

VEHICLE CONTROL SYSTEM DESIGN

(course title)

COURSE SYLLABUS ABSTRACT

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

(speciality code and name)

Computer engineering in the automotive industry

(concentration)

	STUDY MODE
	full-time
Year	3
Semester	6
Lectures, hours	16
Practical classes (seminars), hours	16
Laboratory classes, hours	16
Pass/fal, semester	6
Contact hours	48
Independent study, hours	60
Total course duration in hours / credit units	108/3

1. Course outline

The goal of the academic discipline is to develop students' competencies that will enable them to design a vehicle's braking system and steering system at a modern level.

2. Course learning outcomes

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

- methods of analyzing designs and layout diagrams of the braking system and steering in relation to the most important performance properties of the car;
 - theory of work processes, methods of calculating and designing the main units and assemblies that make up the braking system and steering of the car;
 - requirements of standards for the structure and operating parameters of the braking system and steering of the car;
 - main directions for improving the designs of the braking system and steering of the car;
- be able to:
- select the structure of the braking system and steering of the car, based on its purpose and operating conditions;
 - determine the design parameters of the main units and assemblies related to the car control system;
 - carry out technically competent development of designs of units and assemblies of car control systems.

to possess a skill:

- selecting layout diagrams of the braking system and steering;
- calculating the performance characteristics of the braking system and steering;
- determining the design parameters and calculating the strength of the main parts and units of car control systems.

3. Competencies Be capable of self-development and improvement in professional activities

Apply methodological principles of designing vehicle control systems

4. Requirements and forms of midcourse evaluation and summative assessment. The tests are carried out in the form of electronic tests on the Moodle platform. The assessment is carried out in the form of an electronic test on the Moodle platform.