

COURSE SYLLABUS ABSTRACT

Specialty: 6-05-0714-03 - Engineering design and materials production and products from them

Concentration: Equipment and technology for welding production

	Form of higher education	
	Full-time (day)	Part time
Year	3	3
Semester	5	5
Lectures, hours	34	8
Laboratory, hours	34	8
Test, semester	5	5
Total hours in class	68	16
Independent work, hours	40	92
Total hours in the discipline/ credit	108/3	

1. Summary of the academic discipline. The discipline belongs to the module "Fundamentals of electronics and circuit engineering ". The objectives of the discipline are to teach students to deeply understand the principle of operation of electronic devices, experimentally investigate their operation in various modes on computers and laboratory installations, and apply them to create modern electronic information processing devices.

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

know: the device and the principle of operation of electronic devices, their operation in various modes; methods of calculation and selection of optimal modes of operation of electronic devices; methods of setting up an experiment on the study of electronic devices; methods of calculating circuits of electronic devices.

be able to: to carry out the calculation and selection of elements, to develop electrical structural, functional and schematic diagrams of electronic devices; to simulate and study on a computer the operation of electronic devices in various modes; to carry out experimental studies of electronic devices on special bench equipment.

have the skill to: calculate and model typical circuits and assemblies of analog and digital devices of automated control systems; read electrical circuits and determine the characteristics of typical electronic devices..

3. Formed competencies: To carry out the description and modeling of electronic circuits of information system components.

4. Requirements and forms of current and midterm assessment. Midterm assessment: credit (oral and written form). Current assessment: to be admitted to credit, the student must complete and defend laboratory work and tests in accordance with the curriculum.