

SUMMARY OF THE EDUCATIONAL DISCIPLINE **« Modeling and planning scientific experiment»**

Cycle: research training.

Status: Normative discipline.

Academic year: 2019-2020, 1st semester.

Purpose: teaching the discipline - is the formation of postgraduate students of the scientific worldview, a holistic understanding of the methodology of scientific research and skills of practical application of specific methods of scientific search in professional activity, the study of principles and methods of management and implementation of scientific research, organization of the researcher's work, ethics and morals of science; acquisition of practical skills in organization of research, publication and implementation of research results.

The task of studying the discipline is to familiarize the graduate students with science as a system of knowledge, forms of its organization and management, a system of training of scientific personnel in Ukraine; give an idea of the methodology of research as a toolkit and as a science of methods and areas of their application in scientific activity; to reveal the value and essence of information support of scientific activity; to familiarize with organizational principles of scientific researches; give an idea of the stages of organizational and methodological preparation of scientific research; to familiarize with the method of experimental research and mathematical planning of the experiment; to familiarize with forms of approbation and realization of scientific researches; give an idea of the effectiveness of scientific activity and the method of its determination; to reveal the role and principles of scientific organization of work in scientific activity.

As a result of studying the discipline, the postgraduate student should:

to know: methodological bases of carrying out scientific researches; regulatory framework and its role in scientific research; methods of analysis and construction of scientific theories in economics; modeling of economic systems and processes; the procedure and main stages of the organization of scientific research; be familiar with the theoretical provisions for preparing the publication in international peer-reviewed publications; be able to structure a scientific publication in accordance with the requirements of international scientometric databases (eg Web of Science, Scopus, Web of Knowledge, Astrophysics, PubMed, Mathematics, Chemical Abstracts, Springer, Agris, GeoRef, etc.).

be able to: plan scientific research; to make and test scientific hypotheses; make a scientific description of the object of study; substantiate research methods, use of Internet space and Internet resources of science; evaluate the results of scientific research; to apply in practice general scientific, specific scientific and special methods of scientific research; use various forms of testing and implementation of scientific results; content and order of calculations of basic quantitative scientometric indicators of scientific activity efficiency (citation index, Hirsch index (h-index), impact factor (IF)).

The program of discipline

Topic 1. Science as a system of knowledge.

Topic 2: Methodological foundations of scientific knowledge.

Topic 3. Information support of the research process.

Topic 4. Problems of translation and editing of scientific texts.

Topic 5. Organization of work with international and abstract databases and scientometric platforms.

Topic 6. Forms of collective discussion of professional problems.