

### Syllabus Form of Academic Discipline

№	Field name	Detailed content, comments
1	Name of the faculty	Faculty of Automatics and Computerized Technologies
2	The level of education of higher	First (bachelor's)
3	Code and title of specialty	151 – Automation and computer-integrated technologies
4	The type and title of the educational program	Educational professional programs: «Automation and computer-integrated technologies» «System engineering»
5	Code and title of the discipline	Meter Metrology
6	Number of ECTS credits	3
7	The structure of the course (distribution by type and hours of training)	Lectures – 20 hours, practical – 4 hours, laboratory – 12 hours, consultations – 6 hours, independent work – 48 hours, semester control – test.
8	Schedule (terms) of study of the subject	1-th year and 2-th semester of study
9	Prerequisites the discipline for learning	Disciplines must be studied before "Physics" "Higher mathematics"
10	Abstract (content) of the discipline	Disciplines of basic (professional) training, containing content modules: 1. Legal metrology. Physical quantities. System of units of physical quantities. Principles and methods of measurements. 2. Assessment of accuracy and quality of measurements. Measurement errors and uncertainties. 3. Basic methods and means of measuring radio-electric quantities.
11	Competencies, knowledge, skills, understanding that a higher education acquirer has in the learning process	General competences GK1. Ability to apply professional knowledge and skills in practical situations. GK8. Ability to learn and master modern knowledge. Professional competences PC2. Ability to use information and measurement technology. PC9. Ability to perform calibration and verification of measuring equipment.

12	Learning outcomes of a Higher Education applicant	<p>Program learning outcomes</p> <p>PLO 7 to know: theoretical and legislative provisions of metrology, basic methods and technical means of measuring electrical quantities in Telecommunications and Radio Engineering;</p> <p>PLO 13 be able to: choose a method and means of measurement for a certain measurement task, conduct a measurement experiment, identify sources of errors, eliminate or reduce their influence on the measurement result; present the measurement result.</p>
13	Assessment system in accordance with each task for taking tests/exams	<p>Evaluation of the student's work during the semester: 1. Work out and defend laboratory works. 2. At least 60 points will be deducted for the semester.</p> <p>3. Pass the test.</p> <p>4. Take a credit.</p> <p>Grade for the semester</p> $Q_{cem}: (15-20) \times 3 \text{ lab} + (1-20) \times 2 \text{ pz} = (60-100) \text{ points.}$ <p>Grade for the credit <math>O_3 = (60-100) \text{ points.}</math></p> <p>Final grade is calculated according to the formula: <math>Q_{cem} \times 0,6 + Q_3 \times 0,4 = (60-100) \text{ points.}</math></p>
14	The quality of the educational process	<p>Compliance with the principles of academic integrity (<a href="http://lib.nure.ua/plagiat">http://lib.nure.ua/plagiat</a>). Update of the work program of the discipline - 2022. The laboratory workshop is equipped with modern analog and digital Measuring devices.</p>
15	Methodological support	<ol style="list-style-type: none"> <li>1. Ignatkin, V.U. Basics of metrology of tax instruments and measuring equipment [Text]: Study guide / – Zaporizhzhya: ZNTU, 2017 - 120 p.</li> <li>2. Methodological instructions for the laboratory workshop in the discipline "Metrology" for students of specialty 151 – Automation and computer-integrated technologies / Edited by. Degtiarov O.V. - Kharkiv: Khnure, 2022. - 55 p. 3.</li> <li>3. Methodological instructions for the practical workshop in the discipline "Metrology" for students of specialty 151 – Automation and computer-integrated technologies / Edited by. Degtiarov O.V. - Kharkiv: Khnure, 2022. - 56 p.</li> <li>3. Methodological instructions for independent work in the discipline "Metrology" for students of specialty 151 – Automation and computer-integrated technologies / Edited by. Degtiarov O.V. - Kharkiv: nure, 2017– 17p.</li> </ol>

16	The developer of the Syllabus	O.V. Degtiarov, Assoc. prof. of Department IMT NURE, Ph.D., associate professor E-mail: <a href="mailto:oleksandr.degtiarov@nure.ua">oleksandr.degtiarov@nure.ua</a>
----	-------------------------------	---