STANDARDIZATION OF ACCURACY STANDARDS

SUMMARY
TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

Specialty 6-05-0716-03 Automation of technological processes and productions
Profiling: Automated electric drives

	Form of higher education		
	Full-time (day)	Distance learning	Part-time abbreviated
Course	3	**4**	**3**
Semester	5	8	6
Lectures, hours	34	8	8
Laboratory classes, hours	34	8	8
Classroom hours in the academic discipline	68	16	16
Offset, semester	5	8	6
Independent work, hours	40	92	92
Total hours in the academic discipline/ credit units	108/3		

1. Summary of the academic discipline.

The purpose of teaching the discipline is to acquire students' knowledge on theoretical, applied and legislative metrology, standardization and conformity assessment, methods of converting measurement information into analog and digital forms, on the design of analog, digital measuring instruments and primary measuring transducers of non-electrical quantities, skills in the correct choice of measuring and control tools, calculation of primary converters of non-electrical values, estimates of errors in control and measurement tools.

2. As a result of mastering the educational discipline, the student must:

know: basic concepts of metrology, standardization and conformity assessment, basic characteristics of measuring instruments; units of physical quantities and their standards; metrological and non-metrological characteristics of measuring instruments, methods and devices for measuring electrical quantities; device of analog electrical measuring instruments and principles of their operation; device of digital measuring instruments and principles of their operation; principle of operation and device converters of non-electrical quantities;

be able to: choose the right measurement method; justify the choice of devices for measuring electrical and non-electrical quantities; measure electrical quantities; choose a primary converter for measuring non-electrical quantities; choose the right means of verifying measuring instruments and carry out verification, apply standards when solving specific tasks;

have the skill: to master the methods of measuring electrical quantities with various electrical devices; methods of converting measuring information; methods of converting analog quantities into digital; methods of error estimation of measuring instruments and converters.

3. Competencies to be formed.

The development of this educational discipline should ensure the formation of the following competencies: Know the basics of rationing the accuracy and quality of measuring the coordinates of an electric drive, modern devices for conducting electrical measurements, and be able to use appropriate measuring tools and devices.

4 Requirements and forms of current and intermediate certification: control work, test assignments, performance and defense of laboratory works - current certification, examination pro- intermediate certification (oral and written form).