

**MECHANIZATION OF TECHNICAL OPERATION PROCESSES**  
(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	part-time (shortened program)
Year	4	4	3
Semester	7	8	6
Lectures, hours	38	8	8
Practical classes (seminars), hours	26	4	4
Laboratory classes, hours	26	4	4
In-class test (semester, hours)		8 (2 hours)	6 (2 hours)
Course paper, semester	7	9	7
Exam, semester	7	8	6
Contact hours	90	18	18
Independent study, hours	119	191	191
Total course duration in hours / credit units	209/6		

1. Course outline

Studying the requirements for the technical condition of vehicles, for the correct execution of all documentation for the cargo, for the vehicle, for the driver and persons accompanying the cargo, taking into account international requirements.

2. Course learning outcomes

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

- modern achievements of science and technology in the field of creating technical solutions, production and operation of technological equipment;
- methods and techniques of engineering analysis of design solutions for technological equipment objects;
- methods of its design and optimization;

be able to:

- to carry out the analysis of the modes and operating conditions of the objects of technological equipment;
- design a control system and elements of instruments for maintenance and repair of vehicles;
- apply a systematic approach when conducting patent information research;

possess:

- methods of designing the main elements of equipment for the maintenance and repair of vehicles;
- methods of analytical calculation of the optimal characteristics of technological equipment;
- rules for the operation of technological equipment facilities of a motor transport organization.

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 - 37 Carry out work on the introduction of equipment and new technology in accordance with the rules and regulations, using technological projects of road transport organizations and their individual facilities and relevant technical documentation. PC - 38 Ensure the proper use of diagnostic and instrumentation to control the correctness and quality of maintenance and repair operations. PC - 39 Perform adjustment and installation work of stands, lifts, devices in accordance with the rules and regulations. PC - 40 Select appropriate equipment, apparatus, devices and tools for the implementation of technological processes of technical impacts. PC - 41 Organize and provide preventive maintenance and testing of technological equipment.

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;
- reports on classroom practical exercises with their oral defense.