

EXPERIMENT PLANNING

ABSTRACT to the curriculum of the higher education institution

Specialty: 7-06-0716-03 Instrument Engineering

	Form of higher education	
	Full-time	Extramural
Year	1	1
Term	1	1
Lectures, hours	34	8
Practical, hours	16	4
Exam, term	1	1
Total hours in class	50	12
Independent work, hours	94	132
Total hours in the discipline / credits	144/4	

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.

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

3. Competencies to be formed: **UK-1** «Be able to apply methods of scientific knowledge (analysis, comparison, abstraction, modeling, data validation, decision making, etc.) in independent research activities, generate and implement innovative ideas»; **UPK-1** «Know how to set up an experiment, process and present its results»; **UK-2** «Decide research and innovation tasks on the basis of information and communication technologies application»; **UK-4** «Provide communication, exhibit leadership skills and ability, be able to team-build and develop strategic goals and objectives»; **UK-6** «Be able to predict conditions for professional activity and solve professional tasks under uncertainty».

4. Requirements and forms of midterm assessment: exam (oral).