

ELECTRICAL EQUIPMENT OF VEHICLES
(course title)

COURSE SYLLABUS ABSTRACT
of higher education institution speciality

1-37 01 06 "Technical operation of vehicles (by directions)"
(speciality code and name)

	STUDY MODE	
	full-time	part-time
Year	3	3
Semester	5	6
Lectures, hours	34	6
Laboratory classes, hours	34	6
Exam, semester	5	6
Contact hours	68	14
Independent study, hours	70	124
Total course duration in hours / credit units	138/4	

1. Course outline

Obtaining knowledge and skills in the analysis of modern designs, schemes, methods of diagnosing, maintenance and repair of electrical equipment of cars.

2. Course learning outcomes

Upon completion of the course, students will be expected to know:

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

be able to:

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

possess:

- principles of designing individual units and subsystems of electrical equipment;
- skills in diagnosing, maintenance and repair of devices and electrical equipment components;
- methods for checking systems and components of electrical equipment on stands and with the help of instruments;
- reading electrical circuits of electrical equipment of cars.

3. Competencies

AC - 1 Be able to apply basic scientific and theoretical knowledge to solve theoretical and practical problems of the technical operation of vehicles. AC - 2 Be proficient in systemic and comparative analysis. AC - 3 Possess research skills. AC - 4 Be able to work independently. AC - 5 Be able to generate new ideas (be creative). AC - 6 Own an interdisciplinary approach to solving problems. AC - 7 Have skills related to the use of technical devices, information management and computer work. AC - 8 Possess oral and written communication skills. AC - 9 Be able to learn, improve their skills throughout their lives. SPC - 5 Be capable of criticism and self-criticism. SPC - 6 Be able to work in a team. PC - 32 Identify and analyze the causes of failures and malfunctions of units, assemblies, parts of maintenance equipment, diagnostics and repair of vehicles. PC - 33 Ensure the serviceable, operable condition of technological equipment. PC - 34 In accordance with the rules and regulations, periodically inspect lifting and inspection, diagnostic and other equipment in a timely manner, carry out its maintenance and repair. PC - 35 Ensure timely repair of process equipment, check its condition after repair, maintain the necessary technological documentation for repairs. PC - 36 Prepare technological equipment for certification.

4. Requirements and forms of midcourse evaluation and summative assessment.

To diagnose competencies, an oral-written form is used.

To assess the level of knowledge of students, the following diagnostic tools are used:

- exam;
- reports on laboratory work with their oral defense.