

Syllabus of Academic Discipline  
“Basics of metrological support”

№	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	Basics of metrological support
6	Number of ECTS credits	5
7	The structure of the course (distribution by type and hours of training)	30h.– 15 L, 18.– 9 P, 10h.–5 consultation, 80h.– independence, type of control: exam
8	Schedule (terms) of study of the subject	IV year, VII semester
9	Prerequisites for learning the discipline	Previously, the disciplines “Higher mathematics”, “Physics” and “Introduction to the specialty” should be studied
10	Abstract (content) of the discipline	Normative discipline of basic (professional) studying in the specialty, contains 2 parts with the following content modules: 1. Basic concepts of metrological support. 2. Selection of controlled technical parameters objects. 3. Metrological support for measurements and tests of technical objects. 4. Metrological Service of Ukraine
11	Competencies, knowledge, skills, understanding that a higher education acquirer has in the learning process	Know the methods of selecting controlled parameters of technical objects, methods and instruments of controlling the parameters of technical objects, normative and technical provisions of metrological support at all stages of the life cycle of technical objects; Be able to independently choose controlled parameters of technical objects and of their control; develop methods of performing measurements and carry out their metrological examination; evaluate the effectiveness of the system of metrological support of measurements and tests; To develop methods of performing measurements in case of their absence in the technical documentation or inconsistency with the current legislation and regulatory framework of Ukraine.
12	Learning outcomes of a Higher Education applicant	The ability to determine the controlled parameters of technical objects. The ability to choose measuring device to control the parameters of technical objects according to their accuracy. The ability to develop a methodology for

		performing measurements and conduct their metrological examination
13	Assessment system in accordance with each task for taking tests/exams	<p>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.</p> <p>Practical lessons 1 – 3 <math>(6...10) \times 3 = 18...30</math> points  Laboratory works 1, 2 <math>(6...10) \times 2 = 12...20</math> points  Control point 1 30...50 points  Practical lessons 4 – 7 <math>(6...10) \times 4 = 24...40</math> points  Laboratory work 3 6...10 points  Control point 2 30...50 points  A total of 60...100 points per semester  The form of final control is a written (combined) exam.  With this type of control, the final score Pf is calculated according to the formula:  <math>Pf = 0.6 * Psem + 0.4 * Pex</math>,  where Psem is the grade for the semester in the 100-point system,  Pex is the grade for the exam in the 100-point system.  The exam ticket consists of four theoretical questions and a task. Theoretical questions and task are valued at 20 points each (in total - 100 points).</p>
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 “Basics of metrological support” for the bachelor of a specialty 152 "Metrology and information-measuring technology", educational program "Technical expertise" [Electronic resource] / KhNURE; Compiler: O. Degtyarov. - Kharkiv, 2020. <a href="http://catalogue.nure.ua/knmz">http://catalogue.nure.ua/knmz</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>