AUTOMATIC REGULATION SYSTEMS

COURSE SYLLABUS ABSTRACT

1-53 01 05 Automated electric drives

	STUDY MODE		
	full-time	part-time	part-time (shortened program)
Year	3	4	3
Semester	6	7	6
Lectures, hours	34	8	8
Laboratory classes, hours	50	8	14
In-class test (semester, hours)		7 (2 ч.)	
Course project, semester	6	6	6
Exam, semester	6	7	6
Contact hours	84	18	22
Independent study, hours	96	162	158
Total course duration in hours / credit units	180/5		

1. Course outline

Obtaining by students the skills of independent application of the basic provisions of the theory of automatic control to solve specific problems of research and design of automatic control systems (ARS).

2. Course learning outcomes

Upon completion of the course, students will be expected to

know:

- the functional diagrams of ARS;
- the mathematical models of ARS;
- the dynamic characteristics of ARS;
- the concept of stability and quality of management processes;
- the modern methods of analysis and synthesis of ARS using a computer$

be able to:

- apply theoretical knowledge in practice (be able to build functional circuits and calculate mathematical models of ARS);

possess:

- the skills in working with mathematical software Mathcad;
- the skills to obtain and analyze the dynamic characteristics and stability of the ARS.

3. Competencies

SC-19. To know the basics of engineering design in the specialty.

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 a term paper and an exam in an academic discipline. The results of the current certification 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 and protection of laboratory work.