METHODS AND INSTRUMENTS FOR TECHNICAL DIAGNOSTICS

COURSE SYLLABUS ABSTRACT

Specialty: 6-05-0716-03 Information and measuring instruments and systems
Concentration: Information systems and technologies of non-destructive testing and diagnostics

	STUDY MODE	
	full-time	Part-time (shortened program)
Year	4	4
Semester	7	7
Lectures, hours	48	10
Practical classes (seminars), hours	16	4
Laboratory classes, hours	16	4
In-class test (semester, hours)	-	2
Exam, semester	7	7 (2)
Contact hours	80	20
Independent study, hours	82	142
Total course duration in hours / credit units	162/5	

1. Course outline. The academic discipline is aimed at acquiring theoretical knowledge and practical skills in diagnosing hazardous industrial facilities, studying the specifics of conducting technical diagnostics at various facilities, studying the basics of reliable and safe operation of hazardous industrial facilities, studying regulatory and legal documents that determine their operational features and standards for assessing the limit state.
2. Course learning outcomes

Upon completion of the course, students will be expected to

know: fundamentals of technical diagnostics theory; procedure for diagnosing hazardous industrial facilities; diagnostic parameters of facilities; design features of hazardous industrial facilities; regulatory documents governing the conduct of diagnostics of hazardous industrial facilities;

be able to: select programs for technical diagnostics; conduct technical diagnostics of objects; use regulatory documents defining the operational and diagnostic parameters of hazardous industrial facilities;

to possess a skill: rational selection of technical diagnostic methods, methods of information processing when monitoring and diagnosing industrial facilities.

3. Competencies. Be able to determine the quality and condition of technical systems and predict the possibility of their further operation.
4. Requirements and forms of midcourse evaluation and summative assessment. Current certification – defense of laboratory and practical work, intermediate certification – exam (written form).