INTRODUCTION TO ELECTROMECHANICAL SYSTEMS

COURSE SYLLABUS ABSTRACT

1-53 01 05 Automated electric drives

	STUDY MODE		
	full-time	part-time	part-time (shortened program)
Year	2	2	2
Semester	4	4	4
Lectures, hours	50	12	12
Auditor's work, semester	-	4/2	4/2
Exam, Semester	4	4	4
Contact hours	50	12	12
Independent study, hours	58	94	94
Total course duration in hours / credit units	108/3		

1. Course outline

The main goal of the discipline is to form a general idea of the composition and main characteristics of modern electromechanical systems on the example of the main components of an automated electric drive (sources of electrical energy, power converters, electric motors, control system devices).

2. Course learning outcomes

As a result of mastering the discipline, the student must know: the composition of subsystems of an automated electric drive; main characteristics of electromechanical systems; principles of energy conversion in electromechanical systems; the main classification of subsystems of an automated electric drive; the main criteria for evaluating the effectiveness of both the electromechanical system as a whole and its main subsystems.

A student who has studied the discipline should be able to: perform an analysis of an electromechanical system using an example of an automated electric drive; evaluate the main indicators of the automated electric drive system; classify the elements of an automated electric drive.

A student who has studied the discipline must be proficient in: basic terminology in the field of electric drive; skills in analyzing the main characteristics of individual subsystems of an automated electric drive and an electromechanical system as a whole.

3. Competencies

The development of informatics should ensure the formation of competencies of SC-17.

4. Requirements and forms of midcourse evaluation and summative assessment

To assess the quality of assimilation of educational material by students, including acquired competencies, current certification is carried out in the form of defending an individual task and exams in an academic discipline. The results of the current certification in the form of an exam or defense of a term paper are evaluated by marks in points on a ten-point scale.

Intermediate control of progress is aimed at ensuring maximum efficiency of the educational process, increasing motivation for learning; provides for the evaluation of the performance of control work.