Electrical equipment of motor vehicles

(course title)

COURSE SYLLABUS ABSTRACT

6-05-0715-03-3 "Cars, tractors, mobile and technological complexes"

(specialty code and name)

Computer engineering in the automotive industry

(concentration)

	STUDY MODE
	full-time
Year	4
Semester	7
Lectures, hours	16
Laboratory classes, hours	16
Practical exercises, hours	16
Pass/fal, semester	7
Contact hours	48
Independent study, hours	60
Total course duration in hours / credit units	108/3

1. Course outline

Acquisition of knowledge and skills in analyzing modern designs, circuits, diagnostic methods, maintenance and repair of electrical equipment of cars.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know:

- the theory, principle of operation and design of the vehicle electrical system as a whole, its individual subsystems and components;
- advantages and disadvantages of various models and modifications of components and systems of electrical equipment;
- operating principle, device, design features of electrical equipment devices;

be able to:

- ensure proper operation, maintenance and repair of appliances and electrical equipment components;
- identify the continuity and development trends of the main systems and components of electrical equipment;
- understand the design and operation features of new devices in automotive electrical systems.

to possess a skill:

- construction of individual nodes and subsystems;
- diagnostics, maintenance and repair of devices and components of electrical equipment;
- inspections of electrical equipment systems and components on stands and using instruments;
- reading electrical circuits of electrical equipment of cars.

3. Emerging competencies

Apply knowledge about the structure and operating principles of vehicle electrical equipment.

4. Requirements and forms of current and midterm assessment: reports on laboratory and practical work with their oral defense; credit in oral or written form.