

CONTROL AND MEASURING EQUIPMENT

ANNOTATION TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

Speciality 1-54 01 02 - "Methods and instruments for quality control and diagnostics of the state of objects

	Form of higher education
	Full-time (daytime)
Well	3
Semester	5
Lectures, hours	34
Practical (seminar) classes, hours	16
Laboratory classes, hours	16
Coursework, semester	5
Exam, semester	5
Classroom hours per academic discipline	66
Independent work, hours	42
Total hours per academic discipline / credit units	108/3
Total hours for term paper in academic discipline/ credits	36/1

1. Brief content of the discipline. Control and measuring equipment is a discipline that provides training for students in the field of the basics of analog and digital measuring equipment, as well as methods for the effective perception, transformation and display of measuring information about electrical and non-electrical quantities.

2. As a result of mastering the discipline, the student should to:

– know: the main characteristics of measuring instruments, methods and devices for measuring electrical quantities, the design of analog electrical measuring instruments and the principles of their operation, the design of digital measuring instruments and the principles of their operation, the principle of operation and the device of converters of non-electric quantities;

– be able to: choose the right measurement method, justify the choice of instruments for measuring electrical and non-electrical quantities, measure electrical quantities, select a primary converter for measuring non-electrical quantities, calculate the primary converter of non-electrical quantities, choose the right means of verification of measuring instruments and carry out verification;

– own: methods for measuring electrical quantities, methods for converting measuring information, methods for converting analog values into digital ones, methods for assessing the errors of measuring instruments and converters.

3. Competences being formed: SK-6 - Be able to make a reasonable choice of a measuring transducer and instruments for measuring a given physical quantity

4. Requirements and forms of current and intermediate certification: exam (oral and written form). In order to be admitted to the exam, the student, in accordance with the program, must complete and defend laboratory work, as well as complete and defend term paper.