

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	2	2
Semester	4	4
Lectures, hours	34	8
Laboratory, hours	16	4
Test, semester	4	4
Total hours in class	50	12
Independent work, hours	58	96
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 the formation of the concept of the principles of operation and design of electronic devices, the experimental study of their operation in various modes on laboratory installations and computers, as well as the use of electronic and digital devices in solving various technical problems.

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

know: electrotechnical laws and methods of analysis of electric and magnetic circuits; the purpose and principle of operation of the main components of modern equipment containing electric machines, apparatuses and elements of automation, electrical measuring devices; electro-technical terminology and symbols.

be able to: experimentally determine the parameters and characteristics of typical electrical devices; turn on electrical and electronic devices, control them and control their efficient and safe operation; describe and model electronic components of information systems; analyze electrical circuits for static and dynamic modes with concentrated and distributed parameters; competently draw up technical specifications for the development of automated systems management of production processes.

have the skill to: select electrical products to ensure the functioning of electrical machines and apparatuses; read electrical circuits and determine the characteristics of typical electrical devices.

3. Formed competencies: To analyze electrical circuits for static and dynamic modes with concentrated and distributed parameters.

4. The form of the current certification: test (oral-written form). In order to be admitted to the test, the student, in accordance with the curriculum, is obliged to perform and defend laboratory work, as well as individual assignments and control work.