

ROAD DIAGNOSTICS

(course title)

COURSE SYLLABUS ABSTRACT of higher education institution

Specialty 7-07-0732-01 «Construction of buildings and structures»

Concentration «Road of Construction»

	STUDY MODE	
	full-time	part-time (shortened program)
Year	3	3
Semester	6	6
Lectures, hours	34	8
Practical classes (seminars), hours	16	4
Laboratory classes, hours	16	4
Course paper, semester	6	6
Exam, semester	6	6
Contact hours	66	16
Independent study, hours	42	92
Total course duration in hours / credit units	108/3	

1. The objectives of the discipline are to study the requirements of State standards for the technical level and operational condition of roads; assessment of the technical condition of roads; accounting for the impact of traffic flows and weather and climate factors on road structures; determine transport and operational characteristics; determination of the degree of defectiveness and the causes of their occurrence; work to improve the quality of roads.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know: theory of reliability and durability of road structures; engineering methods for assessing the performance of roads; database of road diagnostics; regulatory framework for assessing the technical condition of roads; road engineering requirements; prospects for the development of road transport; international experience in experimental diagnostics of roads and trends in improving the quality of roads. be able to: assess the technical and operational condition of the road (make a defective statement); solve problems to determine the transport and operational characteristics; conduct experiments in laboratory and road conditions to assess the strength, evenness, roughness and grip of the road; determine the types of defects and their causes; establish the degree of defectiveness and design work to improve the quality of roads. possess: regulatory and technical documentation in the field of road diagnostics.

3. Competencies

As a result of mastering the discipline, the student must develop the following competencies: Be able to develop and improve oneself in professional activities, develop innovative receptivity and the ability to innovate. Determine transport and operational indicators and characteristics of highways, apply the results obtained when diagnosing highways and developing repair measures

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

The following forms are used to diagnose competencies:

- oral questioning during practical classes;
- conducting current control questions on individual topics;
- defense of individual assignments completed in practical and laboratory classes;
- student's presentation at the conference with a report prepared on topical scientific topics.

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

Current: individual assignments. Intermediate certification: oral exam

