

# **"ECONOMIC AND MATHEMATICAL METHODS IN SYSTEM ANALYSIS"**

(name of the course)

## **OUTLINE**

### **TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION**

**Specialty 1-40 80 02 "System Analysis, Management and Information Processing" (by branches)**

**Professionalization: Information Control Systems**

**II level of higher education (master's degree)**

	<b>Form of higher education</b>
	<b>Full-time</b>
<b>Course</b>	<b>1</b>
<b>Semester</b>	<b>2</b>
<b>Lectures, hours</b>	<b>18</b>
<b>Laboratory work, hours</b>	<b>18</b>
<b>Test, Semester</b>	<b>2</b>
<b>Classroom hours in the educational discipline</b>	<b>36</b>
<b>Independent work, hours</b>	<b>72</b>
<b>Total hours of the discipline / credit units</b>	<b>108/3</b>

### **1 Summary of the contents of the study discipline**

Formation of the student's knowledge, abilities, skills necessary for the design, implementation, implementation, maintenance of data storages and OLAP-systems for automated information processing systems

### **2 Learning objectives**

As a result of the study of the discipline, the student should

#### **know:**

- the main types of economic and mathematical models;
- technology and methods of constructing economic and mathematical models;
- principles of construction, structure and technology of the use of software tools for economic and mathematical modeling;

#### **be able to:**

- carry out the construction of economic and mathematical models;
- use economic and mathematical models to analyze the object;
- conduct research and analysis of objects on the basis of economic and mathematical models in order to formulate proposals for their improvement;
- determine the optimal parameters and management of economic objects;

#### **possess:**

- methods of modeling economic objects;
- approaches to solving the problems of analysis and parametric optimization of economic objects;
- instrumental means of economical-mathematical.

### **3. Formable competencies**

SK-12 Improve the efficiency of business processes by improving information systems and information management, UK-1 Apply methods of scientific cognition in research activities, generate and implement innovative ideas.

### **4 Requirements and forms of current and interim certification.**

ZIZ, PKU, TA, credit.