

## VEHICLES

(course title)

### COURSE SYLLABUS ABSTRACT of higher education institution speciality

1-37 01 06 "Technical operation of vehicles"

(speciality code and name)

	STUDY MODE		
	full-time	part-time	part-time (shortened program)
Year	3,4	3,4	3
Semester	5,6,7	5,6,7	5
Lectures, hours	84	14	8
In-class test (semester, hours)	-	5 (2hours) 6 (2hours)	-
Exam, semester	5,6	5,6	5
Contact hours	134	28	14
Independent study, hours	138	244	158
Total course duration in hours / credit units	272 / 6	272 / 6	172 / 4

#### 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;

possess:

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

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 Have an interdisciplinary approach to problem solving. 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-1 Organize the work of small teams of performers in the maintenance and repair of vehicles. PC-4 Analyze and evaluate the collected data PC-7 Use global information resources PC-10 Master the basics of industrial relations and management principles, taking into account technical, financial and human factors PC-12 Analyze the prospects and directions for the development of production and technical base and road transport in general. PC - 21 Reasonably choose the method of logistics organization of road transport. PC - 27 Carry out modern methods and means of diagnosing and monitoring the condition of vehicles. PC - 37 Carry out work on the introduction of equipment and new technology in accordance with the rules and regulations, using the projects of vehicles organizations and their individual facilities and relevant technical documentation.

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

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