

AUTOMATED ELECTRIC DRIVE OF TECHNOLOGICAL EQUIPMENT

COURSE SYLLABUS ABSTRACT

1-36 01 03 Technological equipment of machine-building production

	STUDY MODE	
	full-time	part-time (shortened program)
Year	3	3
Semester	6	6
Lectures, hours	50	12
Laboratory classes, hours	16	4
Practical classes (seminars), hours	16	4
Pass/fail, semester	6	6
Contact hours	82	20
Independent study, hours	38	100
Total course duration in hours / credit units	120/3	120/3

1. Course outline

Obtaining by students the skills of designing automated electric drives for technological equipment systems, including metal-cutting machines, as well as calculating the main elements of electric drives.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know:

- basic requirements for electric drives of process equipment systems;
- capabilities of automated electric drives when used in process equipment systems;
- modes of operation of electric motors and the method of their selection;
- capabilities of components used in control systems of automated electric drives;

be able to:

- formulate the conditions of tasks related to the design of automated electric drives for process equipment systems;
- perform calculations related to the design of automated electric drives for process equipment systems;

possess:

- methods for designing automated electric drives for process equipment systems.

3. Competencies

SC-1. Be able to design automated electromechanical, hydraulic, pneumohydraulic drives of metal-cutting machines using modern components and performing calculations.

4. Requirements and forms of midcourse evaluation and summative assessment

To assess the quality of assimilation of educational material by students, including the acquired competencies, a current certification is carried out in the form of a credit for the academic discipline. The results of passing the tests are evaluated with the marks “passed” or “not passed”.

Intermediate control of progress is aimed at ensuring maximum efficiency of the educational process, increasing motivation for learning; provides for the assessment of the implementation of individual tasks for practical work and the defense of laboratory work.