

Syllabus Form of Academic Discipline

№	Field name	Detailed content, comments
1.	Name of the faculty	Faculty of Computer Sciences
2.	The level of higher education	Master's
3.	Code and title of specialty	122 Computer Sciences
4.	The type and title of the educational program	Educational and scientific program «System Design»
5.	Code and title of the discipline	Software Product Quality Management
6.	Number of ECTS credits	3
7.	The structure of the course (distribution by type and hours of training)	Lectures – 18 hours, laboratory – 12 hours, consultations – 6 hours, independent work – 54 hours, semester control – credit.
8.	Schedule (terms) of study of the subject	2th year, 3th semester of study
9.	Prerequisites for learning the discipline	Mathematical Analysis, Probability Theory, Probabilistic Processes and Mathematical Statistics, Economics and Business should be previously studied
10.	Abstract (content) of the discipline	<p>Content module 1. Modern approaches to quality management of software products.</p> <p>Topic 1. General concepts of quality management.</p> <p>Topic 2. General concepts of software quality. Software quality characteristics.</p> <p>Topic 3. Modern standards regulating requirements for the quality of software products and methods of its evaluation.</p> <p>Topic 4. Quality model of systems and software products (ISO/IEC 25010).</p> <p>Topic 5. Software quality measurement (ISO/IEC 25021).</p> <p>Content module 2. Tools and methods of quality management.</p> <p>Topic 1. Quality control, assurance and management in the software life cycle.</p> <p>Topic 2. Total quality management (TQM).</p> <p>Topic 3. Statistical methods of quality management.</p> <p>Topic 4. Methods of risk management.</p>
11.	Competencies, knowledge, skills, understanding that a higher education acquirer has in the learning process	<p>General competencies</p> <p>GC1. Ability to abstract thinking, analysis and synthesis.</p> <p>GC11. Ability to make informed decisions.</p> <p>Professional competences</p> <p>PC7. Ability to apply basic quality control tools and new quality management tools and ensure their compliance with the requirements of ISO standards; classify product quality costs; independently master the conceptual apparatus of quality management and</p>

		certification.
12.	Learning outcomes of a Higher Education applicant	Program learning outcomes PLO8. Ability to plan and organize work related to product quality management at all stages of its life cycle; determine product quality indicators at all stages of project implementation; apply quality management systems.
13.	Assessment system in accordance with each task for taking tests/exams	Evaluation of the student's work during the semester: 1. Complete all practical classes. 2. Get at least 60 points per semester. Grade for the semester $O_{ccm} : (20-33,3) \times 3 \text{ lab} = (60-100) \text{ points.}$
14.	The quality of the educational process	Compliance with the principles of academic integrity (http://lib.nure.ua/plagiat). Update of the work program of the discipline – 2022.
15.	Methodological support	Complex of educational and methodological support of the educational discipline "Software Product Quality Management" for master's training in specialty 122 Computer Science of the educational program "System Design" [Electronic edition] / KhNURE; development O. V. Zaporozhets. – Kharkiv, 2020. – 160 p.
16.	The developer of the Syllabus	O.V. Zaporozhets, Associate Professor of the IMT Department, Ph.D., Associate Professor E-mail: oleg.zaporozhets@nure.ua