

MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
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



Chemistry

Course Outline (Module)

Assigned to Academic Curriculum	31050150_21_12GM.pli.xml 31.05.01. 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	
	18		19			
Type of training	AC	CO	AC	CO	AC	CO
Lectures	18	18	18	18	36	36
Lab practical	36	36	36	36	72	72
Practical session						
Contact work during the period of theoretical training	0,3	0,3	0,3	0,3	0,6	0,6
Including interactive session	2	2	3	3	5	5
Total in-class session	54	54	54	54	108	108
Face-to-face learning	54,3	54,3	54,3	54,3	108,6	108,6
Individual work	17,7	17,7	17,7	17,7	35,4	35,4
Total	72	72	72	72	144	144

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 living organism functioning on the whole and its interactions with the environment.

2. PLACE OF THE COURSE IN THE EDUCATIONAL PROGRAM

Educational Program Units: B1.B

2.1. Students' Preliminary Training Requirements:

2.1.1. Biology

2.1.2. 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)

GPC-10: *Be able to solve standard tasks of professional activity with the use of information, bibliographic resources, medical and biological terminology, information and communication technologies, taking into account the basic requirements of information security.*

Knowledge:

Level 1.

- basic sources of information, bibliographic resources;
- methodology of processing scientific and technical information in the Internet and specialized databases;
- basic techniques of working with specialized software to solve standard tasks of professional activity;

- basic laws of physics and chemistry, medical and biological terminology, information and communication technologies, including physical, mathematical (or other) concepts and research methods for solving professional tasks.

Skills:

Level 1.

- to use medical and biological terminology, information and communication technologies, including physical, mathematical (or other) concepts 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 apply information, bibliographic resources, processing methods;
- 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;
- to observe confidentiality when working with information databases.

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 physical, chemical and biological laboratories;
- general safety regulations for handling computers, laboratory equipment and chemical reagents;
- skills of mathematical, biological, chemical and biochemical thinking;
- skills of independent work with reference books, educational and scientific literature.

Final Students' Competences.

3.1. Knowledge:

3.1.1. General chemical biological concepts and laws.

3.2. Skills:

3.2.1. To use general laws of chemistry, biology and other natural sciences for analysis of processes occurring in living organisms.

3.3. Expertise:

The knowledge of the basic principles of the natural sciences, experimental skills for studying biochemical processes.