**Abstract**

**of the work program of the discipline**

**«Medical informatics**:

**FUNDAMENTALS OF BIOMEDICAL STATISTICS AND DATA INTERPRETATION IN EVIDENCE-BASED MEDICINE»**

Direction of training (specialty): ***31.05.01 – Medical affair***

Discipline index **– Б1. О. 14. 02**

Level of higher education: ***specialist***

Graduate Qualification: ***Physician***

Faculty: ***Medical***

Department of Biophysics, Informatics and medical equipment

1. **THE PURPOSE AND OBJECTIVES OF THE DEVELOPMENT OF THE DISCIPLINE**

**Objective:** to familiarize students with the theoretical and methodological foundations of modern information technologies and the formation of the ability to use modern information technologies to solve professional tasks of a doctor in general hygiene, epidemiology.

**Tasks:**

− to form a systematic understanding of the possibilities and advantages of using modern information and digital technologies in the field of professional activity;

− to develop the ability to use information technology to solve educational and applied problems;

− to develop skills of working with software tools for the effective solution of educational and applied tasks.

1. **PLANNED RESULTS OF TRAINING IN THE DISCIPLINE**

**Formed in the process of studying the discipline competence FSES 3++**

|  |  |
| --- | --- |
| **Code and name of the competence (or part thereof)** | |
| **Code and name of the competence achievement indicator** | |
| **General professional competencies (GPC)** | |
| **GPC-11.**  Capable of preparing and applying scientific, scientific-production, design, organizational, managerial and regulatory documentation in the healthcare system | **CAI-1**. Prepares and applies scientific, scientific and production documentation |
| **Know**: modern communication technologies, for academic and professional interaction.  **Be able to**: search and select scientific, regulatory and organizational and administrative documentation in accordance with the set goals, their analysis and application for solving professional tasks.  **Possess**: modern information and communication technologies for professional interaction. | |
| **GPC-10.** He is able to understand the principles of modern information technologies and use them to solve the tasks of professional activity. | **CAI-1.** Understands the principles of modern information technologies (interactive mode, integration, flexibility of change processes). |
| **To know:** the principles of modern information technologies and use them to solve the tasks of professional activity, the general characteristics of the processes of collecting, storing, processing and transmitting information in the field of professional activity; the main means and methods of ensuring information security when working with various sources of information.  **Be able to:** carry out an effective search and use information resources for professional activities, rationally choose and use information technologies to effectively solve tasks; analyze and evaluate information sources, information resources in solving research and practical tasks; apply methods and means of information protection.  **Possess**: the principles of modern information technologies (interactive mode, integration, flexibility of change processes), the basic technologies of information retrieval in solving problem situations; technologies for collecting, storing and processing information, taking into account the basic requirements of information security. | |

1. **THE PLACE OF DISCIPLINE IN THE STRUCTURE OF THE EDUCATIONAL PROGRAM**

The discipline "***Fundamentals of biomedical statistics and interpretation of data in evidence-based medicine***" belongs to the mandatory part of the Block 1 of the discipline (modules) **Б1. О. 14. 02** of the curriculum in the specialty ***31.05.01 General medicine***.

The preceding ones, on which the discipline is directly based "***Fundamentals of biomedical statistics and interpretation of data in evidence-based medicine***", is a school course "***Informatics and ICT***".

1. **The total labor intensity of the discipline**

The total labor intensity of the discipline is ***2*** credit units, academic hours ***72***.

Lectures: ***8*** hours

Practical training: ***34*** hours

Independent work: ***30*** hours

Type of intermediate certification – ***offset***.

1. **The main sections of the discipline**

|  |  |
| --- | --- |
| *Section number* | *Name of the discipline section* |
| 1 | ***Evidence-based medicine. Principles of evidence-based medicine.*** |
| 2 | ***Analysis of medical data using mathematical statistics*** |
| 3 | ***Statistical processing of biomedical research using MS Excel*** |
| 4 | ***Statistical analysis of categorized data*** |
| 5 | ***Statistical analysis of biomedical data using the Statistica package*** |
| 6 | ***Single-factor correlation and regression analysis of medical research data*** |
| 7 | ***Computer modeling for solving pharmacokinetics problems*** |

1. **Form of intermediate certification**

***Offset***, semester ***6.***

Intermediate certification procedure - the offset is conducted orally in the form of an ***interview*** on tickets.