

Educational Institution “Royal Metropolitan University”

Department “Morphological and Fundamental disciplines”




SYLLABUS

**in the discipline "General and clinical biochemistry"
for students of specialty 560001 "General Medicine"**

Form of study	full-time
Course	1,2
Semester	2,3
Zachet	2
Exam	3
Total credits according to the curriculum	4
Total hours according to the curriculum	120-
Lectures	36
Practical classes	36
Independent work	48

Syllabus developer:
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Reviewed and approved at a meeting of the
Department of Fundamental Disciplines
Protocol No. 1 from "02" 09 2025 y.
Head of the department Jalilova A.A.



(signature)

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Name and complexity of the discipline.

Course	Semester	Weeks	Total academic hours		Number of hours for independent work		Total hours	Number of modules
			Lecture	Practical classes	SIW	SIWT		
1	2	18	36	36	32	48	120	2

Annotation of subject

The tremendous advances in biological chemistry in recent years have touched the very foundations of natural science. Fundamental discoveries in the field of the structure of biopolymers, molecular mechanisms of storage and transmission of information, cloning of genes and the mechanism of biosynthesis of specific proteins, regulation of metabolic processes at the molecular, cellular and organismal levels served as the basis for the formation of new views on the essence of life processes. It is obvious that these advances in biochemistry should be taken for the training of medical students.

Purpose and objectives of the discipline.

Purpose of the discipline: on the basis of the achievements of modern biochemical science, to form students' systemic knowledge about

- structure and functions of the proteins, nucleic acids;
- biological role and mechanism of action
- vitamins, hormones and enzymes;
- regulation of gene expression;
- mechanisms of DNA, RNA and protein biogenesis;
- mechanisms of regulation of metabolism and the role of the hormone receptor system and secondary intracellular messengers in the transmission of nervous and hormonal signals;
- the chemical composition and metabolic processes in the specialized organs and tissues, such as blood, liver, kidneys, nervous, muscle, connective and bone to provide a theoretical basis for the professional activity of a general practitioner (family doctors).

Objectives of the discipline:

- Student should learn chemical composition of human organs and tissues, biochemical processes in the body, i.e. metabolism as a whole.
- Student should know normal ranges of biochemical indices, molecular basis of functions of human body.
- Student should be able to analyze results of biochemical tests to diagnose diseases and monitor an effectiveness of treatment.

- Student should master modern biochemical methods of analyses and apply them in practice.

Planned results of mastering the academic discipline

After mastering the discipline “General and Clinical Biochemistry” the student:

Will know:

- safety rules and work in biochemical laboratories with reagents, instruments, animals;
- physical and chemical essence of processes occurring in a living organism at the molecular, cellular, tissue and organ levels;
- principles of implementation of methods for determining the concentration of individual substrates and enzyme activity in biological material; structure and functions of the most important chemical compounds (nucleic acids, natural proteins, water-soluble and fat-soluble vitamins, hormones, etc.);

Will be able to use:

- physical and chemical methods of analysis in medicine (chromatography, spectrophotometry, electrophoresis, blotting, etc.);
- modern biochemical methods in laboratory diagnosis of diseases;

Will be able to analyze:

- enzyme activity in biological objects.
- the amount of proteins and fractions in blood plasma and protein preparations.
- vitamin content in products of plant and animal origin.
- the content of some metabolites of carbohydrate, lipid, protein metabolisms in biological objects (urea, uric acid, bilirubin, glucose, total lipids, cholesterol, beta lipoproteins, etc.)
- acidity of gastric juice.

Will be able to assess:

- results of the most common functional diagnostic methods used to identify pathologies of the blood, heart and blood vessels, lungs, kidneys, liver and other organs and systems;
- data and phenomena obtained as a result of experiments and laboratory work, using modern methodological principles.

Contents of the academic discipline

№	Name chapters and topics of discipline (lectures and practical classes)	Auditory lessons				Total hours for classroom work	Used educational technologies, methods and methods of teaching	Models	Forms of current and border control academic performance
		Lectures	Seminars	Practical lessons	Laboratory works				
1	Digestion of lipids in the gastrointestinal tract. Lipolysis. Biooxidation of higher fatty acids.	2		1	1	4	Lecture- presentation Practical lesson. Forum type discussion.	Laboratory equipment.	Oral questioning with reinforcement of material. Solving crossword puzzles.
2	Metabolism of ketone bodies. Biosynthesis of lipids.	2		1.5	0.5	4	Lecture- presentation Practical lesson. Forum type discussion.	Laboratory equipment.	Oral questioning with reinforcement of material; Assessment of the development of practical skills; Testing
3	Regulation and pathology of lipid metabolism.	2		1.5	0.5	4	Lecture- presentation Practical lesson. Practicing practical skills;	Laboratory equipment.	Oral questioning with reinforcement of material; Assessment of the development of practical skills. Testing.
4		2		1	1	4			

	Biological value of proteins. Digestion of proteins in the gastrointestinal tract.	4					Lecture- presentation Practical lessons: Working in small groups (TBL); Analysis of situational problems.	Laboratory equipment.	Oral questioning with reinforcement of material; Solving situational tasks; Testing
5	Intermediate amino acid metabolism.			1	1	6	Lecture- presentation Practical lessons. Analysis of situational problems	Laboratory equipment.	Oral questioning with reinforcement of material; Assessment of the development of practical skills Testing
6	Biosynthesis of nucleic acids.	1		2		3	Lecture- presentation Practical lesson: Practicing practical skills; Forum type discussion; Analysis of situational problems		Oral questioning with reinforcement of material Assessment of the development of practical skills (abilities); Solving situational problems;
7	Protein synthesis. Genetic code. Components of the protein synthesizing system.	1		2		3	Lecture- presentation Practical lesson: Practicing practical skills;		Oral questioning with reinforcement of material Assessment of the development of practical skills (abilities). Solving situational problems Testing

8	Modul №1			2		2	Testing by using the educational platform test.edu.kg		Individual student survey
9	Water and saly metabolism.	2		2		4	Lecture using video mater. Discussion of theoretical material		Oral questioning of material Checking the SIW.
10	Biochemistry of kidneys.	2		2		4	Lecture using video mater. Discussion of theoretical material Listening to abstracts.		Oral questioning of material Checking the SIW
11.	Биохимия крови.	4		2		6	Лекция-презентация Прослушивание рефератов.		Oral questioning of material Checking the SIW.
12.	Biochemistry of liver 1.	2		2		4	Lecture-presentation Listening to abstracts.		Oral questioning of material Checking the SIW.
13	Biochemistry of liver 2.	2		2		4	Lecture using video mater. Practical lesson: Discussion of theoretical material Brainstorm; Listening to abstracts.		Oral questioning of material Checking the SIW.

14	Biochemistry of nervous tissue.	2		1.5	0.5	4	Practical lesson: Group creative task		Oral questioning with reinforcement of material Checking the SIW.
15	Biochemistry of muscle tissue.	2		2		4	Lecture-presentation Practical lesson: Forum type discussion		Listening to students' essays Checking the SIW
16	Biochemistry of connective tissue.	2 1		2		4	Lecture-presentation Practical lesson: Securing a topic in the form of a lecture on the topic of the lesson Listening to student reports		Oral questioning with reinforcement of material Checking the SIW Testing
17	Modul №2			2		2	Testing by using the educational platform test.edu.kg		Writing control work
18	Passing credits.			2		2			Individual oral interview

Methodological recommendations for preparing for practical classes.

Practical classes are held after lectures and are explanatory, generalizing and reinforcing in nature. They can be carried out not only in the classroom, but also outside the educational institution.

During practical classes, students perceive and comprehend new educational material. Practical classes are systematic, regularly following each lecture or two or three lectures.

Practical classes are carried out according to the schedule of the educational process and independent work of students in the disciplines.

When preparing for practical classes, it is necessary to study in advance the methodological recommendations for its implementation. Pay attention to the purpose

of the lesson, the main questions to prepare for the lesson, and the content of the topic of the lesson.

Before each practical lesson, the student studies the seminar lesson plan with a list of topics and questions, a list of references and homework on the material presented at the seminar. The following scheme of preparation for the seminar lesson is recommended for the student:

1. work through lecture notes;
2. read the basic and additional literature recommended for the section being studied;
3. answer the questions of the seminar lesson plan;
4. study the topic and select literature for writing abstracts, reports, etc.

Plan for organizing student independent work

Thematic plan for student independent work (SWS)

Semester 3

Theme of SIW	Task for SIW	Hours	Litreture	Dead line	Max points
Lipids of the human tissues.	Making the a brief concept.	3	Marks Dawn B. Biochemistry, 1994. P. 185–189, 197–198.	1	10
Disorders of lipid metabolism.	Making the glossary.	3	Chatterjea M. N. Textbook of medical biochemistry, 2007. P. 405–424.	2	10
The main stages of protein metabolism and their characteristics.	Making a cross word. .	3	Murray R. K. Harper's illustrated biochemistry, 2006. P. 187–195.	3	10
Genetic Engineering.	Presentation.	3	Marks Dawn B. Biochemistry, 1994. P. 202–208.	1	10
Biochemistry of kidneys. Metabolism of phosphates and calcium. Role of hormones and vitamins its regulation.	Составление тестовых заданий.	3	Marks Dawn B. Biochemistry, 1994. P. 202–208. Chatterjea M. N. Textbook of medical, 2007. P. 381–388, 398–405.	1	10

Biochemistry of blood.	Assay.	3	Marks Dawn B. Biochemistry / Dawn B. Marks. – Baltimore, Philadelphia : Williams & Wilkins, 1994. – P. 202–208.	1	10
Biochemistry of connective tissue.	Report.	3	Chatterjea M. N. Textbook of medical, 2007. P. 381–388, 398–405.	1	10
Biochemistry of nervous tissue.	Makins MCQs.	2	Murray R. K. Harper's illustrated biochemistry, 2006. – P. 187–195.	1	10

Methodological recommendations for preparing independent work

In studying the discipline “General and Clinical Biochemistry” the following types of independent work of students are used:

- study of theoretical material from lecture notes and recommended textbooks, educational literature, reference sources;
- independent study of some theoretical issues not covered in lectures, with writing abstracts and preparing presentations;

Students are invited to read and meaningfully analyze monographs and scientific articles on biochemistry. The results of working with texts are discussed in practical classes.

To develop independent work skills, students complete assignments, independently turning to educational, reference and scientific-methodological literature. Testing the completion of assignments is carried out both in practical classes with the help of students’ oral presentations and their collective discussion, and with the help of written independent work.

An abstract is a brief written summary of the content of a scientific work on a given topic. This is an independent research work where the student reveals the essence of the problem under study with elements of analysis on the topic of the essay.

Presents various points of view, as well as his own views on the problems of the topic of the essay. The content of the abstract should be logical, the presentation of the material should be of a problem-thematic nature.

Requirements for writing an abstract:

The volume of the abstract can range from 9-10 printed or handwritten pages.

Main sections: table of contents (outline), introduction, main content, conclusion, bibliography.

The text of the abstract must contain the following sections:

- title page indicating: name of the university, department, topic of the abstract, full name of the author and full name of the teacher
- introduction, relevance of the topic.

- main section.
- conclusion (analysis of the results of the literature search); conclusions.
- the list of literary sources must have at least 10 bibliographic titles, including network resources.

The text part of the abstract is drawn up on a sheet of paper in the following format: indentation at the top – 2 cm; left indent – 3 cm; indentation on the right – 1.5 cm; bottom indent – 2.5 cm; text font: Times New Roman, font height – 14, space – 1.5; page numbering is at the bottom of the sheet. There is no number on the first page.

The abstract must be completed competently in compliance with the culture of presentation. There must be references to the literature used, including periodical literature for the last 5 years.

Abstract evaluation criteria:

- relevance of the research topic;
- correspondence of the content to the topic;
- depth of material elaboration;
- correctness and completeness of development of the questions posed;
- the significance of the findings for further practical activities;
- correctness and completeness of the use of literature;
- compliance of the abstract design with the standard;
- quality of communication and answers to questions when defending an abstract.

A report is a type of brief but informative message about the essence of the issue under consideration, various opinions about the subject being studied. In some cases, it is allowed to present the author's own point of view within the framework of thematic issues.

Requirements for the report:

The volume of the abstract should not exceed five printed pages.

A quality report has four main structural elements:

- Introduction;
- Introduction (at this stage the speaker must interest the audience, formulate the relevance and novelty of the research, emphasize the importance and purpose of the work performed.)
- The main part (it talks about the research methods used, the work done, and analyzes the results obtained);
- Conclusion (summarizing the results of the work).

The text part of the report is drawn up on a sheet of the following format:

- indentation at the top – 2 cm; left indent – 3 cm; indentation on the right – 1.5 cm; bottom indent – 2.5 cm;
- text font: Times New Roman, font height – 14, space – 1.5;
- page numbering is at the bottom of the sheet. There is no number on the first page.

Criteria for evaluation:

- timeliness of submission;
- compliance with requirements;
- depth of material elaboration;

- relevance of the content to the topic;
- correctness and completeness of use of the source.

A crossword is a puzzle task; its essence is to fill in intersecting rows of cells (vertically and horizontally) with words that can be solved according to the given list of definitions of the meaning of these words (questions).

Requirements for crossword design:

Crossword type – classic;

- the presence of unfilled cells in the crossword puzzle grid is not allowed;
- random letter combinations and intersections are not allowed;
- the hidden words must be nouns in the nominative case;
- two-letter words must have two intersections;
- abbreviations are not allowed;
- reductions are not allowed;
- all texts must be written legibly;
- each sheet must contain the author's surname;
- the crossword picture must be clear;
- grids of all crossword puzzles must be completed in two copies: with words filled in and only with position numbers;

Answers to the crossword puzzle are published separately, they are intended to check the correctness of the crossword puzzle solution.

Criteria for evaluation:

- originality of design;
- timeliness of submission;
- crossword volume;
- clarity of question formulation;
- aesthetics of work.

References:

Main textbooks

1. Mark's Basic Medical Biochemistry. 6 ed. Michael Lieberman, Alisa Peet.
2. Essential Biochemistry for Medical Students with Problem-Solving Exercises : textbook ed. by A. I. Glukhov, A. E. Gubareva. 3. Moscow : GEOTAR-Media, 2024
4. South Asian Edition Of Lippincott Illustrated Reviews, Biochemistry 7 Th Edition:2017 (Denise R. Ferrier)
5. Biochemistry PG Notes (Based on video lectures by Dr. Smily Pruthi Pahwa)
6. Biochemistry for next/FMGE. Concise Succinct+Illustrated. A. Balasubramanian, G/ Bhanu Prakash P.Harinath
- 7.Lippincott Illustrated reviews Biochemistry. ed. Emine Ercican, Abali, Susan D. Cline
8. Harper's Illustrated Biochemistry. 31 ed. Victor W Rodwell, David A. Bender
10. Textbook of Medical Biochemistry 8 ed. MN. Chatterjea, Rana Shinde

11. Preclinical Biochemistry Review. Lecture Notes. Kaplan. 2025
12. South Asian Edition of Lippincott Illustrated Reviews. Biochemistry 8th Edition:2020 (Denise R. Ferrier)
13. Biochemistry of the connective tissue. Biochemistry of mixed saliva : tutorial / ed. By A. I. Glukhov, E. V. Babchenko. — M. : GEOTAR-Media, 2019. **Textbooks for further reading:**
14. Biochemistry of the connective tissue. Biochemistry of mixed saliva : tutorial / ed. By A. I. Glukhov, E. V. Babchenko. — M. : GEOTAR-Media, 2019. — 128 pages with illustrations.
15. Biochemistry with exercises and tasks : textbook / ed. by A. I. Glukhov, V. V. Garin. — M. : GEOTARMedia, 2020. — 296 p. : ill.
16. Analytical Chemistry. Analytics 1. General Theoretical Foundations. Qualitative Analysis : textbook / ed. V. Yu. Grigorieva. — Moscow : GEOTARMedia, 2021. — 608 p. : ill.
17. Analytical Chemistry. Analytics 2. Quantitative analysis. Physical-chemical (instrumental) analysis methods : textbook / Yu. Ya. Kharitonov ; ed. V. Yu. Grigorieva. — Moscow : GEOTAR-Media, 2021. — 592 p. : ill.
18. Biochemistry of the connective tissue. Biochemistry of mixed saliva : tutorial / ed. By A. I. Glukhov, E. V. Babchenko. — M. : GEOTAR-Media, 2019. — 128 pages with illustrations.
19. Bioorganic Chemistry: workbook to practice : tutorial guide / edited by N. A. Tyukavkina. — Moscow : GEOTAR-Media, 2022. — 160 p.
20. Chemistry: Medical aspects : tutorial guide / T. D. Poprygina, T. N. Ilinova, N. I. Ponomareva. — Moscow : GEOTAR-Media, 2022. — 144 p.
- 21 . Essential Biochemistry for Medical Students with Problem-Solving Exercises : textbook = Базовый курс биохимии для студентов медицинских специальностей, включающий ситуационные задачи : учебник / ed. by A. I. Glukhov, A. E. Gubareva. — Moscow : GEOTAR-Media, 2024. — 584 p. : ill.
22. Biological Chemistry and Oral Cavity Biochemistry: Case Studies and Exercises: Study Guide / edited by A. I. Glukhov. — Moscow: GEOTAR-Media, 2019. — 240 p.
23. Biological Chemistry. Oral Cavity Biochemistry: Textbook / T. P. Vavilova, A. E. Medvedev. — Moscow: GEOTAR-Media, 2023. — 560 p.: ill.

Monitoring and evaluation of learning outcomes

Each module is assessed using a 100-point system. The maximum score is 100. A student is allowed to take the final test if he has a total score in the discipline of 60 points or more.

The results of the modules are added up and the average score is displayed.

Scoring Policy	Modul 1	Modul 2
Classroom work (activity in discussions, during oral questioning, working with a glossary, etc.)	40 points	40 points

Independent work: essay, report	20 points	20 points
Total by module (testing)	40 points	40 points
Total by discipline:	100 points	100 points

Assessment System

The maximum score for each module is 100 points, including:

Independent Student Work (ISW) – 20 points

Current assessment – 40 points

Midterm assessment (module) – 40 points

The results of all modules within the semester are combined and the average score is calculated.

Students must make up missed classes and unsatisfactory grades according to the department's teacher duty schedule.

A module retake is allowed only for a valid reason and must be completed no later than two weeks after the module date.

Admission to Final Assessment

A student is admitted to the final assessment (differentiated pass or exam) if they obtain 60 points or more in the discipline.

Credit System

Under the credit-based education system, a multi-point grading scale using letter grades is applied, allowing instructors to more flexibly evaluate student knowledge.

The final assessment in the form of a pass is based on attendance, current assessment, and midterm (module) assessment.

Final assessment format: Pass / Examination.

Score and Grade Correspondence Scale				
Maximal points				
	unsatisfactory	satisfactory	good	excellent
20	0-11	12-15	16-17	18-20
40	0-23	24-30	31-35	36-40
60	0-35	36-45	46-53	54-60
100	0-59	60-75	76-89	90-100

Score (%)	Letter	GPA	Numeric	Traditional
96–100	A+	4.00	5	Excellent
93–95.99	A	3.75		
90–92.99	A-	3.67		
87–89.99	B+	3.33	4	Good
83–86.99	B	3.00		
80–82.99	B-	2.67		
77–79.99	C+	2.33	3	Satisfactory
73–76.99	C	2.00		
70–72.99	C-	1.67		
67–69.99	D+	1.33	2	Satisfactory
63–66.99	D	1.00		
60–62.99	D-	0.67		
0–59.99	F	0.00	1	Fail

I– assigned to a student who has not fulfilled all course requirements for a valid reason. Within the period установленной by the educational institution, the student has the right to complete all course requirements, after which the grade will be changed.

W – assigned to a student who decides to withdraw from a course no later than after the sixth week of the semester. Applies only to elective courses.

AU– assigned to a student who has attended at least 80% (eighty percent) of classes in an additional course as an auditor (without receiving a grade).

GPA for each discipline is calculated automatically in the AVN information system.

Based on academic performance results, the Grade Point Average (GPA) is calculated, with a maximum value of 4.0. The student’s GPA is determined at the end of each semester and cumulatively upon completion of the entire course of study.

Evaluation criteria:

Criteria for assessing the practical lesson:

- an “**excellent**” grade is given to a student if he has knowledge of the discipline in the full scope of the program and comprehends the discipline sufficiently deeply; independently, in a logical sequence and exhaustively answers all questions, emphasizing the most essential, is able to analyze, compare, classify, generalize, concretize and systematize the studied material, highlight the main thing in it;
- a “**good**” rating: the student has knowledge of the discipline almost in full of the program (there are knowledge gaps only in some sections); independently and partly with leading questions, gives complete answers to the ticket questions; does not always highlight the most significant, but at the same time does not make serious

mistakes in the answers;

- a **“satisfactory”** grade is given in cases where the student has the basic knowledge of the discipline; shows difficulty in answering independently, uses imprecise formulations; in the process of answering, errors are made regarding the substance of the questions;
- an **“unsatisfactory”** grade is given in cases where the student has not mastered the required minimum knowledge of the subject and is unable to answer the questions on the ticket even with additional leading questions from the teacher.

Criteria for assessing the performance of laboratory work

- A **grade of “5”** is given if the student completes the work in full in compliance with the required sequence of experiments and measurements; independently and rationally installs the necessary equipment; conducts all experiments under conditions and modes that ensure correct results and conclusions are obtained; complies with the requirements of labor safety rules; correctly and accurately completes all entries, tables, graphs, and calculations in the report.
- A **“4”** rating is given if the requirements for a “5” rating are met, but two or three shortcomings were made, no more than one minor error and one shortcoming.
- A **rating of “3”** is given if the work is not completed in full, but the volume of the completed part is such that it allows you to obtain correct results and conclusions: if errors were made during the experiment and measurements.
- A **rating of “2”** is given if the work is not completed completely and the volume of the completed part of the work does not allow one to draw correct conclusions: if experiments, measurements, calculations, observations were carried out incorrectly.

Evaluation criteria for the report and presentation

№	Criteria	Assessment	Number of points
1	Structure	<ul style="list-style-type: none"> - the number of slides corresponds to the content and duration of the speech (for a 7-minute speech it is recommended to use no more than 10 slides) - presence of a title slide and a conclusion slide 	till 2 points
2	Visibility	<ul style="list-style-type: none"> - Good quality illustrations, clear images, text is easy to read - means of visualization of information are used (tables, diagrams, graphs, etc. 	till 4 points
3	Design and customization	<ul style="list-style-type: none"> - the design of the slides corresponds to the theme, does not interfere with the perception of the content, the same design template is used for all presentation slides. 	till 2 points
4	Content	<ul style="list-style-type: none"> - the presentation reflects the main stages of the research (problem, goal, hypothesis, progress, conclusions, resources. - contains complete, understandable information on the topic of work - spelling and punctuation literacy 	till 6 points
5	Performance requirement	<ul style="list-style-type: none"> - the speaker is fluent in the content, presents the material clearly and competently 	till 6 points

		<ul style="list-style-type: none"> - the speaker answers questions and comments from the audience freely and correctly - the speaker strictly fits within the framework of the regulations 	
	Maximum score		20 points

Evaluation criteria for notes:

- **the "excellent"** rating is given to the student if the completeness of the use of educational material, the logic of presentation (the presence of schemes, the number of semantic connections between concepts), clarity (the presence of drawings, symbols, etc.; accuracy of execution, readability of the summary, literacy (terminological and spelling);
- **the "good"** rating is given to the student if the use of educational material is not complete, it is not sufficiently logical to present (the presence of schemes, the number of semantic connections between concepts), clarity (the presence of drawings, symbols, etc.; accuracy of execution, readability of the summary, literacy (terminological and spelling), lack of related sentences;
- the "satisfactory"** rating is given to the student if the use of educational material is not complete, it is not sufficiently logical to present (the presence of schemes, the number of semantic connections between concepts), clarity (the presence of drawings, symbols, etc.; accuracy of execution, readability of the summary, literacy (terminological and spelling), lack of independence during compilation can be traced;
- **the "unsatisfactory"** rating is given to the student if the use of educational material is not complete, there are no schemes, the number of semantic connections between concepts, there is no clarity (presence of drawings, symbols, etc.; accuracy of execution, readability of the summary, terminology and spelling errors, lack of independence in drafting were made.

Evaluation criteria for Crossword:

the score **"excellent"** is given to the student if the crossword fits successfully into any figure or image, all the words of the crossword correspond to the topic, the questions are clearly formulated, there are no spelling, grammatical and speech errors;

the grade **"good"** is given to the student if the crossword fits enough into any figure or image, all the words of the crossword correspond to the topic, the questions are clearly formulated, spelling, grammatical and speech errors are present;

- the **"satisfactory"** rating is given to the student if the crossword does not fit into any figure or image, not all words of the crossword correspond to the topic, the questions are not formulated clearly enough, spelling, grammatical and speech errors are present;

- **the "unsatisfactory"** rating is given to the student if the crossword puzzle is not executed or does not fit into any figure or image, most of the words of the

crossword puzzle do not correspond to the topic, the questions are not clearly formulated, spelling, grammatical and speech errors are present.

Evaluation criteria for exam:

- the "**excellent**" rating is given to the student, with the number of correct answers from 90 and above;
- the "**good**" rating is given to the student, with the number of correct answers from 76 to 89;
- the "**satisfactory**" rating is given to the student, with the number of correct answers from 60 to 75;
- the "**unsatisfactory**" rating is given to the student if he gave up to 59 correct answers inclusive.

Academic discipline policy:

- compulsory attendance at classes;
- active participation of the student in practical classes;
- preliminary preparation and completion of homework;
- high-quality and timely completion of tasks under CDS;
- participation in all types of control (current, milestone, final);
- one lateness to classes and/or leaving before their end for any reason is considered as one missed lesson that cannot be restored;
- unacceptable: the use of cell phones during classes, deception and plagiarism, late submission of assignments, failure to comply with chain of command and rules of conduct.

Help: For advice on completing independent work (SIW/SIWT), their delivery and defense, as well as for additional information on the material covered and all other questions that arise regarding the course being taught, please contact the teacher, Sat. at Moskovskaya 172, office №511