

Land Governance Master programmer

Discipline “***Projects Management***”

Responsible university

Donetsk National Technical
University

Course is developed by

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Projects Management

Integrative module

Total ECTS - 4

Is studied in

1st year

1st term

for Technical and Agrarian

Universities



Basis for learning

- General subjects (higher mathematics, computer science)
- Economic subjects (economics, accounting)



Aim and objectives of the course

The aim of the course is to give future engineers fundamental knowledge in basic directions of project management, and also to acquire skills of adaptation and practical application of project decisions.

Basic tasks of the course are:

- performing framed knowledge in the theory of project management;
- introduction in modern conception of project management with the best domestic and foreign project's application experience in market economy;
- forming of abilities on projects preparation, implementation and closing-out;
- analyze of a current status of project execution and acceptance of a timely, grounded and competent decision concerning a project;
- receipt of skills on projects implementation in different areas of state administration and use of projects' management facilities and tools;
- development and realization of definite events and its application in the current activity.



Projects Management

Total hours	Classroom total/ hours	lectures	practice	Exam/ hours	individual student's work	% of class rooms
144	48	32	16	-	96	0,3



Course syllabus

N	Topic titles	Number of hours		
		Total	Lectures	Pract./exercises
1.	Introduction in Projects' Management	2	2	-
2.	Organizational structure of Projects' Management	4	2	2
3.	Project's external organizational structure	2	2	-
4.	Project's internal organizational structure	2	2	-
5.	Planning of the project's maintenance	4	2	2
6.	Work sequence planning	4	2	2
7.	Scheduling	4	2	2
8.	Methods of costs planning	4	2	2



Course syllabus

9.	Project's account and realization control	2	2	-
10.	Control methods of the project's realization	2	2	-
11.	Project risks and its classification	4	2	2
12	Methods and tools of risks management	2	2	-
13	Project's quality management	2	2	-
14	Control and quality assurance methods	4	2	2
15	Project teams management	2	2	-
16	The audit and the project close-out	4	2	2
	Total:	48	32	16



Structure of the lectures

Lecture 1. Fundamentals of Projects' Management

Development history. Projects' concept and kinds. Fundamentals of Projects' Management Project aspects (terms, costs, quality). Project's life cycle. Project's Management functions.

Lecture 2. The organization of a project's control system.

Concept of Project's Management organizational structure. Organization tag. Distinction between projects' organizational structures. Types of the projects' organization. The project's specification. Duty instructions. The functional duties schedule. The estimate and the budget. Control over the project's modification.


Lecture 3. Project's external organizational structure.

Essence and basic forms of external organizational structure. Design principles and forms of a project's external organizational structure. Main conditions of creation and use.

Lecture 4. Project's internal organizational structure.

Essence and basic forms of internal organizational structure. Design principles and kinds. Conditions and use aspects of a project's internal organizational structure.





Lecture 5. Project planning of the maintenance.

The purpose and functions of the project planning. Planning levels. Structure of works' splitting. Working out of a responsibility matrix. Definition of the basic marks of planning.

Lecture 6. Works' sequence planning

Network planning: designing of the project's network graph, detection of a critical way and slacks for separate parts of project execution.

Projects' scheduling (Gant's schedules). A probabilistic assessment of the project's execution time.

Lecture 7. Scheduling

Planning stages and kinds of schedules. Procedure of schedule design. Relations between budgeted and scheduled ing. Resource planning.

Lecture 8 Methods of costs planning

Main principles project's cost management. Project's cost estimation. A stage-by-stage project's budget estimation during its preparation. The initial data for project estimation. Control methods of the project's cost.



Lecture 9. Project's account and realization control.

Basic elements of project control. Importance of project's account and control. Project's account planning. The stage-by-stage results account. Control of schedules execution and divisions' budget.

Lecture 10. Control methods of the project's realization

Method of admissible borders. The analysis of stocked goods. Account with the S-shaped curve method. A surplus value method. Reports on results of inspections and working meetings organization. Development of correcting influences. Performance monitoring in time on expenses.

Lecture 11. Project risks and its classification

Typical project risks, its interconnection. Risks forecasting, identification and estimation at the stages of the project planning. Risks of the project's participants. Risks forecasting, detection and estimation at the stage of the project realization. Project risks management tools.

Lecture 12. Methods and tools of risks management.

Risks management methods. Sorts of risks management analysis. Tools of risks management. Ways of project risks reduction. Risks insurance.



Lecture 13. Project's quality management.

The modern concept of the project's quality management. Tasks and the aims of the project's quality management. Quality functions structure. Systems of the international standards.

Lecture 14. Control and quality assurance methods

A task group method. A forces analysis method. The Ishikava diagram. The paretic analysis. An aggregate amount method.

Lecture 15. Project teams management

Five-step model of a team development. The team development influencing factors. Principles of team organization. Creation of a high-performance project team. Conflicts between team members and its effective shooting.

Lecture 16. The audit and the project close-out

Information gathering and its analysis. Audit and peopleware. Project's close-out conditions. Signals for continuation or pre-schedule project close-out. Close-out decision. Team and team members estimation.



Structure of the practice work

№	Practice	h.
1	Drawing up of the project's organizational diagram	2
2	Working out of the project's network schedule	2
3	Drawing up of the schedule diagram of the project	2
4	Resources planning. The Gantt diagram	2
5	The project's cost planning	2
6	The project's budget planning	2
7	The project's risks' analysis	2
8	Preparation of reports under the project	2
		16

List of literature

- Шапиро В.Д. и др. Управление проектами. Учебник для вузов – СПб.: «ДваТри», 1996.
- Управление проектами. Толковый англо-русский словарь – справочник / Под ред. проф. В.Д. Шапиро. М.: «Высшая школа», 2000.
- Управление инвестициями: В 2-х тт. / В.В.Шеремет, В.М. Павлюченко, В.Д. Шапиро и др. – М. Высшая школа, 1998.
- Мазур И.И., Шапиро В.Д. Реструктуризация предприятий и компаний. Справочное пособие – «Высшая школа», М., 2000.
- Мазур И.И., Шапиро В.Д. Управление проектами. Справочное пособие. М.: Высшая школа, 2001.
- Воропаев В.И., Управление проектами в России. - М.: «Аланс», 1995, с.225.
- Кочетков А.И., Никешин С.Н. и др. Управление проектами. Зарубежный опыт.- СПб.: « Два Три», 1993.- 443 с.
- Бурков В.Н., Новиков Д.А.. Как управлять проектами. - М.: «СИНТЕГ-ГЕО», 1997.



9. Ильин Н.И., Лукманова И.Г. и др. Управление проектами. - СПб.: «ДваТри», 1996. - с.610.

10. Путеводитель в мир управления проектами. Пер. с англ., Екатеринбург: УГТУ, 1998, с.192.

11. Gary R. Heerkens, Project Management, McGraw-Hill, 2001, p. 250.

12. Kim Heldman, Project Management Professional Exam study Guide (5th Edition), Sybex, 2009, p.677.

13. Harold Kerzner, Project Management: A Systems Approach to Planning, Scheduling, and Control, WILEY, 2009, p. 1122.

