DESIGN OF EXPERIMENTS

COURSE SYLLABUS ABSTRACT

Specialty code and name: 7-06-0716-03 Instrument Engineering Concentration: Information systems and technologies for non-destructive testing and diagnostics

	STUDY MODE	
	Full-time	Part-time
Year	1	1
Semester	1	1
Lectures, hours	34	8
Practical classes, hours	16	4
Exam, semester	1	1
Contact hours	50	12
Independent study, hours	108	96
Total course duration in hours / credit units	108/3	

1. Summary of the content of the discipline.
   Objective of the study of the discipline is in-depth training, the study of modern scientific achievements in the field of experimental planning and trends in their development.

2. Learning outcomes.
   As a result of mastering the discipline, the student must
   Know: basic concepts, techniques and models of experimental research, methods of processing experimental data, evaluation of their accuracy and reliability, as well as the basic mathematical methods used in this field.

   Be able to: develop a plan and analyze the data obtained during the experiment, conduct processing and visualization of the data obtained.

   To possess a a skill: in experiment planning and the use of complementary software.

3. Competencies: «Apply methods of scientific knowledge in research activities, generate and implement innovative ideas»; «Know how to set up an experiment, process and present its results»; «Decide research and innovation tasks on the basis of information and communication technologies application»; «Provide communication, exhibit leadership skills and ability, be able to team-build and develop strategic goals and objectives»; «Be able to predict conditions for professional activity and solve professional tasks under uncertainty».

4. Requirements and forms of midcourse evaluation and summative assessment: exam (oral), current assessment: preparing reports for practical classes.