

**NATIONAL UNIVERSITY OF LIFE AND ENVIRONMENTAL SCIENCES
OF UKRAINE**

Department of production and investment management



“ENDORSED”

by the department's meeting of
production and investment management

Record № 9 dated on “27” April 2022

Head of the Department

_____ Dielini M.M.

«CONSIDERED»

Guarantor of the educational program

*“Management of investment activity and
international projects”*

Guarantor of the educational program

_____ L.V. Shynkaruk

**Work program of the academic discipline
INFORMATION TECHNOLOGIES IN PROJECT MANAGEMENT:
SCRUM, AGILE, MS-PROJECT IN PROJECTS ADMINISTRATION**

Specialty: 073 «Management»

Academic program: Management of investment activities and international projects

Faculty of agrarian management

Developer : Orekhivskyi V.G, Ph.D,

Associate professor, department of production and investment management

Kyiv - 2022

**1. Course description: information technologies in project management:
Scrum, Agile, MsProject in projects administration**

Field of knowledge, specialty, educational program, educational degree		
Academic degree	Master	
Specialty	073 Management	
Academic program	Management of investment activities and international projects	
Characteristics of the discipline		
View	Required	
Total hours	35	
Number of ECTS credits	4	
Number of content modules	-	
Course project (work)	30	
Form of control	exam	
Indicators of academic discipline for full-time and part-time study		
	full-time study	part-time study
Year of preparation	2	
Semester	2	
Lectures	-	
Practical, seminar classes	-	
Laboratory classes	-	
Individual work	60	
Individual tasks	-	
Number of weekly classroom hours for full-time study	2 hours	

2. Purpose, tasks and competencies of the discipline

The purpose of the discipline: to provide students with fundamental and systematic knowledge about the contemporary information technologies in project management as key factors in streamlining modern life.

The tasks of studying the discipline is theoretical and practical training of students on:

- 1) obtaining thorough knowledge of the objective laws of the functioning of the information system for projects support, as well as skills of their practical use;
- 2) acquisition of professional skills to apply the methodological tools of Scrum, Agile, MsProject tools for project management;
- 3) mastering the content of basic terms, concepts and categories of information technologies;
- 4) understanding the objective nature of the laws and patterns of projects, the objective conditionality of its principles and functions;
- 5) mastering a set of methods, forms and mechanisms for managing informational processes and at the micro and macro levels of modern society;

As a result of studying the discipline the student should **know**:

- Theoretical foundations of information projects, modern research approaches in IT sphere,

Upon completion of the discipline the students should **be able to**:

- Gain skills *to* application of information technologies such as Scrum and Agile for project management, collection and analysis methods; group work and public discussion; practical implementation in Ukraine and abroad.

Acquisition of competencies:

General competencies:

- Ability to think abstractly, search, process, analyze, synthesize and establish relationships between events and processes
- Ability to use information and communication technologies to search, process, analyze information from various sources and make decisions.
- Ability to learn, master modern knowledge and apply it in practical situations.
- Ability to conduct research, evaluate and ensure the quality of work performed, make informed decisions and generate new ideas.
- Ability to adapt and act in a new situation, identify, set and solve problems

- Ability to organize and motivate people to move towards a common goal, work in a team, show initiative and entrepreneurship, act on ethical considerations
- Ability to communicate in a foreign language, work in an international context, use information and communication technologies

Special (professional, subject) competencies:

- Ability to organize the collection of necessary information, to analyze it for further development of the business plan
- Ability to effectively manage international projects
- Ability for self-development, lifelong learning and effective self-management in project management.
- Ability to carry out the formation of investment resources
- Ability to analyze modern investment activities and international business.
- Ability to make management decisions in the management of investment activities and international projects.
- Ability to manage real and financial investments.
- Ability to evaluate the effectiveness of programs and investment projects.
- Ability to find and attract various sources and tools for project financing.

3. Program and structure of the discipline for: Information technologies of project management: Scrum, Agile, MsProjects (Topics are optional)

Names of content modules and topics	Number of hours												
	Full-time							Part-time					
	weeks	total	including					total	including				
			L	P	lab	ind	s.r.		L	P	lab	ind	s.r.
1	2	3	4	5	6	7	8	9	10	11	12	thirteen	14
MODULE 1. INFORMATION SYSTEMS AND TECHNOLOGIES IN PROJECT MANAGEMENT													
Topic 1. The role and importance of information technologies in project management													
Topic 2. Traditional and Agile-methodology in project management													
Topic 3. Self-organized teams and Scrum technology													
Topic 4. Methodologies Kanban, XP, Lean													
Total, Module 1													
MODULE 2. MANAGEMENT OF THE CORE PROJECT COMPONENTS													
Topic 5. Managing project teams													
Topic 6. Managing project contracts and performance													
Topic 7. Evaluation of project quality and possible risks													
Topic 8. Projects integration and automation													
Total, Module 2													

Total												
Course project (work) <i>(if available in the working curriculum)</i>	30	-	-	-	-	-	-	-	-	-	-	-
Exam	5											
Total, hours	35											

4. Topics of seminars

No s / n	Name topics	Number hours
1		
2		
...		

5. Topics of practical classes / Practice study topics *(optional)*

No s / n	Name topics	Number hours
1	Concepts and ideas to create a social enterprise	
2	Practical value of social project	
3	Marketing investigation of social projects	
4	Analysis of target markets, evaluation of ideas and motivational component of social projects	
5	Lean-up test of social project	
6	Development of business-model for social project and presentation	

6. Topics of laboratory classes

No s / n	Name topics	Number hours
1	Guidance and support of students in preparation of Course-work during the semester	
2		
...		

7. Test questions, sets of tests to determine the level of knowledge acquisition by students (example)

- 1) Modernization of the education system: own proposals and forecasts (on the example of Ukraine or country of your origin)
- 2) Project management with Microsoft Project.
- 3) Basic concepts of project management.
- 4) Review of project management systems.
- 5) Structural planning. Calendar planning. Operational management.
- 6) Features of task planning in Microsoft Project 2016.
- 7) Creating a project and setting its parameters
- 8) Atlassian Jira Project Management Cloud Service
- 9) SCRUM Technologies
- 10) Agile-Manifesto Principles

8. Teaching methods

Combination of seminars and practical classes according to the schedule. Presentations and graphics for better learning materials. Conducting business games and case studies. Providing information from own practical experience, analysis of current legislation of Ukraine on the regulation and application of information technologies in project management. Use of specialized online platforms for modeling projects and developing scenarios for their practical application.

Practical and case studies. During the semester students conduct practical research according to the algorithm: search for ideas, creation, development and possible practical implementation of a project. Emphasis is on using project management IT tools, such as Agile and MsProjects.

Writing of course-work and a final presentation for defense, as a result of practical research.

9. Forms of control

Criteria for assessing the implementation of educational tasks is one of the main ways to test the knowledge, skills and abilities of students. When evaluating tasks, the completeness and correctness of their performance should be taken as a basis. The following skills and abilities of students should be taken into account:

There are two intermediate forms of monitoring student performance, after completing the course-work. Final defense and exam at the end of the semester.

10. Distribution of points received by students

Assessment of student knowledge is on 100-point scale, to be translated into national system in accordance with Table 1 "Regulations on examinations and tests in NULES of Ukraine" (Order dd. 27.12.2019 № 1371)

Students ratio, points	National evaluation	
	Exams	offsets
90-100	Excellent	90-100

74-89	Good	74-89
60-73	Satisfactory	60-73
0-59	Non-satisfactory	0-59

To determine the rating of the student (listener) for mastering the discipline $R_{\text{дис}}$ (up to 100 points), the ratio obtained for attestation (up to 30 points) to be added to the rating of the student for educational work $R_{\text{НР}}$ (up to 70 points): $R_{\text{дис}} = R_{\text{НР}} + R_{\text{АТ}}$

Students who have successfully completed the discipline, fulfilling all the requirements of the working curriculum, are awarded ECTS credits for the discipline working curriculum. ECTS credits are recorded in the journal of rating assessment of student knowledge.

11. Methodical support

Educational and methodical complexes of studying disciplines (work programs, illustrative materials). Methodical instructions for studying the discipline, data in the form of P.Point presentations.

12. Literature:

1. Сорока П.М., Балан В.Г., Глазунова О.Г., Харченко В.В. Інформаційні системи і технології в менеджменті: Методичний посібник. - К.: НАУ, 2006. -160 с.
2. Сорока П.М., Сорока Б.П. Аналіз, моделювання та управління ризиками: Навч. посібник/ За ред. д.е.н., проф. О.Д. Гудзинського. - К.: Університет «Україна», 2011. - 270 с.
3. Тарасюк Г. М. Управління проектами: Навч. посіб. для студентів вищих навчальних закладів. 2-е вид. - К.: Каравела, 2006. - 320 с.
4. Управління проектами: Навч. посіб. / За ред. О.В. Ульяновченка та П.Ф. Цигікала. - Харків: ХНАУ ім. В.В. Докучаєва, 2010. - 522 с.
5. Богданов В. В. Управление проектами в Microsoft Project: Учебный курс / 2002. - СПб: Питер, 2003. - 640 с

13. Інформаційні ресурси (за наявності)

1. SCRUM Technologies: <https://www.youtube.com/watch?v=2Vt7Ik8Ublw>
https://www.youtube.com/watch?v=iJ_sl6J8PRg
2. Agile Instruments: <https://ru.atlassian.com/software/jira/agile>

