

Syllabus of Academic Discipline
“Modern quality management tools”

№	Field name	Detailed content, comments
1.	Name of the faculty	FACULTY OF INFOCOMMUNICATIONS
2.	The level of higher education	Master's educational and scientific
3.	Code and title of specialty	152 – Metrology and Information-Measuring Technology
4.	The type and title of the educational program	Educational program – Quality assurance
5.	Code and title of the discipline	
6.	Number of ECTS credits	3
7.	The structure of the course (distribution by type and hours of training)	36 h. – 18 L., 18 h. – 9 P., 6 h. – 3 C., h. – 54 independence, type of control: credit
8.	Schedule (terms) of study of the subject	I year, I semester
9.	Prerequisites for learning the discipline	Previously, the disciplines «Higher mathematics», Qualimetry should be studied.
10.	Abstract (content) of the discipline	Selective discipline of basic (professional) studying in the specialty, contains content modules: 1. Classification of modern quality management tools. 2. Comprehensive "Six Sigma" quality management model. Tools for implementation of the "Six Sigma" model. 3. Modern quality management tools in lean production models. 4. Modern tools for managing the quality of business processes.
11.	Competencies, knowledge, skills, understanding that a higher education acquirer has in the learning process	Knowledge of the goals and objectives of using modern quality control tools, the methods of their use, advantages and disadvantages. The ability to make a justified choice of certain quality control tools, based on the purpose of quality analysis and features of primary information; apply modern quality control tools in practice, use computer tools for processing and visualization of statistical data. Mastering the technique of using modern control tools to solve practical tasks in the field of quality management.
12.	Learning outcomes of a Higher Education applicant	Ability to demonstrate knowledge and understanding of the essence of modern quality management tools; definition, essence and features of application of each tool; methods of applying quality tools; advantages and disadvantages of each tool. Be able to make a reasoned choice of a certain tool; to be able to apply modern quality control tools in

		practice.
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: $C=(8-15)P_{\text{№}1}+(13-20)P_{\text{№}2}+(8-15)P_{\text{№}3}+(7-15)P_{\text{№}4}+(7-15)P_{\text{№}5}+(17-20)P_{\text{№}6}=(60-100)$ credit score.
14.	The quality of the educational process	Adherence to the principles of academic integrity (http://lib.nure.ua/plagiat). Update the work program of the discipline – 2022 year.
15.	Methodological support	<p>1. Complex of educational and methodical support of the educational discipline "Models of total quality management" for the bachelor of a specialty 152 "Metrology and information-measuring technology", educational program "Technical expertise" [Electronic resource] / KhNURE; Compiler: I.Moshchenko. - Kharkiv, 2018. http://catalogue.nure.ua/knmz.</p> <p>2. Metodichni vказivky do praktychnykh zaniat z dystsyplin «Modeli zahalnoho keruvannia yakistiu» dlia studentiv usikh form navchannia spetsialnosti 152 «Metrolohiia ta informatsiino-vymiriuvalna tekhnika» osvitno-profesiinoi prohramy «Tekhnichna ekspertyza» / Uporiad. I.O. Moshchenko. – Kharkiv: KhNURE, 2021. – 32 s.</p> <p>3. Kompleks navchalno-metodychnoho zabezpechennia navchalnoi dystsypliny "Suchasni instrumenty upravlinnia yakistiu" pidhotovky mahistriv spetsialnosti 152 «Metrolohiia ta informatsiino-vymiriuvalna tekhnika», osvitnia prohrama «Zabezpechennia yakosti» [Elektronnyi resurs] / KhNURE ; rozrob. I.O.Moshchenko. – Kharkiv, 2023.</p>
16.	The developer of the Syllabus	I.Moshchenko, Department of Information and Measurement Technology, PhD E-mail: inna.moshchenko@nure.ua