SYLLABUS
Fall semester 2023-2024 academic year
Educational program "UPHI7301 - Project management for chemistry engineers, UPHT7301 - Project management for chemistry technologists"

ID and name of course	Independent work of the student (IWS)	Number of credits			General number of credits	Independent work of the student under the guidance of a teacher (IWST)
		Lectures (L)	Practical classes (PC)	Lab. classes (LC)		
UPHI7301 - Project management for chemistry engineers, UPHT7301 - Project management for chemistry technologists	IWD - 3	15	6	15	5	IWDT - 6

ACADEMIC INFORMATION ABOUT THE COURSE				
Learning Format	**Cycle, component**	**Lecture types**	**Types of practical classes**	**Form and platform final control**
Online	1	Traditional, PPT	tests, tasks, case studies, practical tasks on the use of project management tools	Written online, 'Univer' platform
Lecturer - (s)	Khaidar Uali Naukatuly, MBA, PMP			
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ACADEMIC COURSE PRESENTATION		
Purpose of the course	**Expected Learning Outcomes (LO) ***	**Indicators of LO achievement (ID)**
To develop basic competence on professional project management	1. To know and understand the basics of project management based on the Kazakhstani standard ST RK ISO 21500-2014	1.1 understand the content of the standard
		1.2 understand the basic terms and definitions of the standard
		1.3 understand the logic and communication between the processes of the standard
	2. To distinguish professional project management (PM) from everything else	2.1 distinguish between the basics of professional project management (PMP)
		2.2 distinguish in which projects it is necessary to use PUP tools
		2.3 know 39 PM processes according to ST RK ISO 21500-2014
	3. To master 5 process groups and 10 PM knowledge areas	3.1 master 5 process groups of UE
		3.2 master 10 PM knowledge areas
		3.3 distinguish between processes and PM subject groups
	4. To link process groups and knowledge areas of NC with practical applications in chemical engineering and technology	4.1 establish links between process groups and PM knowledge areas
		4.2 know how to apply PM tools for projects in the field of chemical engineering and technology
		4.3 master PM tools for projects in the field of chemical engineering and technology
	5. To put into practice the tools of PM on examples and practical tasks	5.1 solve practical tasks and examples
		5.2 demonstrate an understanding of

		the progress of solving problems and practical tasks
Prerequisites	Basic knowledge of general management, mathematics and statistics	
Postrequisites	Entry level knowledge and skills of professional project management	
Learning Resources	**Literature:** main, additional. 1. Шапиро, В.Д. Управление проектами: Учебное пособие для студентов / И.И. Мазур, В.Д. Шапиро, Н.Г. Ольдерогге; Под общ. ред. И.И. Мазур. - М.: Омега-Л, 2014 2. Кузнецов А. А. Процессное управление проектами на предприятии // Менеджмент сегодня. 2011 3. Гончаренко С. Управление проектами // Управление качеством. – 2011 4. Harold Kerzner, Ph.D., Project Management: A Systems Approach to Planning, Scheduling, and Controlling, Wiley, 11th ed., 2013 5. A Guide to the Project Management Body of Knowledge: PMBOK® Guide (Sixth Edition), PMI, 2017 6. Jack Ferraro, Project Management for Non-Project Managers Hardcover, AMACOM; First edition, 2012 7. Kim Heldman, PMP, Project Management JumpStart, Sybex, 3rd Edition, 2011 Интернет ресурсы (не менее 3-5) 1. http://elibrary.kaznu.kz/ru 2. http://projectimo.ru/upravlenie-proektami/proektnyj-metod.html 3. https://www.youtube.com/user/sofonov/videos **Software** 1. MS Teams	

Academic course policy	The academic policy of the course is determined by the Academic Policy and the Policy of Academic Integrity of Al-Farabi Kazakh National University . Documents are available on the main page of IS Univer. **Integration of science and education.** The research work of students, undergraduates and doctoral students is a deepening of the educational process. It is organized directly at the departments, laboratories, scientific and design departments of the university, in student scientific and technical associations. Independent work of students at all levels of education is aimed at developing research skills and competencies based on obtaining new knowledge using modern research and information technologies. A research university teacher integrates the results of scientific activities into the topics of lectures and seminars (practical) classes, laboratory classes and into the tasks of the IWST, IWS, which are reflected in the syllabus and are responsible for the relevance of the topics of training sessions and assignments. **Attendance.** The deadline for each task is indicated in the calendar (schedule) for the implementation of the content of the course. Failure to meet deadlines results in loss of points. **Academic honesty.** Practical/laboratory classes, IWS develop the student's independence, critical thinking, and creativity. Plagiarism, forgery, the use of cheat sheets, cheating at all stages of completing tasks are unacceptable. Compliance with academic honesty during the period of theoretical training and at exams, in addition to the main policies, is regulated by the "Rules for the final control" , "Instructions for the final control of the autumn / spring semester of the current academic year" , "Regulations on checking students' text documents for borrowings". Documents are available on the main page of IS Univer. **Basic principles of inclusive education.** The educational environment of the university is conceived as a safe place where there is always support and equal attitude from the teacher to all students and students to each other, regardless of gender, race / ethnicity, religious beliefs, socio-economic status, physical health of the student, etc. All people need the support and friendship of peers and fellow students. For all students, progress is more about what they can do than what they can't. Diversity enhances all aspects of life. All students, especially those with disabilities, can receive counseling assistance by phone / e- mail Uali.Khaidar@kaznu.kz, haidarualy@gmail.com or via video link in MS Teams (the link is provided for each class separately). **Integration MOOC (massive open online course).** In the case of integrating MOOC into the course, all students need to register for MOOC. The deadlines for passing MOOC modules must be strictly observed in accordance with the course study schedule. **ATTENTION!** The deadline for each task is indicated in the calendar (schedule) for the implementation of the content of the course, as well as in the MOOC. Failure to meet deadlines results in loss of points.

INFORMATION ABOUT TEACHING, LEARNING AND ASSESSMENT

Score-rating letter system of assessment of accounting for educational achievements				**Assessment Methods**
Grade	**Digital equivalent points**	**points, % content**	**Assessment according to the traditional system**	**Criteria-based assessment** is the process of correlating actual learning outcomes with expected learning outcomes based on clearly defined criteria. Based on formative and summative assessment.

A	4.0 _	95-100	Great	**Formative assessment is** a type of assessment that is carried out in the course of daily learning activities. It is the current measure of progress. Provides an operational relationship between the student and the teacher. It allows you to determine the capabilities of the student, identify difficulties, help achieve the best results, timely correct the educational process for the teacher. The performance of tasks, the activity of work in the classroom during lectures, seminars, practical exercises (discussions, quizzes, debates, round tables, laboratory work, etc.) are evaluated. Acquired knowledge and competencies are assessed. **Summative assessment** - type of assessment, which is carried out upon completion of the study of the section in accordance with the program of the course. Conducted 3-4 times per semester when performing IWD. This is the assessment of mastering the expected learning outcomes in relation to the descriptors. Allows you to determine and fix the level of mastering the course for a certain period. Learning outcomes are evaluated.
A-	3.67	90-94		
B+	3.33	85-89	Fine	
B	3.0	80-84		**Formative and summative assessment** / **Points % content**
B-	2.67	75-79		Activity at lectures: 10
C+	2.33	70-74		Independent work: 20
C	2.0	65-69	Satisfactorily	Midterm testing: 10
C-	1.67	60-64		Application of PM tools on the example of a training project: 20
D+	1.33	55-59	Unsatisfactory	Final control (exam): 40
D	1.0	50-54		TOTAL: 100

Calendar (schedule) for the implementation of the content of the course. Methods of teaching and learning.

Week	Title of a topic	Number of hours	Max point
	Module 1 – Basics of project management		
1	**L1** "Basic definitions of project management"	2	0
	Lab1 "Assignment to project manager and his team" Choosing training project	1	5
2	**L2** "Project management standards, Kazakhstan PM standard ISO 21500:2014"	1	0
	Lab2 "Developing organizational structure of training project"	1	5
	PT1 "Finding out external factors affecting project"	1	5
3	**L3** "Project life cycles and phases"	2.5	0
	Lab3 "Developing project cycle for training projects"	0.5	5
4	**L4** "Project environment"	1	0
	Lab4 "Building training project mind map"	1	10
	PT2 "Solving problems on selecting projects for implementation using financial criteria"	1	10
5	**L5** "Project groups and subject areas"	1	0
	Lab5 "Dividing training project into phases"	1	10
	Submission of IWDT: Consulting on IWD No.1 - selecting project using financial criteria (NPV, IRR & payback period); building project management life cycle for training projects;		20
	Module 2 – Project management subject areas, part 2		
6	**L6** "Project integration management"	2	0
	Lab6 "Developing training projects charter"	1	10
7	**L7** "Project stakeholders management"	1	0
	Lab7 "Determining training projects stakeholders and filling in matrix "	1	10
	Control work 1	1	10
	Milestone test	**1**	**100**
8	**L8** "Project resources management"	2	0
	Lab8 "Determining training projects HR resources and filing in RACI matrix"	1	5
9	**L9** "Project scope management with from chemistry engineering"	1	0
	Lab9 "Developing training projects WBS"	1	5
10	**L10** "Project time management " **Lab10** Developing a Project Schedule Using the PDM Method	1 1.5	0 5

	PT3 Identification and discussion of the applicability of the PDM method for projects in the field of chemistry engineering & technology **Submission of IW D T :** Consultation on the tasks of the IWD No. 2 - solution of training cases on integration, content, resources, timing and stakeholders of the project;	0.5	5 20
11	**L11** "Project cost management"	2	0
	Lab11 Discussion on applicability of project cost management methods for with from chemistry engineering	0.5	5
	PT4 "Solving problems on earned value method, EVM"	0.5	0
12	**L12** "Project risk management"	1	0
	Lab12 Considering risks in chemistry engineering	1	5
	PT12 "Determining training project risks and performing qualitative risks analysis "	1	0
13	**L13** "Project quality management"	1	0
	Lab13 "Determining training project quality defects using Pareto diagram"	1	5
	Control work 2	1	10
14	**L14** "Project procurement management"	1	0
	Lab14 "Determining training project procurement needs and filling in procurement plan"	1	5
	PT6 "Solving problems on point of total assumptions, PTA"	1	5
15	**L15** "Project communication management"	1	0
	Lab15 "Determining training project communication needs and filling communication matrix"	1	5
	Submission of IW D T : Consultation on the tasks of the IWD No. 3 cases on cost, risk, procurement and communication management issues; practical exercises on abovementioned four project management areas.		20
	Midterm control 2		**100**
	Final control (exam)		**100**
	TOTAL for course		**100**

Dean _____ A. Galeeva

Head of Department _____ A.Argimbayeva

Lecturer _____ K. Uali

RUBRICATOR OF THE SUMMATIVE ASSESSMENT

CRITERIA EVALUATION OF LEARNING OUTCOMES

Task name Application of project management tools on the example of a training project (20% of 100% MC)

Criterion	**"Excellent" 20-25 %**	**"Good" 15-20 %**	**"Satisfactory" 10-15 %**	**"Unsatisfactory" 0-10 %**
Understanding the theories and concepts of professional project management (PM)	Deep understanding of the theories and concepts of professional PM. Relevant and relevant links (citations) to key sources are provided.	Understanding theories, concepts of professional PM. Links (citations) to key sources are provided.	Limited understanding of theories, concepts of professional PM. Limited references (citations) to key sources are provided.	Superficial understanding / lack of understanding of theories, concepts of professional PM.
Application of the passed PM tools in a training project	All the PM tools learned in the classroom were applied in the training project. The links between the theory and practice of PM are clearly and clearly shown.	Almost all the PM tools learned in the classroom were applied in the training project. The links between the theory and practice of PM are clearly and clearly shown.	Limited use of the PM tools learned in the classroom was used in the training project. The connections between theory and practice of PM are presented satisfactorily.	Relevant links (citations) to key sources are not provided.
Proposed innovations and additional tools, knowledge and materials	The training project used at least 4-5 new PM tools from additional sources. Proposed 2-3 interesting ideas and new approaches to PM. Relevant and relevant links (citations) to key sources are provided.	The training project used 2-3 new tools from additional sources. 1-2 interesting ideas and new approaches to PM are proposed. Links (citations) to key sources are provided.	The training project used 1-2 new tools from additional sources. 1 interesting idea and a new approach to UE are proposed. Some links (citations) to key sources are provided.	The PM tools learned in the classroom are poorly applied in the training project. The connections between the theory and practice of PM are not clearly and indistinctly shown.
Style and method of presentation of the educational project	The presentation demonstrates clarity, conciseness and correctness. The presenter confidently presents the material and answers all questions.	The presentation as a whole demonstrates clarity, conciseness and correctness. The presenter generally confidently presents the material and answers questions.	There are some errors in the presentation and the clarity needs to be improved. Uncertainty in the presentation of the material and answers some questions.	In the training project, there is no use of new tools from additional sources. Not a single interesting idea and/or new PM approach has been proposed. Relevant links (citations) to key sources are not provided.