.elsevier.com/locate/ijproman](http://www.elsevier.com/locate/ijproman).

#### **Information resources**

1. Система дистанційного навчання НУ «Чернігівська політехніка». Курс: Управління проектами – [Електронний ресурс]. – Режим доступу : <https://eln.stu.cn.ua/course/view.php?id=1261>

2. Національна бібліотека України ім. В.І.Вернадського // <http://www.nbuv.gov.ua>.

3. Офіційна Інтернет-сторінка Верховної Ради України <http://www.portal.rada.gov.ua>.

4. Офіційна Інтернет-сторінка Міністерства економіки України // <http://www.me.gov.ua>.

5. Офіційна Інтернет-сторінка Міністерства фінансів України // <http://www.minfin.gov.ua>.

6. Офіційна Інтернет-сторінка Державного комітету статистики України <http://www.ukrstat.gov.ua>.