

MINISTRY OF EDUCATION AND SCIENCE OF THE KYRGYZ REPUBLIC

Government-run Educational Institution of Higher Professional Education
Kyrgyz-Russian Slavic University named after B.N. Yeltsin
School of Medicine



ENDORSED BY

Vice-rector

Professor Anes Zarifyan

(Signature)

« 28 » 02. 2023

Chemistry

Course Outline (Module)

Assigned to Academic Curriculum	560001-KR General Medicine
Qualification	Specialist
Mode of Study	Intramural
Total credit value	Credit points

The course outline developed by: Abdurashitova J.A., Ibraeva I.G.

Course hours scheduling (per semester)						
Semester Academic Year	1 (1.1)		2 (1.2)		Total	
Weeks	18		19			
Type of training	AC	CO	AC	CO	AC	CO
Lectures	18	18			18	18
Lab practical	36	36			36	36
Practical session						
Contact work during the period of theoretical training						
Including interactive session						
Total in-class session	54	54			54	54
Face-to-face learning						
Individual work	18	18			18	18
Total	72	72			72	72

1. COURSE OUTLINE OBJECTIVES

- to acquire knowledge related to the structure, properties and mechanism of functioning of biologically active substances;
- to establish a solid foundation for studying such disciplines as biological chemistry, microbiology, physiology, pathological physiology;
- to form scientific vision of basic physical and chemical regularities in the behavior of biochemical processes;
- to develop integral perception of chemistry which allows to understand functioning of the organism as a whole and its interaction with the environment.

PLACE OF THE COURSE IN THE EDUCATIONAL PROGRAM

Educational Program Units: B1.B

2.1. Students' Preliminary Training Requirements:

2.1.1. Mathematics

2.1.2. Biology

2.1.3. Chemistry

2.2. Course Units and Practical Sessions imposing the prior Proficiency

2.2.1. Biochemistry

2.2.2. Normal physiology

2.2.3. Pharmacology

2.2.4. Clinical biochemistry

3. STUDENTS' COMPETENCIES RESULTING FROM THE COURSE UNIT (MODULE)

GS (1). Able to analyze socially significant problems and processes and use in practice methods of natural-scientific, mathematical and humanitarian sciences in various types of professional and social activities.

Knowledge:

Level 1.

- methodology of processing scientific and technical information to solve standard tasks of professional activity;
- basic laws of physical, chemical and biochemical concepts, information and communication technologies, including physical, mathematical concepts and research methods for solving professional tasks.

Skills:

Level 1.

- to use medical and biological terminology, information and communication technologies, and research methods to solve standard tasks of professional activity;
- to apply basic physical and chemical concepts and research methods to solve professional tasks;

- to search for scientific and technical information using general and specialized databases and apply specialized software when carrying out theoretical calculations and processing experimental data to solve standard tasks of professional activity;

Expertise:

Level 1.

- skills of working with scientific and educational portals;
- basic skills of using standard as well as specialized software and databases for statistical processing of research results and their presentation to the scientific community;
- biomedical and other terminology;
- elementary techniques of work in the biochemical laboratory;
- general safety regulations for handling computers, laboratory equipment and chemical reagents;
- skills of mathematical, chemical and biochemical thinking;
- skills of independent work with reference books, educational and scientific literature.

3. Final Students' Competences

3.1. Knowledge:

3.1.1.

- general patterns of natural sciences;
- general physical chemical concepts, laws and methods of analysis.

3.2. Skills:

3.2.1.

- to apply basic concepts of natural scientific disciplines;
- to predict the progress of biochemical processes occurring in living organisms;
- to interpret the obtained results at the modern level.

3.3. Expertise:

- the knowledge of the basic principles of the natural sciences, experimental skills for studying and analysis of biochemical processes.