BASICS OF ELECTRICAL ENGINEERING, ELECTRONICS AND AUTOMATED ELECTRIC DRIVE

ANNOTATION

To TRAINING PROGRAM INSTITUTIONS HIGHER EDUCATION

Specialty 1-40 05 01 "Information systems and technologies (according to directions)"

	The form receiving higher education	
	full-time (daily)	Correspondence abbreviated
Well	3	3
Semester	5	5
Lectures, hours	34	2
Laboratory lessons, watch	34	four
Exam, semester	5	5
classroom hours on educational discipline	68	6
Independent Work, watch	88	150
Total hours for academic discipline /credit units	156/ 4.5	

1. Brief content educational disciplines. Discipline applies to module "Electrical Engineering and electronics" and contains two block: "Electrical Engineering" and "Electronics". The task of the discipline is the formation of a concept of the principles of operation and design of electronic devices, an experimental study of their work in various modes on the laboratory installations and COMPUTER, a also application electronic and digital devices in solving various technical problems.

2. Learning outcomes. As a result of mastering the academic discipline, the student must

- know: electrical laws and methods of analysis of electrical and magnetic circuits; the purpose and principle of operation of the main components of modern equipment containing electrical machines, apparatus and elements of automation, electrical measuring devices; design and principles of operation of the main elements of electronics; basic methods for calculating electrical, electronic devices and the choice of typical elements; electrical terminology and symbols.

- be able to: experimentally determine the parameters and characteristics of typical electrical devices; turn on electrical devices and machines, manage them and control their efficient and safe operation; to competently draw up technical specifications for the development of automated systems management production processes jointly With electrical engineers.

- own: methodology for the selection of electrical products to ensure the functioning of electrical machines and apparatus; a technique for reading electrical circuits and determining the characteristics of typical electrical devices; skills in modeling the operation of electrical, electromagnetic and electronic devices.

3. Formed competencies: AK-1 - be able to apply basic scientific and theoretical knowledge to solve theoretical and practical problems; AK-7 - Have the skills related With using technical devices, management information and working with a computer. SLK-6 - Be able to work in a team. PC-3 - Analyze and justify choice technical, program funds and systems for automated support of professional activity processes.

4. Requirements and forms current attestation: exam (oral-written the form). For admission to exam student in compliance With educational program is obliged to perform and defend laboratory work, as well as individual assignments.