

# ELECTRICAL ENGINEERING AND ELECTRONICS

## COURSE SYLLABUS ABSTRACT

### 1-36 11 01 «Automated information processing systems»

	Form of higher education		
	Full-time (day)	Part-time	Part-time abbreviated
Year	2	2	2
Semester	4	4	4
Lectures, hours	34	8	8
Practical classes (seminars), hours	-	-	-
In-class test (semester, hours)	34	6	6
Classroom examination (semester, hours)	-	4 (2ч)	4 (2ч)
Exam, semester	4	4	4
Classroom hours for the academic discipline, hours	68	16	16
Independent work, hours	52	104	104
Total course duration in hours / credit units	120 /3		

1. Summary of the academic discipline. The discipline belongs to the module "Fundamentals of Electronics and circuit engineering" (a component of a higher education institution). The task of the discipline is to form the concept of the principles of operation and design of electronic devices, 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: 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, apparatuses and automation elements, electrical measuring devices, electrical terminology and symbols; must be able to: experimentally determine the parameters and characteristics of typical electrical devices, include electrical and electronic devices, manage them and control their efficient and safe operation, carry out the description and modeling of 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 production process control systems; must be proficient in: the methodology for selecting electrical and electronic products to ensure the functioning of automated control systems, the methodology for reading electrical circuits and determining the characteristics of typical electrical devices.

3. Formed competencies: SK-9 – To carry out the description and modeling of electronic components of information systems; To analyze electrical circuits for static and dynamic modes with concentrated and distributed parameters.

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