

VEHICLES
(course title)

COURSE SYLLABUS ABSTRACT
of higher education institution speciality

6-05-0715-07 Operation of ground transport and technological machines and complexes
(speciality code and name)

Profiling "Technical operation of vehicles"
"Vehicle service"
(concentration)

	STUDY MODE		
	full-time	part-time	part-time (shortened program)
Year	3	3, 4	2, 3
Semester	5, 6	6, 7	4, 5
Lectures, hours	84	16	16
In-class test (semester, hours)	–	6 / 2	4 / 2
Exam, semester	5	6	4
Diff. test	6	7	5
Contact hours	152	32	32
Independent study, hours	100	220	220
Total course duration in hours / credit units	252 / 7		

1. Course outline

The academic discipline includes knowledge of the purpose, classification, design and operation of vehicles and their elements, the theory of the movement of vehicles, the basics of designing vehicles and their elements.

2. Course learning outcomes

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

the role, condition and prospects for the development of the automotive industry (AI) of vehicles; general arrangement and classification of vehicles; purpose, classification, arrangement and principles of operation of units, systems, mechanisms, units; the basic principles of the movement of vehicles; operational properties (OP) of vehicles; indicators, assessment methods and ways to improve the OP; workflows, types of loading and methods for calculating the elements of vehicles; assessment methods and ways to improve vehicles;

be able to:

apply the acquired knowledge in technical operation and transportation; evaluate the constructive perfection of vehicles; perform calculations of aggregates, units, systems, mechanisms, as well as determine the parameters of the movement of vehicles;

to possess a skill:

methods of strength and functional calculation of the elements of the vehicle, as well as methods for determining the parameters of the motion of the vehicle.

3. Competencies

- Analyze the structure and principle of operation of components and assemblies of automobiles;
- Calculate traction-speed, fuel-economic and braking characteristics, controllability, stability of the car, analyze the characteristics of the operational properties of the car.

4. Requirements and forms of midcourse evaluation and summative assessment

oral-written form: reports on laboratory work with their oral defense, term paper, exam, diff. test.