

Syllabus Form of Academic Discipline

№	Field name	Detailed content, comments
1	Name of the faculty	Faculty of Electronic and Biomedical Engineering
2	The level of education of higher	First (bachelor's)
3	Code and title of specialty	163 - Biomedical Engineering
4	The type and title of the educational program	Educational professional program «Biomedical 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 – 0 hours, laboratory – 16 hours, consultations – 6 hours, independent work – 48 hours, semester control – exam.
8	Schedule (terms) of study of the subject	2-th year and 1-th semester of study
9	Prerequisites the discipline for learning	Higher mathematics, Physics, "Introduction to specialty" should be previously studied/
10	Abstract (content) of the discipline	Disciplines of basic (professional) training, containing content modules: 1. Physical quantities. System of units of physical quantities. 2. Measurement errors. Assessment of accuracy and quality of measurements. 3. Principles of measurements. Basic methods and means of measuring electrical quantities.
11	Competencies, knowledge, skills, understanding that a higher education acquirer has in the learning process	General competencies 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 biomedical 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 Q_{cem}: $(15-25) \times 4$ lab = $(60-100)$ points.</p> <p>Grade for the credit $O_3 = (60-100)$ points.</p> <p>Final grade is calculated according to the formula: $Q_{cem} \times 0,6 + Q_3 \times 0,4 = (60-100)$ points.</p>
14	The quality of the educational process	<p>Compliance with the principles of academic integrity (http://lib.nure.ua/plagiat). 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	<p>1. Ignatkin, V.U. Basics of metrology of tax instruments and measuring equipment [Text]: Study guide / – Zaporizhzhya: ZNTU, - 120 p.</p> <p>2. Methodological instructions for the laboratory workshop in the discipline "Metrology" for students of specialty 163 "Biomedical engineering" / Edited by. Degtyarev O.V. - Kharkiv: Khnure, 2017. - 55 p.</p> <p>3. Methodological instructions for independent work in the discipline "Metrology" for students of specialty 163 "Biomedical engineering" / Edited by. Degtyarev O.V. - Kharkiv: nure, 2017– 17p.</p>
16	The developer of the Syllabus	<p>O.V. Degtiarov, Assoc. prof. of Department IMT, Ph.D., associate professor</p> <p>E-mail: oleksandr.egtiarovs@nure.ua</p>