TECHNICAL OPERATION OF BUILDINGS
(course title)

COURSE SYLLABUS ABSTRACT
of higher education institution
speciality

7-07-0732-01 Construction of buildings and structures
(speciality code and name)

Industrial and Civil Engineering
(specialisation code and name)

	STUDY MODE		
	full-time	part-time	part-time (shortened program)
Year	2	3	2
Semester	4	5	3
Lectures, hours	16	4	4
Practical classes (seminars), hours	16	4	4
Pass/fail, semester	4	5	3
Contact hours	32	8	8
Independent study, hours	76	100	100
Total course duration in hours / credit units	108/3	108/3	108/3

1. Course outline: 1. Introduction. 2. Deterioration of buildings. Types of deterioration. Service life of buildings. Reliability of structures. 3. Inspection of the technical condition of building structures. 4. Requirements for the technical operation of structural elements of buildings. 5. Requirements for the technical operation of structural elements of buildings. 6. Requirements for the technical operation of engineering systems. 7. Types of repairs. System of scheduled preventive maintenance. Planning of major and current repairs. 8. Features of seasonal operation of buildings.

2. Course learning outcomes

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

– **know:** methods for determining the physical and moral deterioration of buildings; limit values of deviations of specific service lives from average values; features of the system of scheduled preventive maintenance, main features of reconstruction, modernization and overhaul; basic concepts of reliability of operated buildings and structures; types of corrosion of building structures and methods of combating corrosion; technical maintenance of above-ground and underground structures of buildings; basic regulatory documents on the technical operation of buildings; technical preparation of buildings for the spring-summer and autumn-winter seasonal periods;

– **be able to**: correctly assess the physical and moral deterioration of buildings; calculate the average service life of buildings and its structures, deterioration and sudden failures; develop long-term, current and major repairs of buildings and structures; choose optimal design and construction solutions for the reconstruction and modernization of buildings; analyze the reliability of building systems;

– **to possess a skill**: using methods for determining the physical and moral deterioration of buildings, structures and their structures; use of normative, technical and methodological literature.

3. Competencies: Assess the technical condition and residual life of constructions. Apply technical regulatory legal acts on the design of special structures to solve engineering and construction problems.

4. Requirements and forms of midcourse evaluation and summative assessment of students is carried out to determine the compliance of the results of their educational activities with the requirements of educational standards, curriculum, and documentation of educational programs of higher education. The form of current certification of students is a pass. Current certification is carried out in oral and written form. The form of intermediate certification is the defense of individual assignments, which are carried out orally.