MINISTRY OF EDUCATION AND SCIENCE OF THE KYRGYZ REPUBLIC,

Government-run Educational-Institution of Higher Professional Education
Kyrgyz-Russia Slavic University
School of Medicine

ENDORSED BY

_____ 2024 y.

Medical informatics
Course Outline (Module)

Assigned to the department of	**Physics, Medical Informatics and Biology**
Academic Curriculum	560001 – KR General Medicine
Qualification	**Specialist**
Mode of Study	**Intramural**
The Course outline developed by:	Kondrateva E. I., Sorokin A. A.

Course Hours Scheduling (per semester)

Semester Academic Year	**3(2.1)**		**Total**	
Weeks	19			
Type of Training	EP	WP	EP	WP
Lectures	16	16	16	16
Practical Session	48	48	48	48
Face-to-face Learning during the period of theoretical training	0,3	0,3	0,3	0,3
Including interactive	4	4	4	4
Total in class Session	64	64	64	64
Face-to-face Learning	64,3	64,3	64,3	64,3
Individual work	43,7	43,7	43,7	43,7
Total	108	108	108	108

1. COURSE OUTLINE OBJECTIVES	
1.1	Elaboration of common vision of the structure, concepts, methods and techniques of medical informatics for students. To show the simplicity and consistency of the basic computer technologies involved in medicine in order to remove the often-emerging potential barrier of fundamental unknowability for a particular individual of mathematical, statistical or hardware.
1.2	Studying of standard means of computer science for solving medical problems. Development of the ability to compose a plan for the solution and implement it using the chosen methods. Development of the skill of analysis and practical interpretation of the results. Development of the ability to use various kinds of reference materials and manuals, necessary for solving practical problems.

2. PLACE OF THE COURSE IN THE EDUCATIONAL PROGRAM	
Educational Program Units:	Б1.В.ДВ.2
2.1	**Students' Preliminary Training Requirements:**
2.1.1	Physics and mathematics
2.2	**Course Units and Practical Sessions imposing the prior Proficiency:**
2.2.1	Evidence-Based Medicine
2.2.2	Epidemiology
2.2.3	Clinical Pharmacology

3. STUDENTS' COMPETENCIES RESULTING FROM THE COURCE UNIT (MODULE)	
IC-2: able and ready to use information, bibliographic resources and information and communication technologies, taking into account the basic requirements of information security	
Know:	
Level 1	modern information and bibliographic resources
Level 2	basic science medical and biological terminology
Level 3	modern statistical information technologies
Ability:	
Level 1	to find scientific medical and biological information
Level 2	to analyze and systematize the information received
Level 3	work with scientific and technical information, applying in professional activities
Skills:	
Level 1	to working with scientific medical and biological information
Level 2	to assess medical and biological information
Level 3	to interpret the results

Final Students' Competences	
3.1	**Know:**
3.1.1	definition and basic concepts of medical informatics;
3.1.2	structure of medical research;
3.1.3	the concept of signals and the nature of their occurrence;
3.1.4	definition and classification of random variables;
3.1.5	health resources, which you can trust;
3.1.6	basic principles of statistical information processing;

3.1.7	basic methods of using a statistical processing of medical data;
3.1.8	the main points of the analysis of scientific medical data and conclusions on research
3.2	**Ability:**
3.2.1	Find and analyze data obtained from different scientific sources;
3.2.2	create a scientific base in the SPSS application program;
3.2.3	to establish the necessary medical tasks, on the basis of the received medical data;
3.2.4	to analyze and justify the conclusions from the received medical data;
3.2.5	use modern computers for processing medical information;
3.2.6	use different methods of analysis when working with scientific medical data;
3.2.7	analyze the results of experiments;
3.3	**Skills:**
3.3.1	methods of creating a scientific base in the SPSS application program;
3.3.2	methods of formulation the necessary medical and biological tasks, according to the available data;
3.3.3	Theoretical and practical analysis and reasoned conclusions on the medical data obtained;
3.3.4	methods of practical use of modern computers for processing medical information;
3.3.5	the skills of using different methods of analysis when working with scientific medical data;
3.3.6	methods of analyzing new scientific and educational literature, the results of experiments;