Syllabus of Academic Discipline
"Statistical Methods of Quality Management"

№	Field name	Detailed content, comments
1.	Name of the faculty	Faculty of Cybersecurity
2.	The level of higher education	Bachelor's
3.	Code and title of specialty	175 Information and Measurement Technologies
4.	The type and title of the educational program	EP "Quality of Products, Processes and Software"
5.	Code and title of the discipline	SMUYa Statistical Methods of Quality Management
6.	Number of ECTS credits	3
7.	The structure of the course (distribution by type and hours of training)	12 h. - 6 l, 12 h. - 6 p, 6 h. - 3 c, 60 h. - independent work, type of control: test.
8.	Schedule (terms) of study of the subject	3rd year, 5th semester
9.	Prerequisites for learning the discipline	Previously, the disciplines of higher mathematics, a standardized approach to quality management should be studied.
10.	Abstract (content) of the discipline	Selective discipline of professional and practical training, contains content modules: 1. Classification of statistical methods of quality management. 2. Classical statistical methods of quality management. 3. New statistical tools for quality control. 4. Statistical methods of expert assessment of quality indicators.
11.	Competencies, knowledge, skills, understanding that a higher education applicant has in the learning process	Integral competence: Ability to solve complex statistical problems and practical problems in the field of quality management, which are characterized by complexity and uncertainty of conditions, which involves the application of theories and methods of statistical analysis and quality management. **General competencies:** GC-1 Ability to apply professional knowledge and skills in practical situations. GC-8. Ability to learn and master modern knowledge. GC-10. Ability to ensure and evaluate the quality of work performed. **Professional competencies:** PC-10. Ability to develop a regulatory and methodological framework for quality assurance and technical regulation and develop scientific and technical foundations for quality management systems and certification tests. PC-11. Ability to form quality models and quantify the quality of objects of various natures PC-14. Ability to apply quality management methodologies, justify and defend the decisions made.
12.	Learning outcomes of a Higher Education applicant	**Program learning outcomes:**

		PLO-3 Understand the broad interdisciplinary context of the specialty, its place in the theory of cognition and evaluation of objects and phenomena. PLO-12 Know and understand modern theoretical and experimental research methods with assessment of the accuracy of the results obtained PLO-19 Understand global trends in the professional approach to the quality of products, processes and software, in particular modern quality models and principles of forming a nomenclature of quality indicators; normative support and general methodology for quantitative quality assessment
13.	Assessment system in accordance with each task for taking tests/exams	6 tests on practical classes. Credit score (C) is calculated by the formula: C=(10-16)Р№1+(10-20)Р№2+(10-16)Р№3+(10-16)Р№4+(10-16)Р№5+(10-16)Р№6=(60-100) credit score.
14.	The quality of the educational process	Compliance with the principles of academic integrity (http://lib.nure.ua/plagiat). Update of the discipline work program – 2025.
15.	Methodological support	Complex of educational and methodological support of the academic discipline "Statistical methods of quality management" of the bachelor's degree in the specialty 152 "Metrology and Information and Measuring Equipment", educational program "Technical Expertise" [Electronic resource] / NURE; development. I.O. Moshchenko. – Kharkiv, 2023.
16.	The developer of the Syllabus	I.Moshchenko, Department of Information and Measurement Technology, associate professor, PhD E-mail: inna.moshchenko@nure.ua