



Syllabus Course Program



Fundamentals of Project Management.

Specialty

073 – Management

Institute

Institute of Education and Science in Economics, Management and International Business

Educational program

Management of organizations and administration

Department

Management (204)

Level of education

Bachelor's level

Course type

Profile training

Semester

7

Language of instruction

English

Lecturers and course developers

**Anastasiia Mytrofanova**

Anastasiia.Mytrofanova@khpi.edu.ua

PhD (Economics), Associate Professor of Management Department, Associate Professor

Authored and co-authored over 60 scientific publications. Courses: Project Management, Fundamentals of Project Management.

General information

Summary

The course is devoted to the understanding and using the key concepts to project management via team work in selected by students' field and/or initiated by students projects to implement the project management frames and software, and develop the creative thinking for business and social purposes.

Course objectives and goals

The course is based on mastering approaches to students understanding of the terms, concepts in project management; to organize and motivate people to move to a common purpose, to work in a team; to identify and solve problems, generate new ideas; to manage the organization, its changes; to develop projects and manage them, to detect initiative and entrepreneurship.

Format of classes

Lectures - 32 h., Workshops - 32 h., self-study - 56 h. Exam is the form of the final control.

Competencies

GC03. The ability for abstract thinking, analysis, synthesis.

GC05. Knowledge and understanding of the subject area and understanding of the professional activity.

GC09. The ability to learn and to master modern knowledge.

GC12. The ability to generate new ideas (creativity).

SC04. The ability to determine the functional areas of an organization and the relationships between them.

SC08. The ability to plan the organization activity and to manage time.

SC16. The ability to identify and analyze organizational problems, make informed and well-grounded decisions regarding organizational activities, operational strategies and organizational behavior.

SC2.1. The ability to apply principles of IT- company management using the project and process approaches

Learning outcomes

LO 03. To demonstrate knowledge of theories, methods and functions of management, modern concepts of leadership.

LO 05. To describe the content of the functional areas of an organization.

LO 07. To demonstrate the skills of organizational planning.

LO 08. To apply management methods for ensuring the effectiveness of an organization.

LO 16. To demonstrate skills of independent work, flexible thinking, openness to new knowledge, to be critical and self-critical.

LO 18. To demonstrate skills related to the identification and analysis of organizational problems, making of well-grounded organizational decisions, development of operational strategies and planning of organizational behavior.

LO2.3. To demonstrate knowledge of project management methodologies; conduct project analysis; define project goals and results.

Student workload

The total volume of the course is 120 hours (4 ECTS credits): lectures - 32 hours, Workshops - 32 hours, self-study - 56 hours.

Course prerequisites

To successfully complete the course, it is necessary to have knowledge and practical skills from the following courses: "Fundamentals of management", "Organizational theory", "Human resource management".

Features of the course, teaching and learning methods, and technologies

Teaching methods include interactive lectures with presentations and discussions. To conduct seminars different tools and techniques will be used: analysis of problematic issues, solving tests and their discussion, doing the economic exercises, the project work using handouts; presentation and discussion of reports. Also, case studies, problem-based learning, peer-to-peer, teamwork are usually implemented.

Program of the course

Topics of the lectures

Topic 1. General Principles of Modern Project Management.

1. Concept and main characteristics of the project.
2. Classifications of projects.
3. The concept of project life cycle and its stages.
4. Project environment and its stakeholders.
5. Processes and methods of project management. PMBOK.

Topic 2. Initiation and Planning of a Project. Project Structuring.

1. Initiation of a project.
2. Components of a project planning system.
3. General characteristics and significance of project structuring.
4. Methodological foundations of project structuring.

Topic 3. Time Planning and Scheduling in Project Management.

1. Scheduling project work.
2. Introduction to Gantt charts.
3. Network diagrams.
4. Critical Path Method (CPM) and Method of Program Evaluation and Review Technique (PERT).

Topic 4. Resource Management of a Project.

1. Project resources and their types.
2. Resource planning. Types of Resource Constraints.
3. Costs and budgeting.
4. Financing Sources. Crowdfunding.
5. Evaluation of Investment Attractiveness. KPIs.

Topic 5. Risk Management.

1. Concept of Risk. Risks Assessment.
2. Risk strategies. Scenario Planning.

Topic 6. Managing the Project Team.

1. Team Building Process.
2. Team Roles and responsibilities.
3. Motivation. Team Canvas.
4. Leadership.

Topic 7. Project Monitoring and Control.

1. Monitoring the project. Project Dynamics.
2. Controlling the project.

Topic 8. Evolution and Prospects of Modern Project Management.

1. Project Management: Traditional Approach and Waterfall.
2. Agile Manifesto.
3. SCRUM: roles, product and sprint backlogs, meetings.

Topic 9. Design Thinking.

1. Design Thinking.
2. Design Thinking Process: IDEO.
3. Design Kit.
4. Creative Confidence.

Topics of the workshops

Topic 1. Introductory Class. Individual Assignment. General Principles of Modern Project Management.

Topic 2. Initiation and Planning of a Project. Project Structuring. WBS. Deliverables and milestones.

Topic 3. Time Planning and Scheduling in Project Management. Gantt charts. Critical Path Method.

Topic 4. Resource Management of a Project. Project Budget.

Topic 5. Risk Management: Risks Assessment, Scenarios. Risk Register.

Topic 6. Managing the Project Team. Belbin's roles. RACI matrix.

Topic 7. Project Monitoring and Control.

Topic 8. Evolution and Prospects of Modern Project Management. Agile. SCRUM.

Topic 9. Design Thinking. Design Thinking Process: IDEO.

Topics of the laboratory classes

no laboratory classes.

Self-study

PM course project is a creative, independent, completed, theoretical and practical work of the student team on the proposed topics, which is performed on the basis of the principles and methods of project management.

To perform PM course project the following steps should be done:

Choose any topic. Build the team (4-5 persons). Create Team Canvas.

Define and background methodology for PM.

Choose software/platform for team collaboration and progress management.

Manage the progress. Define project value for stakeholders, aim, tasks, scopes, resources, risks, and KPIs.

Report the project (with screenshots about project dynamics).

Course materials and recommended reading

1. Fundamentals of PM (Joseph Heagney, AManA 2012), URL :

- [https://www.nesacenter.org/uploaded/conferences/SEC/2014/handouts/Rick Detwiler/15 Detwiler Resources.pdf](https://www.nesacenter.org/uploaded/conferences/SEC/2014/handouts/Rick%20Detwiler/15%20Detwiler%20Resources.pdf)
2. PMBOK® Guide - Seventh Edition , URL: <https://www.pmi.org/pmbok-guide-standards/foundational/pmbok>
 3. Scrum: The Art of Doing Twice the Work in Half the Time Hardcover - September 30, 2014 by Jeff Sutherland
 4. SCRUM Approach for Project Management: Introduction to Scrum (CollabNet), URL: <http://www.youtube.com/watch?v=D8vT7G0WATM&list=UURtffRo2G Vp8pPFgqDKVwQ&index=1&feature=plcp>
 5. Divergent vs Convergent Thinking - RISE Beyond, URL: <https://www.risebeyond.org/divergent-vs-convergent-thinking/>
 6. Design Kit: <http://www.designkit.org/>
 7. David Kelley, Tom Kelley Creative Confidence: Unleashing the Creative Potential Within Us All: Crown Business; 1 edition, 2013. - 304 p.
 8. Robert S. Kaplan and Anette Mikes Managing Risks: A New Framework , URL: <https://hbr.org/2012/06/managing-risks-a-new-framework>
 9. Internal Rate of Return (IRR) , URL: <https://corporatefinanceinstitute.com/resources/valuation/internal-rate-return-irr/>
 10. Key Performance Indicator (KPI): Meaning, Types, Examples, URL: <https://www.investopedia.com/terms/k/kpi.asp>
 11. Project management: the managerial process / Erik W. Larson, Clifford F. Gray. —5th ed. p. cm. —(The McGraw-Hill/Irwin series, operations and decision sciences), 2011.

Assessment and grading

Criteria for assessment of student performance, and the final score structure

- 100% Final assessment as a result of Final test (30%) and Continuous assessment (70%).
 30% Final test: written assignment
 70% Continuous assessment:
- 35% course project;
 - 35% term control (2 online tests).

Grading scale

Total points	National	ECTS
90–100	Excellent	A
82–89	Good	B
75–81	Good	C
64–74	Satisfactory	D
60–63	Satisfactory	E
35–59	Unsatisfactory (requires additional learning)	FX
1–34	Unsatisfactory (requires repetition of the course)	F

Norms of academic integrity and course policy

The student must adhere to the Code of Ethics of Academic Relations and Integrity of NTU "KhPI": to demonstrate discipline, good manners, kindness, honesty, and responsibility. Conflict situations should be openly discussed in academic groups with a lecturer, and if it is impossible to resolve the conflict, they should be brought to the attention of the Institute's management.

Regulatory and legal documents related to the implementation of the principles of academic integrity at NTU "KhPI" are available on the website: <http://blogs.kpi.kharkov.ua/v2/nv/akademichna-dobrochesnist/>

Approval

Approved by

Date, signature

Head of the department
Olena PROKHORENKO

Date, signature

Guarantor of the educational
program
Olena LINKOVA

