Syllabus
Working curriculum of the discipline "Normal genitourinary system"
Educational program: 6B10115 "Medicine"

1.	**General information about the discipline**		
1.1	**Discipline code: NGS** 1208	1.6	**Academic year:** 2025-2026
1.2	**Name of the discipline:** "Normal genitourinary system".	1.7	**Course:** 2
1.3	**Prerequisites:** Molecular Biology and Medical Genetics	1.8	**Semester**: 4
1.4	**Postrequisites:** General pathology, genitourinary system in pathology	1.9	**Number of credits (ECTS):** 3/90
1.5	**Cycle:** BD	1.10	**Component**: UC
2.	**Content of the discipline**		
Formation of fundamental knowledge about the anatomical, physiological and histological features of the genitourinary system, the application of this knowledge in biomedical and clinical sciences, the provision of patient-centered care, observing the principles of ethics and deontology for effective professional practice in healthcare.			
3.	**Form of summative valuation**		
3.1	☑ Testing	3.5	Exchange
3.2	Written	3.6	Essay
3.3	Oral	3.7	Project
3.4	☑ Practical Skills Assessment	3.8	Other (specify)
4.	**Objectives of the discipline**		
Formation of students' knowledge and understanding of the structure and functions of the body of a healthy person and the mechanisms of their regulation. To apply fundamental theoretical knowledge about the structural and functional organization of vital processes at the cellular, tissue and organ levels, the disclosure of the patterns of their development and, in this regard, the possibility of purposeful influence on them for the training of a clinician. Formation of students' knowledge and understanding of the structure and functions of the body of a healthy person and the mechanisms of their regulation.			
5.	**Final Learning Outcomes (LO of the discipline)**		
LO1	Demonstrates knowledge of the structures and general laws of the structure and functioning of cells, tissues, organs of the genitourinary system, their mechanisms of regulation, considered from the standpoint of general physiology and integrative behavioral activity of a person;		
LO2	Demonstrates knowledge of the main metabolic processes occurring in tissues, the mechanisms of their regulation at the cellular level and the possible consequences of their disruption. Knows the basic physiological composition and functions of the genitourinary system in the normal human body.		
LO3	Demonstrates his knowledge and skills in conducting morphophysiological research, is able to analyze literary research and scientific articles in independent study of the discipline, is able to work in a group and apply knowledge and understanding in practice.		
5.1	**LO of discipline**	**LO of an educational program that are associated with the discipline's learning rating**	
	LO 1	LO 1 –Applies fundamental knowledge of biomedical, clinical, epidemiological, and social-behavioral sciences to practice.	
	LO 2	LO 2 -Provides patient-centered care in biomedical, clinical, epidemiological sciences aimed at diagnosis, treatment and prevention of the most common diseases.	
	LO 3	LO 4 – Communicates effectively with patients, their families and health care providers in an ethical, deontological and inclusive manner, resulting in effective information sharing and collaboration.	
6.	**Detailed information about the discipline**		

6.1	The venue of the Department of Morphophysiology (normal anatomy) is 1 Al-Farabi Square, the main academic building, ground floor; internal phone – 40-82-22, 40-82-26 (263), e-mail: anatomia.2012@mail.ru. E-mail: www.skma.edu.. kz. Topographic Anatomy and Histology: Shymkent, 3 Al-Farabi Sq., Academic Building No 2, 4th floor; auditoriums – No404 a, b; No 406; No408; No409, No411a, b. e-mail: Patan.gisto@mail.ru Morphophysiology (normal physiology): Shymkent, Al-Farabi Square, academic building No 2, 4-5 floors; Tel. 40-82-26 (422,423);

6.2	Number of hours	Lecture	Practise. less.	Lab. class	SIWT	SIW
		6	24	-	9	42/9

6.3 Course Study Plan

		1	2	3	4	5	6	7		
Anatomy	Lecture	1			1				**2**	1,0
	Practise less.	2	2		2		2		**8**	
	SIW			1				**2 MT2**	**3**	
Physiology	Lecture		1			1			**2**	1.0
	Practise less.	2		2		2		2	**8**	
	SIW		1		2 MT1				**3**	
Histology	Lecture			1			1		**2**	1,0
	Practise less.		2	2		2	2		**8**	
	SIW	1				1	1		**3**	

7.	**Instructor Details**		
№	Full name Degrees and position	E-mail address	Scientific interests, etc. Note
1.	Tanabayev Baimakhan Dilbarkhanovich	Head of the Department, Candidate of Medical Sciences, Acting Professor	b.tanabayev@mail.ru
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5.	Satybaldieva Nazgul Mutalkhanovna	Master, Senior Lecturer	n_a_z_i_92@mail.ru
7.	Sisabekov Kasymkhan Ermekbayevich	Professor, Doctor of Medical Sciences	sisabekov47@mail.ru
8.	Zhumashev Seydaly Nurakhovich	Acting Professor, Doctor of Medical Sciences	sult_med@mail.ru
9.	Toimbetova Karlygash Abibullaevna	Senior Lecturer	tojmbetova71@mail.ru
11.	Sabit Akailym Yerlanovna	Master, Senior Lecturer	sae.260996@mail.ru
12.	Izbasarova Madina Seisenalivna	Master, Senior Lecturer	madiko91.91@mail.ru

8. Thematic plan

Week/	**Topic Title**	**Summary**	**LO of the**	**Numb**	**Methods/**	**Form/**

day			disciplins	er of hours	Learning Technologies	Assessment methods
1	**Physiology.** Lecture No1 Physiology of the excretory system.	Excretory functions of the kidneys, lungs, skin. Mechanism of urination. Filtration. Reabsorption. Secretion.	LO1 LO2 LO3	1	Introductory	Feedback (control questions)
2	**Anatomy** Lecture 1 Morphofunctional characteristics of the organs of the urinary system.	Kidneys, structure, topography, kidney membranes. Ureter. Bladder. Urethra.	LO1 LO2 LO3	1	Introductory	Feedback (control questions)
3	**Histology** Lecture No1 Histology of the urinary system.	General morphofunctional characteristics. Kidneys, structure of the cortex and medulla. Nephron. Urinary tract. YUGA apparatus.	LO1 LO2 LO3	1	Overview	Answers to control questions.
4	**Anatomy** Lecture 2 Morphofunctional characteristics of male and female genital organs.	Testicles. Vas deferens. Seminal vesicles. Spermatic cord and testicular membranes. Penis. Male urethra. Prostate. Ovary. Fallopian tubes. Womb. Vagina. External genitalia.	LO1 LO2 LO3	1	Introductory	Feedback (control questions)
5	**Histology** Lecture No2 Histology of the reproductive system.	General morphofunctional characteristics of the reproductive system. Testes, structure and functional significance. Ovaries, structure and functional significance.	LO1 LO2 LO3	1	Overview	Answers to control questions.
6	**Physiology.** Lecture No2. Human reproductive functions.	Functions of female and male genital organs.	LO1 LO2 LO3	1	Overview	Feedback (control questions)
				6		
1	**Anatomy** Practical lesson 1. Kidney, ureter: structure, topography and functions. Structural and functional unit of the kidney.	Structure and topography of the kidney. Fixation of the kidneys. Renal membranes. Renal pelvis, cups and ureter. Fornical apparatus of the renal calyxes. Structure of the nephron. Blood supply, innervation, venous and lymphatic outflow of the kidneys.	LO1 LO2	2	Work with anatomical specimens, torso, models, tables, tablets, posters, on the interactive panel "Pirogov" and/or solving test tasks and situational tasks.	Checklist of oral survey; Checklist for solving situational problems; Checklist for completing test tasks

2	**Physiology.** Practical lesson No1 Excretory functions of the kidneys. Urinary processes.	Excretory functions of the kidneys. Structure and functions of the nephron. Basic processes of urinary formation. Composition of final urine.	LO1 LO3	2	discussion of the main issues of the topic, performing test tasks, solving situational problems.	Checklist for evaluating the practical lesson.
3	**Histology.** Practical lesson No1 Organs of the urinary system	Morphofunctional characteristics. Structure of the kidney.Nephron.Histophysiology of the nephron. Features of blood supply to the kidney. Urinary tract.	LO1 LO2	2	checklist of histopreparations, micrographs	Checklist for evaluating the practical lesson.
4	**Anatomy** Practical lesson 2. Bladder.Urethra.	Bladder, urethra: structure, topography, functions.	LO1 LO2	2	Work with anatomical specimens, torso, models, tables, tablets, posters, on the interactive panel "Pirogov" and/or solving test tasks and situational tasks.	Checklist of oral questioning; Checklist for solving situational problems; Checklist for completing test tasks
5	**Physiology.** Practical lesson No2. Regulation of urinary processes.	Nervous and humoral regulation of urinary processes.	LO1 LO2	2	discussion of the main issues of the topic, performing test tasks, solving situational problems.	Checklist for evaluating the practical lesson.
6	**Histology** Practical Lesson No2 Organs of the male reproductive system	Morphofunctional characteristics of the reproductive system. Testicular structure and spermatogenesis. Vas-deferens. Accessory glands of the male reproductive system.	LO1 LO2	2	Work in small groups, checklist of histopreparations, micrographs	Checklist for evaluating the practical lesson.
7	**Anatomy** Practical lesson 3. Male genitals: structure, functions. Muscles and fascia of the male perineum.	Testicles. Vas deferens. Seminal vesicles. Spermatic cord and testicular membranes. Penis. Male urethra. Bulbourethral glands. Prostate. Perineum. Superficial and deep muscles of the genitourinary and	LO1 LO2	2	work in small groups with anatomical specimens, torso, models, tables, tablets, posters, on the interactive panel "Pirogov"	Checklist of oral questioning; Checklist for solving situational problems;

		pelvic diaphragm. Fascia of the perineum.			and/or solving test tasks and situational tasks.	Checklist for completing test tasks
8	**Physiology.** Practical lesson No3 Thermoregulation . Sweating.	The innervation of the sweat glands and the regulation of their activity.	LO1 LO2	2	discussion of the main issues of the topic, performing test tasks, solving situational problems.	Checklist for evaluating the practical lesson.
9	**Histology** Practical Lesson No3 Organs of the female reproductive system1.	Embryonic sources and the course of development. Structure of the ovaries, ovogenesis and development of the corpus luteum.	LO1 LO2	2	Work in small groups, checklist of histographic preparations, micrographs	Checklist for evaluating the practical lesson.
10	Anatomy Practical lesson 4. Female Genital Organs: Structure, Topography, Functions. Muscles and fascia of the female perineum.	Ovary. Fallopian tubes. Womb. Vagina. External genitalia. Perineum. Superficial and deep muscles of the genitourinary and pelvic diaphragm. Fascia of the perineum.	LO1 LO2	2	work in small groups with anatomical specimens, torso, models, tables, tablets, posters, on the interactive panel "Pirogov" and/or solving test tasks and situational tasks.	Checklist of oral questioning; Checklist for solving situational problems; Checklist for completing test tasks
11	**Physiology.** Practical lesson No4. Functions of the female and male reproductive systems.	Functions of the external and internal female genital organs. Phases of the sexual cycle. Pregnancy and fetal-maternal relations. Lactation. Regulation.Functions of the testes, prostate, bulbourethral glands and seminal vesicles.	LO1 LO3	2	discussion of the main issues of the topic, performing test tasks, solving situational problems.	Checklist for evaluating the practical lesson.
12	**Histology** Practical lesson No4 Organs of the female reproductive system 2.	Embryonic sources and the course of development. Structure of the oviduct and uterus, vagina. The mammary gland in various functional states.	LO1 LO2	2	Work in small groups, checklist of histographic preparations, micrographs	Checklist for evaluating the practical lesson.
				24		
1	**Anatomy of** SROP/SLO1 Malformations of the genitourinary system. Task of the SRO	Malformations of the kidneys, bladder, ureter and urethra. Malformations of the penis and testicle. Malformations of the uterus and vagina.	LO1 LO2 LO3	1/7	Preparation and protection of SROs in the form of: - *Description of the anatomical specimen on the*	Checklist

	1. Describe the main causes and types of malformations of the genitourinary system. 2. Give an example of a clinical case of one of the defects and explain its pathogenesis. 3. Indicate the methods of diagnosing this condition.				*anatomical table "Pirogov"* *- presentation*	
2	**Physiology.** PSA/SRO 1. Boundary control - 1.	Consolidation of the material covered on the topics of the lecture, practical lesson, PSROP and SRO.	LO1 LO2 LO3	2/7	Written - solving integrated situational problems	Checklist for the implementation of integrated situational tasks
3	**Physiology.** SIW 2. Non-excretory functions of the kidneys and skin. The process of fertilization of the egg. Implantation. Pregnancy. Task of the SIW 1. To analyze the metabolic function of the kidneys. 2. To analyze the function of the kidneys in erythropoiesis. 3. To analyze the role of the kidneys in maintaining blood pressure.	Endocrine, hematopoietic, metabolic and other functions of the kidneys.Structural and functional features of the sebaceous and sweat glands. Composition of sebum and sweat. Features of fertilization of the egg. Movement of the zygote through the fallopian tubes. Implantation. Periods of pregnancy.	LO1 LO2 LO3	1/7	Preparation and defense of presentations.	Checklist for SIW assessment.
4	**Histology** SIW 1 Endocrine apparatus of the kidney. Task of the SIW 1. To study the components of the juxtaglomerular apparatus. 2.	Components of the juxtaglomerular apparatus. Localization of interstitial cells, juxtavascular and dense spot cells.	LO1 LO2 LO3	1/5	Work in small groups, presentation defense, glossary.	Checklist for SIW assessment

	Determine the localization of interstitial cells, juxtavascular and dense spot cells.					
5	**Histology** SIW 2 Sources and course of embryonic development of the male reproductive system. Task of the SIW 1. To study the sources and course of embryonic development of the organs of the reproductive system.	Sources and course of embryonic development of the organs of the reproductive system.	LO1 LO2 LO3	1/5	Work in small groups, presentation defense, glossary.	Checklist for SIW assessment
6	**Histology** SIW3 Sources and course of embryonic development of the female reproductive system. Task of the SIW 1. Explain the factors of sexual differentiation. 2. Name age-related changes in the organs of the reproductive system.	Factors of sexual differentiation. Age-related changes in the organs of the reproductive system.	LO1 LO2 LO3	1/4	Work in small groups, presentation defense, glossary.	Checklist for SIW assessment
7	**Anatomy.** PSA/SRO 3 Boundary control - II.	Consolidation of the material covered on the topics of the lecture, practical lesson, SIWT and SIW.	LO1 LO2 LO3	2/7	Written - solving integrated situational problems	Checklist for the implementation of integrated situational tasks
	Preparation and conduct of interim certification			9		

9.	**Teaching and assessment methods**	
9.1	Lecture	Introductory, overview lecture Form of control: Feedback (control questions)
9.2	Practical exercises	work in small groups with anatomical specimens, with a skeleton, skull, dummies, tablets, posters, on the interactive anatomical table "Pirogov" and/or solving test and situational (clinical) tasks, discussing the main issues of the topic, filling out a checklist of histological specimens and microphotographs.

		Form of control: Oral questioning with demonstration of anatomical structures on the torso, tablets, posters, interactive anatomical table "Pirogov" and/or solving test tasks and situational (clinical) tasks, checklist for evaluating the practical lesson.
9.3	SIW/SIWT	Consultation on the most difficult issues in the implementation of SRO, work with educational literature, preparation of a presentation, sketching of the scheme of the course of nerves, arterial, venous and lymphatic vessels; preparation of a glossary, conducting midterm control, Form of control:Evaluation sheets for certain forms of the completed task
9.4	Boundary control	written – solving integrated situational problems Form of control: assessment of the implementation of integrated situational tasks.

10. Assessment criteria

10.1 Criteria for assessing the results of learning in the discipline

№ LO	Learning outcomes	Unsatisfactory	Satisfactory	Good	Excellent
LO1	Demonstrates knowledge of the structures and general laws of the structure and functioning of cells, tissues, organs of the genitourinary system, their mechanisms of regulation, considered from the standpoint of general physiology and integrative behavioral activity of a person;	The student could not demonstrate knowledge of the general laws of the structure and functioning of cells, tissues and organs of the genitourinary system, their regulatory mechanisms and their functions, considered from the point of view of general physiology and integrative behavior of a person;	The student makes gross mistakes when demonstrating knowledge about the general laws of the structure and functioning of cells, tissues and organs of the genitourinary system, as well as about their regulatory mechanisms, considered from the standpoint of general physiology and integrative behavior of a person;	The student demonstrates knowledge of the general laws of the structure and functioning of cells, tissues and organs of the genitourinary system, as well as the mechanisms of their regulation, considered from the standpoint of general physiology and integrative behavior of a person;	The student demonstrates deep knowledge of the general laws of the structure and functioning of cells, tissues and organs of the genitourinary system, as well as the mechanisms of their regulation, considered from the standpoint of general physiology and integrative behavior of a person;
LO2	Demonstrates knowledge of the main metabolic processes occurring in tissues, the mechanisms of their regulation at the cellular level and the possible consequences of their disruption. Knows the basic physiological composition and functions of the	The student was unable to demonstrate knowledge of the main metabolic processes occurring in tissues, the mechanisms of their regulation at the cellular level and the possible consequences of their disruption. Does not know the basic physiological	The student was not able to demonstrate knowledge of the basic metabolic processes occurring in tissues, the mechanisms of their regulation at the cellular level and the possible consequences of their disruption. Under normal conditions, the child	The student makes mistakes in demonstrating knowledge about the basic metabolic processes occurring in tissues, the mechanisms of their regulation at the cellular level and the	The student demonstrates a high level of knowledge of the basic metabolic processes occurring in tissues, the mechanisms of their regulation at the cellular level and the possible consequences of their disruption. He/she has a high level of knowledge

	genitourinary system in the normal human body.	composition and function of the organs of the genitourinary system in the normal state.	makes gross mistakes in the description of the basic physiological composition and functions of the organs of the genitourinary system;	possible consequences of their disruption. He makes mistakes in knowing the basic physiological composition and function of the organs of the genitourinary system in the norm.	about the basic physiological composition and functions of the organs of the genitourinary system in a normal manner.
LO3	Demonstrates his knowledge and skills in conducting morphophysiological research, is able to analyze literary research and scientific articles in independent study of the discipline, is able to work in a group and apply knowledge and understanding in practice.	The student was able to demonstrate knowledge and skills in conducting morphophysiological research, in independent study of the subject, in the ability to conduct literary research and analyze scientific articles, in working in a group and applying knowledge and understanding in practice, in knowledge of the material.	The student makes gross mistakes in demonstrating his knowledge and skills in conducting morphophysiological research, in knowing the possibilities of literary research and analysis of scientific articles in independent study of the subject, in the application of knowledge and understanding in group work and in practice, in mastering the material;	The student demonstrates average abilities to demonstrate their knowledge and skills in conducting morphophysiological research, to study the subject independently, to conduct literary research and analyze scientific articles, to work in a group and apply knowledge and skills in practice, to assimilate the material;	The student demonstrates complete knowledge when demonstrating his knowledge and skills when conducting morphophysiological research, when studying the subject independently, when conducting literary research and analyzing scientific articles, when working in a group, as well as when applying knowledge and understanding in practice.

10.2	**Assessment methods and criteria**
Checklist for practical lesson: Students are evaluated according to individual assessment criteria depending on the form/method of assessment used during the lesson (oral questioning, solving test tasks, solving situational problems), their average score is set in the journal.	
Checklist for SIWT/SIW: Evaluation Sheets for Certain Forms of the Completed Task	
Checklist for intermediate certification: Assessment of practical skills. Testing	

Checklist for assessing the oral answer

Evaluation	Point	Evaluation criteria
Excellent	95-100	Complete and accurate reproduction of knowledge, deep understanding of interconnections, confident use of terminology, integration with related disciplines and clinics, without errors.
	90-94	Almost complete reproduction, some minor inaccuracies, good application of knowledge, logical speech, not critical shortcomings.
Good	85-89	Knowledge in general is accurate, 1-2 factual inaccuracies, logical thinking, confident, but not in-depth answers.
	80-84	The material has been mastered, but the explanations are superficial, mistakes are made, difficulties with integration are made.
	75-79	Knowledge is at a satisfactory level, there are systemic, but not critical errors, support is required.
	70-74	Fragmentary assimilation, missed key points, logic is broken, low activity.
Satisfactorily	65-69	Fragmentary assimilation, missed key points, logic is broken, low activity.
	60-64	Fragmentary or distorted knowledge, is not able to explain connections, practical skills are not formed.
	50-59	Gross, systematic mistakes, poor understanding, incoherent answers, lack of independence.
Unsatisfactorily	0-49	Lack of basic knowledge, disorientation in all tasks, gross mistakes, refusal to participate.

Checklist for solving situational (clinical) problems in anatomy

Evaluation	Point	Evaluation criteria
Excellent	95-100	The student fully and accurately determined the clinical situation, applied specialized knowledge, and logically justified the decision. There are no mistakes.
	90-94	Almost complete understanding of the situation, logical explanation, minor inaccuracies, the general clinical picture is recognized.
Good	85-89	The situation is recognized, there are some inaccuracies in the argumentation or choice of solution, but the general direction is correct.
	80-84	The analysis was carried out with minor logical errors, but the main elements were taken into account.
	75-79	There are errors in logic or interpretation, but an understanding of key concepts has been demonstrated.
	70-74	Partially correct decision, there are gaps in the analysis, the decision is not sufficiently substantiated.
Satisfactorily	65-69	The situation is partially understood, there are significant gaps in logic, and the solution is fragmentary.
	60-64	There are significant logical errors, insufficient application of knowledge, and revision is required.
	50-59	The decision is given, but without justification, the clinical essence is not disclosed.
Unsatisfactoril y	0-49	The situation is not recognized, the solution is absent or incorrect. There is no logic and application of knowledge.

Checklist of a practical lesson in physiology

Checklist for a practical lesson in physiology		
№		Level

	Evaluation criteria	**Excellent**	**Good**	**Satisfactorily**	**Unsatisfactorily**
1	Performs the tasks of the initial testing	9-10	7-8,9	5-6,9	0-4,9
2	Practical work and discussion of research results	9-10	7-8,9	5-6,9	0-4,9
3	Explains the observed facts and phenomena in the performance of practical work, their cause-and-effect relationships	9-10	7-8,9	5-6,9	0-4,9
4	Solving and discussing situational tasks	9-10	7-8,9	5-6,9	0-4,9
5	Interpretation of the results of clin-laboratory studies	9-10	7-8,9	5-6,9	0-4,9
6	Teamwork skills	9-10	7-8,9	5-6,9	0-4,9
7	Discussion of the main issues of the topic	9-10	7-8,9	5-6,9	0-4,9
8	Determination of the mechanisms of physiological processes	9-10	7-8,9	5-6,9	0-4,9
9	Personal judgments when discussing a topic	9-10	7-8,9	5-6,9	0-4,9
10	Final Testing	9-10	7-8,9	5-6,9	0-4,9
Final grade:		100	70	50	0

The maximum score is 100. Total points _____Teacher's signature_____

Checklist for solving situational problems in physiology

Evaluation	Point	Evaluation criteria
Excellent	Excellent corresponds to the points 95-100 90-94	- solved situational tasks in a certain time; - gave full answers to all questions
Good	Good corresponds to the points 85-89 80-84 75-79 70-74	- solved situational tasks in a certain time; - gave full answers to all questions; - made non-fundamental mistakes when solving situational problems
Satisfactorily	Satisfactorily corresponds to the points 65-69 60-64 50-54	- solved situational tasks in a certain time; - gave incomplete answers to questions; - made fundamental mistakes when solving situational problems
Unsatisfactory	Unsatisfactorily	- made gross mistakes when solving situational problems

	corresponds to the points 25-49	
	Unsatisfactorily corresponds to the points 0-24	- incorrectly solved situational tasks or did not solve them at all;

Checklist for assessing a practical lesson in histology

Evaluation criteria	Level			
	Excellent	**Good**	**Satisfactorily**	**Unatisfactorily**
Answers the questions of the individual test according to the **"Quizizz" program**	40	28	20	0
Answers questions of oral questioning (small groups)	20	14	10	0
Fills in tables	20	14	10	0
Performs situational tasks	20	14	10	0
Total:	100	70	50	0

Checklist for practical work, discussion of research results		
Evaluation	Point	Evaluation criteria
Excellent	95-100	The work is done in full, the methodology is followed, the results are accurate, the explanation is logical, and active participation in the discussion.
	90-94	The work is almost error-free, minor deviations do not affect the overall result, confident discussion.
Good	85-89	The main part of the work has been done, the discussion is adequate, but there are minor shortcomings in the methodology or explanation.
	80-84	The work is done with some mistakes, the discussion is incomplete, but the topic is understood.
	75-79	The results are partially correct, there are gaps in interpretation, and participation in the discussion is limited.
	70-74	There are significant inaccuracies, the logic of explanation is violated, and participation is passive.
Satisfactorily	65-69	The work is partially done, the methodology is violated, the explanation is weak.
	60-64	The results are inconclusive, the help of a teacher is required, and activity is low.
	50-59	The work is formally done, the understanding of the topic is superficial.
Unsatisfactorily	0-49	The work is not completed or completely incorrect, there is no participation in the discussion.

Checklist for SIW/SIWT:

№	**Criterion**	**Level, score in points**

		Excellent 90-100	**Good** 70-89	**Satisfactorily** 50-69	**Unsatisfactorily** 0-49
1.	The presence of a title slide with a title, a presentation plan, a sufficient number of slides, a list of references and Internet sources.	9-10	7-8,9	5-6,9	0-4,9
2.	Compliance of the content of the presentation with the topic and tasks.	9-10	7-8,9	5-6,9	0-4,9
3.	Arrange slides in a logical sequence.	9-10	7-8,9	5-6,9	0-4,9
4.	Style of presentation of the material (conciseness, clear formulation, structure).	9-10	7-8,9	5-6,9	0-4,9
5.	Use of modern sources of information in sufficient quantities.	9-10	7-8,9	5-6,9	0-4,9
6.	Ability to generalize the material, clear and clear conclusions.	9-10	7-8,9	5-6,9	0-4,9
7.	The level of orientation in the presentation material.	9-10	7-8,9	5-6,9	0-4,9
8.	Ability to report clearly, competently, consistently.	9-10	7-8,9	5-6,9	0-4,9
9.	The ability to defend one's position and the ability to respond constructively to criticism.	9-10	7-8,9	5-6,9	0-4,9
10	The quality of the design of the slides (colorfulness, clarity, etc.).	9-10	7-8,9	5-6,9	0-4,9

The maximum score is 100. Total points _____Teacher's signature_____

Testing according to a multi-point system of knowledge assessment.

Checklist for SIW: Evaluation Sheets for Certain Forms of the Completed Task

Checklist for the assessment of the preparation of the protection of histological slides and micrographs

Evaluation	Point	Evaluation criteria
Excellent	95-100	The slide and micrograph are flawless, the structures are precisely defined, the explanation is deep, logical and independent.
	90-94	Minor technical flaws, good understanding of structures and functions, competent use of terminology.
Good	85-89	The work is generally correct, but with 1-2 errors in structure or explanation, the terminology is used with slight errors.
	80-84	The structures are partially defined, the explanation is superficial, the micrograph is drawn up with shortcomings.
	75-79	There are errors in the recognition of structures and in explanation, the argumentation is weak.
	70-74	The student partially coped with the task, the teacher's help and revision of the work are required.
Satisfactorily	65-69	The work is done poorly, functions and structures are difficult to explain, errors are observed.
	60-64	The task was completed with gross mistakes, the terms are confused, and understanding is limited.

	50-59	The slide and explanation are extremely weak, there is practically no logic and independence.
Unsatisfactorily	0-49	The task is not completed or completed incorrectly, there is no knowledge, understanding and interest in the topic.

Checklist for the assessment of SIW in histology

№	Evaluation criteria	Level			
		Excellent	**Good**	**Satisfactorily**	**Unsatisfactorily**
1	Assessment of the protection of histological slides	40	28	20	0
2	Electron Microphotography Security Assessment	40	28	20	0
3	Glossary Evaluation	20	14	10	0
	Total:	100	70	50	0

Evaluation sheet of a written survey for a boundary office

(Answers for each component are evaluated separately)

Evaluation	Point	Evaluation criteria
Excellent	95-100	All issues are fully disclosed, logically, without errors; precise anatomical and physiological terminology is used.
	90-94	Most of the answers are complete and correct, minor inaccuracies do not affect the overall meaning, the structure of the answer is preserved.
Good	85-89	The answers are generally correct, but there are 1-2 factual or terminological errors, the logic is mostly preserved.
	80-84	There are superficial explanations and 2-3 mistakes, the terms are not always used accurately.
	75-79	The answers are partially revealed, there are logical gaps and difficulties in the use of medical concepts.
	70-74	Significant errors in 2-3 questions, incomplete explanations, the sequence of thought is broken.
Satisfactorily	65-69	Some of the information is reproduced correctly, but there are many templates, weak argumentation, 3-4 mistakes.
	60-64	The knowledge is fragmentary, key concepts are not disclosed, 4 or more mistakes, everyday words are used.
	50-59	The answers are superficial, there are many gross mistakes, there is no connection between the questions, the terminology is not used.
Unsatisfactorily	0-49	Most of the answers are incorrect or missing, factual and logical errors, the work does not reflect knowledge.

Multi-point system for assessing knowledge

Grade by letter system	Digital Equivalent of Points	Percentage	Assessment according to the traditional system
And	4,0	95-100	Excellent
And-	3,67	90-94	
Q+	3,33	85-89	Good
In	3,0	80-84	

In-	2,67	75-79	
C +	2,33	70-74	
With	2,0	65-69	Satisfactorily
With-	1,67	60-64	
D+	1,33	55-59	
D-	1,0	50-54	
FX	0,5	25-49	Unsatisfactory
F	0	0-24	

11. Learning Resources

Electronic resources	1. SKMA Electronic Library - https://e-lib.skma.edu.kz/genres 2. Republican Interuniversity Electronic Library (RMES) – http://rmebrk.kz/ 3. Digital Library "Aknurpress" -https://www.aknurpress.kz/ 4. Electronic library "Epigraph" - http://www.elib.kz/ 5. Epigraph - portal of multimedia textbooks https://mbook.kz/ru/index/https://mbook.kz/ru/index/ 6. **EBS IPR SMARThttps://www.iprbookshop.ru/auth** 7. The information and legal system "Zan" - https://zan.kz/ru 8. Medline UltimateEBSCO - https://research.ebsco.com/ 9. eBook Medical CollectionEBSCO - https://research.ebsco.com/ 10. Scopus - https://www.scopus.com/
E-Textbooks	1. Bilich, G. L. Human Anatomy. Atlas. In 3 vols. T.1. Musculoskeletal system. Osteology. Syndesmology. Myology [Elektronnyi resurs] : uchebnik - M. : GEOTAR - Media, 2013. 2. Bilich, G. L. Human Anatomy. Atlas. In 3 vols. T. 2 [Elektronnyi resurs] : M. : GEOTAR - Media, 2013. 3. Bilich, G. L. Human Anatomy. Atlas. B. 3 т. T. 3 [Elektronnyi resurs] : uchebnik M. : GEOTAR - Media, 2013. 4. Human anatomy. In 2 vols. Vol. 1 [Elektronnyi resurs] : uchebnik M. : GEOTAR - Media, 2013. 5. Human anatomy. In 2 vols. T. 2 [Elektronnyi resurs] : uchebnik - M. : GEOTAR - Media, 2013. 6. Histology, embryology, cytology [Elektronnyi resurs] : uchebnik / pod red. Y. I. Afanasyev. -Electron. textual dan. (41.1Mb). - Moscow: GEOTAR - Media, 2016. - 800 p. 7. Histology. Complex tests: answers and explanations [Elektronnyi resurs] : uchebnoe posobie [Complex tests: answers and explanations] : textbook / ed. by S. L. Kuznetsov. - Electron. textual dan. (41.1Mb). - Moscow: GEOTAR - Media, 2014. - 288 p. 8. Histology [Elektronnyi resurs] : uchebnoe posobie [Histology] : textbook / S. Yu. - Electron. textual dan. (39.6Mb). - Moscow: GEOTAR - Media, 2014. - 184 p. 9. Histology. 1 – bólim [Elektronnyi resurs] :okulyq. -Electron. textual dan. (13.1 Mb). - [B. m. : b. i.]. -el. wholesale. CD-ROM. 10. Histology. Atlas for practical classes [Elektronnyi resurs] : uchebnoe posobie / N. V. Boychuk [i dr.]. - Elektron. tekstovye dan. (131 MB). - Moscow: Publishing group "GEOTAR-Media", 2010. - 160 p. e-mail. wholesale. CD-ROM.1. Shandaulov A.Kh. Zhalpy fiziologiya negizderi [Healthy Physiology] https://mbook.kz/ru/index_brief/374/ 11. Normal Physiology [Elektronnyi resurs] : uchebnik [Normal physiology] : textbook / edited by B. I. Tkachenko. - 3rd ed., ispr. i dop. - Electron.tekstovye dan. (53.1Mb). - M. : GEOTAR - Media, 2017. -el. Opt.disk 12. Fundamentals of General Physiology: Textbook / A.Kh. Shandaulov.– Almaty: Evero, 2020.– 240 p.: https://elib.kz/ru/search/read_book/91/

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5. Human anatomy. In 3 vols. Vol. 1. Musculoskeletal System: An Illustrated Textbook / Ed. by L. L. Kolesnikov; M-vo obrazovaniya i nauki RF.. - Moscow: GEOTAR - Media, 2014. - 320 p
6. Sinelnikov R. D. Atlas of human anatomy. In 4 vols. Vol. 1. Doctrine of bones, bone joints and muscles. allowance. - 7th ed., rev. - Moscow: Novaya volna : Izdatel Umerenkov, 2012.
7. Sinelnikov R. D. Atlas of human anatomy. In 4 vols. Vol. 2. Doctrine of the Viscera and Endocrine Glands. allowance. - 7th ed., rev. - Moscow: New Wave: Publisher Umerenkov, 2012.
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9. Sinelnikov R. D. Atlas of human anatomy. In 4 vols. Vol. 4. Doctrine of the nervous system and sensory organs. allowance. - 7th ed., rev. – Moscow: Novaya volna: Izdatel Umerenkov, 2012.

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Further reading:

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12. Discipline Policy

Requirements for students:

- not to be late for classes;
- not to miss classes without good reason;
- have anatomical gloves, tweezers and scalpel;
- to be active during practical classes;
- be able to work in a team;
- to perform and submit SIW in a timely manner, according to the schedule;
- not to engage in extraneous affairs during classes;
- be tolerant, open and friendly to fellow students and teachers;
- observe ethical standards of behavior when working with anatomical specimens and organs of the human body;
- takes care of the property of the department;
- to work out missed classes in a timely manner for valid reasons;
- observe safety precautions in the classroom.

13. During lectures / practical classes / SIWT, students are prohibited from:

1. use mobile devices / gadgets;
2. Leave the classroom (leave the workplace at the clinical/production base) without the permission of the **teacher.**

Dress Code Requirements

The student is obliged to:

1. Have a clean, ironed medical gown, cap/cap;

2. Have a neat hairstyle, short-cut nails; (for girls: bright makeup and bright nail polish are not allowed).

Penalties:

1. In case of a single violation of the module policy, the student receives an oral warning from the teacher.
2. In case of repeated violations of the module policy, the student provides an explanatory note addressed to the head of the department.
3. In case of systematic violation of the discipline policy, the head of the department submits a corresponding report to the dean's office.

- A student who did not appear at the midterm control without a valid reason and received an unsatisfactory grade for one of the types of controls (MT1, MT2, MTav) is not allowed to take the exam in the discipline; A student who did not appear at the MT for a valid reason, immediately after starting classes, with the permission of the dean's office, receives a work sheet.
- For 1 missed lecture, for an unjustified reason, the staff score is 1.0 points and is deducted from the grades of the midterm control.
- For 1 absence of the SIWT, for an unjustified reason, the penalty point is 2.0 points and is deducted from the SIWgrades
- Incentive points are taken into account according to the policy of the department. Incentive points are added to the assessment of the midterm control. For active participation in the work of the Council of People's Commissars and seminars in each discipline, the student is awarded an incentive point from 5 to 10.

If students do not score 50% of the current rating (i.e. 30 points), then they are not allowed to take the final control (exam).

Requirements for students, attendance, behavior, grading policies, penalties, incentives, etc.

Students must:

● comply with medical ethics and deontology;
● Do not smoke in the academy;
● keep the department clean;
● Do not damage furniture in classrooms;
● take care of textbooks;
● observe the appearance of a student of a medical university;
● comply with safety rules;
● wear masks during the flu epidemic;
● not to miss classes without a valid reason;
● work out classes missed for a valid reason in a timely manner, but only with the admission of the dean's office and at a time determined by the teacher;
● not to be late for classes;
● have the necessary documentation in the classroom: a syllabus, methodological recommendations for classes, lectures, a notebook and a textbook;
● conscientiously prepare for classes;
● be active during classes;
● Do not engage in extraneous activities during classes: do not talk, do not smoke, do not chew gum, do not eat, do not use the phone, do not listen to music, do not read newspapers and magazines, do not prepare for classes in another discipline;
● maintain silence and order during breaks;
● timely perform and submit SIW(in electronic form) according to the schedule; with checking written works for plagiarism.

Penalties for failure to perform sections of work:

● in case of missing lectures without a valid reason, the score of the midterm control is reduced - 1 point for each missed lecture;
● if the SIWT is missed without a valid reason, the grade for the SIW is reduced - 2 points for each missed lesson;
● in case of late submission of the SIW without a valid reason (later than the specified week), the SIW is not accepted;
● In case of a single violation of the discipline policy, the student is given a warning;
● In case of systematic violation of the discipline policy, information about the student's behavior is transferred to the dean's office of the faculty;

Criteria for non-admission to the final control

● **Students** who received an unsatisfactory grade for one of the types of controls (midterm control 1, midterm control 2, average assessment of the current control) are not allowed to the final control in the discipline.

13.	**Academic policy based on the moral and ethical values of the academy**
	www.ukma.kzRegulations and Rules of SKMA. Academic Policy.
	Clause 4 Student's Code of Honor
	P.10. Organization of the educational process
	P.12. Grading policy

Final control - students who have fully mastered the discipline program and scored an admission rating are allowed to take the exam.

The final grade is calculated automatically based on the average assessment of the current control, the average assessment of the midterm controls and the assessment of the final control:

Tolerance Rating (60%) = Average Score for Mid-Term Controls (20%) + Average Score for Current Controls (40%)

Average score of mid-range controls = MT1 + MT2/ 2

The average assessment of the current control = the arithmetic mean of the sum of the current assessments, taking into account the average score for the SRO and penalty points.

Final grade (100%) = RQav x 0.2 + TCrx 0.4 + IC x 0.4

Final Score (100%)= Clearance Rating (60%) + Final Inspection (40%)

Example of calculating the final grade of a student:

Penalty points:

For example, a student missed 2 lectures = 1.0 x 2 = 2.0 points

For missing 1 PSOP = 2.0 points

RC 1 – 80 points

RC 2 – 90 points

$RCavg = \frac{(80-2)+90}{2} = 84$ points

Arithmetic average assessment of current control (practice and laboratory classes) – 80 points

SIW1 – 75 points

SIW2 – 85 points

SIW... – the number of SIW

$\text{Average SIWscore} = \frac{75 + 85 + N...}{2 + N\ldots} = 80$ points

Average current score, taking into account SIW and penalty points:

$CCav^* = CCav + \frac{SIWav}{2} - SIW = \frac{80 + (80 - 2.0)}{2} = \frac{158}{2} = 79.0$

Tolerance rating (60%)=RKsr x 0.2 + CCsr x 0.4 = 84 x 0.2 + 79.0×0.4 = 16.8 + 31.6 = 48.4 points

Final control (40%), for example, the student answered 45 questions correctly out of 50 (90%),

90 x 0.4 = 36 points

Final grade (100%) =

1) RD (60%) + IC (40%) = 48.4 + 36 = 84.4 points

2) MTav x 0.2 + CCav x 0.4 + IC x 0.4 = 84.0 x 0.2 + 79.0 x 0.4 + 90 x 0.4 = 16.8 + 31.6 + 36 = 84.4 points

RKsr – average assessment of midterm controls

CCav – Average Assessment of Current Control

FC – assessment of the final control

MT 1 - Mid-term control 1

MT 2 – Midterm Control 2

RD – Tolerance Rating

CCav* - average current assessment taking into account SIW and standard points

Amlec – 1st Lecture Missed Rate

AmSIW is the skip coefficient of the 1st SIWT

14. Approval, approval and revision			
Date of approval	Protocol No ___	Full name of the head	Signature
Library and Information Center	Protocol No 7 25.06.25	Head of BIC Darbicheva R.I.	
Date of approval at the department	Protocol No 11 24.06.2025	Head of the Department of Morphophysiology, Candidate of Medical Sciences, Professor Tanabayev B.D.	
Date of approval at the department	Protocol No 11 26.06.25	Head of the Department of Topographic Anatomy and Histology , Candidate of Medical Sciences, Acting Professor Murzanova D.A.	
Date of approval for the AE EP Medicine	Protocol No 6 27.06.25	Chairman of the EP Medicine Áuyezkhankyzy D.	
Date of revision at the department	Protocol No ___	Head of the Department of Morphophysiology, Candidate of Medical Sciences, Professor Tanabayev B.D.	
Date of revision at the department	Protocol No ___	Head of the Department of Topographic Anatomy and Histology , Candidate of Medical Sciences, Acting Professor Murzanova D.A.	
Date of review on Ak OP Medicine	Protocol No ___	Chairman of the EP Medicine Áuyezkhankyzy D.	