


FUNDAMENTALS OF PROJECT MANAGEMENT

COURSE SYLLABUS

Code and name of specialty	122 — Computer Science	Institute / faculty	Faculty of Computer Science and Software Engineering
Program name	«Computer Science and Intelligent Systems»	Department	Software Engineering and Management Information Technologies
Type of program	Educational and Professional	Language of instruction	Ukrainian, English

LECTURER

Name, E-mail	Nataliia Stratiienko, Nataliia.Stratiienko@khpi.edu.ua
	<p>Ph.D., Associate Professor, Professor of the Department of Software Engineering and Management Information Technologies, NTU «KhPI». Prepared and published more than 60 research papers, training manuals and textbooks (1 training manual recommended by the Ministry of Education and Science of Ukraine, 1 training manual recommended by the Academic Council of NTU "KhPI", 3 articles in publications indexed in Scopus) (Google Scholar: https://scholar.google.com/citations?user=9cw0zwwgAAAAJ&hl=ru; ORCID: https://orcid.org/0000-0002-7925-6687; Scopus: https://www.scopus.com/authid/detail.uri?authorId=57196007565).</p> <p>Leading lecturer of courses: <i>Fundamentals of the Theory of Algorithms, Algorithms and Data Structures, Computer Mathematics, Fundamentals of Project Management, Formation and Development of IT Project Teams (in Ukrainian and English)</i></p>

GENERAL DESCRIPTION OF THE COURSE

Summary	The course “Fundamentals of Project Management” is a course in the cycle of professional compulsory training of the specialty 122 “Computer Science”. It is taught in the eighth semester in the amount of 90 hours (3 ECTS credits), in particular: lectures – 20 hours, laboratory classes – 10 hours, self-study work – 60 hours. The course includes two modules and two modular tests. The study of the discipline ends with the exam.
Course objectives	This course objective is the formation of a modern system of views and special knowledge in the field of software project management, the acquisition of practical skills for their successful implementation.
Types of classes and control	Lectures, laboratory classes, self-study work. Final assessment – exam.
Term	8

Student workload (credits) / Type of course	3 / Mandatory	Lectures (hours)	20	Лабораторні роботи (години)	10	Self-study (hours)	60
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Program competences	<p>GC1. Ability to abstract thinking, analysis and synthesis.</p> <p>GC2. Ability to apply knowledge in practical situations.</p> <p>GC3. Knowledge and understanding of the subject area and understanding of professional activity.</p> <p>GC6. Ability to learn and master modern knowledge.</p> <p>GC7. Ability to search, process and analyze information from various sources.</p> <p>GC9. Ability to work in team.</p> <p>GC10. The ability to be critical and self-critical.</p> <p>GC11. Ability to make justified decisions.</p> <p>GC12. Ability to evaluate and ensure the quality of performed work.</p> <p>GC14. Ability to implement personal rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights, and freedoms in Ukraine.</p> <p>PC10. Ability to apply methodologies, technologies, and tools to manage the life cycle processes of information and software systems, information technology products and services according to customer requirements.</p> <p>PC20. Ability to develop the architecture of software systems and their particular components during the design of intelligent management systems in various fields, to manage the life cycle of intelligent management systems software.</p>
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Learning outcomes	Teaching and learning methods	Forms of assessment (continuous assessment CAS, final assessment FAS)
<p>PLO11. Have the skills to manage the life cycle of software, products, and services of information technology under the requirements and restrictions of the customer, be able to develop project documentation (feasibility study, technical task, business plan, agreement, contract).</p>	<p>Interactive lectures with presentations, discussions, laboratory classes, teamwork, case method, feedback method from students, problem learning</p>	<p>Written individual assignments for laboratory work (CAS), assessment of knowledge in laboratory classes (CAS), express - survey(CAS), online tests (CAS), final / semester control in the form of a semester test, in accordance with the schedule of the educational process (FAS)</p>
<p>PLO20. Develop the architecture of software systems and their particular components during the construction of intelligent management systems in</p>	<p>Interactive lectures with presentations, discussions, laboratory classes, teamwork, case method, feedback method from students, problem learning</p>	<p>Written individual assignments for laboratory work (CAS), assessment of knowledge in laboratory classes (CAS), express - survey(CAS), online tests (CAS), final / semester control in the form of a semester test, in accordance with the schedule of the educational process (FAS)</p>

various fields, as well as manage the life cycle of intelligent management systems software.

ASSESSMENT AND GRADING

Range s of poi nts cor res pon ding to gra des	Total score (points) for all types of learning activities	ECTS grading scale	The national grading scale	Alloca tion of grade points	100% Final assessment as a result of Final exam (30%) and Continuous assessment (70%). 30% Final exam 70% Continuous assessment: Laboratory classes (30%) Two module tests (40%)
	90-100	A	excellent		
	82-89	B	good		
	74-81	C			
	64-73	D	satisfactory		
	60-63	E			
	35-59	FX	Unsatisfactory (with the exam retake option)		
	0-34	F	Unsatisfactory (with mandatory repetition of the course)		

Course policy Students are required to attend classes as scheduled and comply with ethical conduct. If absent, students will need to complete all tasks to compensate for the missed classes. Participation in laboratory work requires preliminary preparation and advance processing of all the necessary materials for productive work during the lesson. Written assignments must be submitted on time.

COURSE STRUCTURE AND CONTENT

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Topic 1	Introduction to project management	Laboratory work 1	Getting familiar with the project management environment. Development of a hierarchical structure of work for a training projec	Самостійна робота	Studying the course topics with the help of recommended reading, homework
Topic 2	Project Initiation. Project charter.	Laboratory work 2	Developing a schedule for a training project		
Topic 3	Project planning	Laboratory work 3	Tracking the progress of work in accordance with the schedule ладу		
Topic 4	Project risk management	Laboratory work 4	Developing a project budget and tracking progress of budget		
Topic 5	Assessment of the labor intensity of terms of project development				

Topic 6	Forming a project team				
Topic 7	Effective communication				
Topic 8	Implementation, control and completion of the project				

RECOMMENDED READING

Compulsory	1. Філдінг Пол Дж., Якименко О. (2020) Як керувати проектами Харків: Вид-во «Ранок»: Фабула	Recommended	7. Приймак В. (2017) Управління проектами. Навчальний посібник. – К.: Київський національний університет імені Тараса Шевченка
	2. Єгорченков О. В., Єгорченкова, Н. Ю., Катаєва. Є. Ю. (2017) Азбука управління проектами. Планування: Київ: КНУ ім. Т. Шевченка.		8. Буріменко, Ю. І., Галан, Л. В., Лебедєва, І. Ю., Щуровська А. Ю. (2017) Управління проектами: Одеса: ОНАЗ ім. О. С. Попова.
	3. Корі Когон, Сьюзетт Блейкмор, Джеймс Вуд. (2018) Керування проектами для «неофіційних» проект-менеджерів Харків: Вид-во «Ранок»: Фабула.		9. Harold Kerzner. (2017) Project Management: A Systems Approach to Planning, Scheduling, and Controlling. 12th ed. New York: John Wiley & Sons Inc.
	4. Joseph Heagney. (2016) Fundamentals of Project Managements Nashville: HarperCollins Focus,		10. Greg Horine. (2017) Project Management: Project Management Absolute Beginner's Guide. 4th ed. Pearson Education (US),
	5. Dorling Kindersley (2020) How Management Works.		11. A Guide to the Project Management Body of Knowledge (PMBOK Guide). 6th ed.(2018) /Project Management Institute. Newton Square, PA: Project Management Institute.
	6. Eric Verzuh. The Fast Forward MBA in Project Management: The Comprehensive, Easy-to-Read		
	7. Eric Verzuh. (2021) Handbook for Beginners and Pros. 6th Edition New York: John Wiley & Sons Inc,		

Academic integrity

Graduate students are expected to adhere to the Code of Ethics of Academic Relations and Integrity” of NTU “KhPI”.

The content of this syllabus is consistent with the course program.