

**Syllabus of Academic Discipline**  
**“Control and diagnostics in technical processes”**

№	Field name	Detailed content, comments
1	Name of the faculty	FACULTY OF INFOCOMMUNICATIONS
2	The level of higher education	Bachelor'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 – Technical Expertise
5	Title of the discipline	Control and diagnostics in technical processes
6	Number of ECTS credits	2,5
7	The structure of the course (distribution by type and hours of training)	18h.– 9 L, 16h.– 8 P, 8h.–4 consultation, 46h.– independence, type of control: credit
8	Schedule (terms) of study of the subject	IV year, VIII semester
9	Prerequisites for learning the discipline	Previously, the disciplines “Higher mathematics”, “Physics” and “Basics of technical regulation” should be studied
10	Abstract (content) of the discipline	Normative discipline of basic (professional) studying in the specialty includes the following content modules: 1. The essence of the quality management system 2. Process control 3. Six Sigma methodology
11	Competencies, knowledge, skills, understanding that a higher education acquirer has in the learning process	Know the main processes of the quality management system, process models and rules for their construction, methods and instruments of statistical process control, Six Sigma process improvement methodology. Be able to build a target model of the production process and its elements, formulate requirements for process elements, formulate key process indicators, search for root causes of discrepancies.
12	Learning outcomes of a Higher Education applicant	Ability to build a production process model and its elements, formulate requirements for process elements, formulate key process indicators Be able to build quality management system processes, process models and rules for their construction, methods of statistical process control, Six Sigma process improvement methodology.
13	Assessment system in accordance with each task for taking tests/exams	To evaluate the student's work during the semester, the final rating grade is calculated as the sum of grades for various classes and control measures. Practical lessons 1-8 - 60 points Credit 40 points Total 100 points
14	The quality of the educational process	Adherence to the principles of academic integrity ( <a href="http://lib.nure.ua/plagiat">http://lib.nure.ua/plagiat</a> ). Update the work program of the discipline – 2022 year.

15	Methodological support	Complex of educational and methodical support of the educational discipline “Control and diagnostics in technical processes” for the bachelor of a specialty 152 "Metrology and information-measuring technology", educational program "Technical expertise" [Electronic resource] / KhNURE; Compiler: A. Egorov. - Kharkiv, 2019. <a href="http://catalogue.nure.ua/kmz">http://catalogue.nure.ua/kmz</a> .
16	The developer of the Syllabus	Y.Kozlov, Department of Information and Measurement Technology, PhD E-mail: <a href="mailto:yurii.kozlov@nure.ua">yurii.kozlov@nure.ua</a>