MINISTRY OF EDUCATION AND SCIENCE OF THE KYRGYZ REPUBLIC,

Government-run Educational-Institution of Higher Professional Education
Kyrgyz-Russia Slavic University
Institute of Clinical Medicine and Biomedical Technologies

Endorsed by
the Director, Assoc. Prof. Abilova S.S.

Evidence Based Medicine
Course Outline (Module)

Assigned to the department of	**Physics, Medical Informatics and Biology**
Academic Curriculum	560001_21_5LDi.pli.xml 560001 – KR General Medicine (for foreign student)
Qualification	**medical doctor**
Mode of Study	**intramural**
total credit value	**2 credit points**

The Course outline developed by: Sorokin A.A.

Course Hours Scheduling (per semester)

Semester Academic Year	**11(6.1)**		**Total**	
Weeks	19			
Type of Training	AC	CO	AC	CO
lectures	16	16	16	16
Practical session	16	16	16	16
Contact work during the period of theoretical training	0,3	0,3	0,3	0,3
including interactive	4	4	4	4
Total in class session	32	32	32	32
contact work	32,3	32,3	32,3	32,3
individual work	27,7	27,7	27,7	27,7
Total	60	60	60	60

1. COURSE OUTLINE OBJECTIVES	
1.1	Development of students' common vision of the structure, concepts, methods and techniques of evidence-based medicine.
1.2	The development of the thesaurus and operational capabilities to a level where their interaction will allow quite simply to formalize the tasks that arise in the process of practical work and solve them.
1.3	To show the simplicity and consistency of the main statistical criteria involved in evidence-based medicine in order to remove the often emerging potential barrier of fundamental unknowability for a particular individual, statistical means of solving medical problems.
1.4	Teaching student's knowledge, skills and practical skills in EBM, with the help of which it is possible to independently master the technology for assessing the quality of medical information and its applicability in clinical practice.
1.5	Development of the ability to draw up a solution plan and implement it using the selected methods.
1.6	Development of the ability to analyze and practically interpret the results obtained.
1.7	Developing the ability to use various kinds of reference materials and manuals necessary for solving practical problems.

2. THE PLACE OF DISCIPLINE IN THE STRUCTURE OF THE GENERAL EDUCATION PROGRAM	
Cycle (section) GEP:B1.O	
2.1	**Requirements for the preliminary preparation of the student:**
2.1.1	Medical Informatics
2.1.2	microbiology, virology
2.1.3	normal physiology
2.1.4	Pathophysiology, clinical pathophysiology
2.1.5	Traumatology, orthopedics
2.1.6	Ophthalmology
2.1.7	Pediatrics
2.1.8	Otorhinolaryngology
2.2	**Disciplines and practices for which the development of this discipline (module) is necessary as previous:**
2.2.1	Residence training
2.2.2	Internship training
2.2.3	Conducting clinical trials
2.2.4	Conducting clinical activities

3. STUDENT COMPETENCES FORMED AS A RESULT OF MASTERING THE DISCIPLINE (MODULE)	
OK-3 - is able and ready to collect, process and interpret, using modern information technologies, the data necessary to form judgments on relevant social, scientific and ethical problems	
know:	
Level 1	- methods for searching for evidence in existing databases (PubMed, Embase, Cochrane etc.);
Level 2	- accessible databases of evidence; - operators and criteria used in international databases; - differences and practical relevance of using original research, systematic reviews and literature reviews
Level 3	- primary and secondary sources of evidence;
Ability:	
Level 1	- use the structure of a well-formulated clinical question to search for evidence-based information
Level 2	- search international databases - form conclusions based on systematic reviews of the literature
Level 3	- evaluate the reliability of the results of the study;

	- interpret the results of scientific research - formulate the goals and objectives of an epidemiological study
Skills:	
Level 1	- planning an epidemiological study;
Level 2	- use of operators (OR, NOT, AND) in international databases;
Level 3	- searching for evidence-based information in existing databases (PubMed, Embase, Cochrane etc.);
OK-7: Capable of analyzing and evaluating the socio-economic and cultural consequences of new developments in science, engineering, technology, and the professional sphere, as well as organizing the activities of expert/professional groups or organizations and presenting the results of their work.	
know:	
Level 1	- To be familiar with the key trends in the development of science, engineering, and technology in medicine; the methodology for assessing the socio-economic and cultural impacts of innovations; and the principles for organizing the work of expert groups, as well as the procedures for presenting their findings.
Level 2	-
Level 3	-
Ability:	
Level 1	- Be able to analyze the impact of new developments in science and technology on the professional field; organize the work of small groups to address expert-level tasks; and present the results of analytical work in a well-reasoned manner.
Level 2	-
Level 3	-
Skills:	
Level 1	- Possess the skills for the systematic assessment of the consequences of scientific and technological progress within the context of healthcare; the methods for organizing and managing the work of expert groups; and the tools for professional communication and the presentation of analytical findings.
Level 2	-
Level 3	-
PC-20: Capable and prepared to analyze and publicly present medical information based on evidence-based medicine.	
know:	
Level 1	- Understand the fundamental principles of evidence-based medicine, methods for the statistical analysis of medical data, criteria for the validity of clinical studies, and the rules for the public presentation of scientific and medical information.
Level 2	-
Level 3	-
Ability:	
Level 1	- The ability to critically analyze medical publications and one's own research data; to interpret statistical indicators within a clinical context; and to prepare and publicly present reports, presentations, and accounts based on evidence-based data.
Level 2	-
Level 3	-
Skills:	
Level 1	- Possess a mastery of the methodology of evidence-based medicine for the comprehensive analysis of medical information; possess skills in professional public communication; and have the ability to present the results of scientific research and clinical data at a high expert level.
Level 2	-
Level 3	-

As a result of mastering the discipline, the student must

3.1	**Know:**
3.1.1	definition and basic concepts of evidence-based medicine
3.1.2	types of designs
3.1.3	hierarchy of evidence
3.1.4	basic statistical methods in evidence-based medicine;
3.1.5	the formulation of the clinical question
3.1.6	technology for assessing the quality of clinical guidelines

3.1.7	highlights of the analysis of scientific medical data and conclusions from studies
3.2	**Ability:**
3.2.1	present research results in the SPSS application
3.2.2	set the necessary medical tasks, according to the received medical data
3.2.3	analyze and substantiate conclusions based on the obtained medical data
3.2.4	use modern computers to process medical information
3.2.5	use various methods of analysis when working with scientific medical data
3.2.6	analyze new scientific and educational literature, 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 setting the necessary medical tasks
3.3.3	theoretical and practical methods of analysis and obtaining reasonable conclusions on the received medical data
3.3.4	methods of practical use of modern computers for processing medical information
3.3.5	skills in using various methods of analysis when working with scientific medical data
3.3.6	methods of analysis of new scientific and educational literature, experimental results