



<p>ONȚUSTIK QAZAQSTAN MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ</p>		 <p>SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»</p>
<p>Department of Morphophysiology Department of Biology and Biochemistry Department of Phthisiopulmonology and Radiology</p>		<p>044-42/11 044-46/11 044-70/11 1p of 20</p>
<p>Syllabus on the discipline "Normal genitourinary system" Educational program: "Dentistry"</p>		

Syllabus
Educational program: 6B10117 "Dentistry"
Working curriculum (Syllabus) of the discipline
"The genitourinary system is normal"

1.	General information about the discipline		
1.1	Discipline code: MSN 2209	1.6	Academic year: 2023-2024
1.2	Title of the discipline: “The genitourinary system is normal”	1.7	Course:2
1.3	Prerequisites: introduction to the profession, structural organization of human physiological processes	1.8	Semester:4
1.4	Postrequisites: pathological physiology, pathological anatomy	1.9	Number of credits (ECTS): 5/150
1.5	Cycle:DB	1.10	Component:VK
2.	Description of the discipline		
formation of fundamental knowledge about the morphofunctional and biochemical features of the genitourinary system. The structure of the kidneys. Nephron. Structure of the ureter and bladder. The structure of male and female genital organs. Muscles and fascia of the perineum. Syntopy, holotopy, skeletopy of the genitourinary organs. Clinical and visual research methods.			
3.	Summative Assessment Form		
3.1	<input checked="" type="checkbox"/> Testing	3.5	Coursework
3.2	Writing	3.6	Essay
3.3	Oral	3.7	Project
3.4	<input checked="" type="checkbox"/> OSPE/OSKE or practical skills reception	3.8	Other (specify)
4.	Goals of the discipline		
To develop in students systematic knowledge about the morpho-functional characteristics of the human body and its constituent systems, providing further training at clinical departments to master the professional skills of a dentist; to form in students knowledge of the macro-functional morphology of the structure and development of human organ systems, and especially the organs of the oral cavity, which provide the basis for the study of clinical disciplines and contribute to the formation of medical thinking.			
5.	Final learning outcomes (RO disciplines)		
LO1	Demonstrates knowledge of the general patterns of structure and functioning of the musculoskeletal system and skin, their regulatory mechanisms, and the chemical composition and biological functions of bones and skin;		
LO2	Shows readiness to collect and analyze the patient’s complaints, his medical history, examination results, laboratory, radiological, instrumental and other studies in order to establish the presence or absence of the disease.		
LO3	Finds and distinguishes anatomical structures of the musculoskeletal system and skin in adults and children based on the results obtained (x-ray, fluorographic, ultrasound, computed tomography, magnetic resonance imaging)		
LO4	Applies knowledge of the structure and topography of organs and systems to master the skills of physical examination and provision of first aid.		
5.1	LO disciplines	EP learning outcomes with which LO disciplines are associated	


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	LO1 LO2	LO1 Demonstrate and apply knowledge and skills in the field of biomedical, clinical, epidemiological, socio-behavioral sciences, contributing to the formation of a well-rounded personality with a broad outlook and culture of thinking
	LO3 LO4	LO2 Analyze patterns of growth and development, the structure of the body in normal and pathological conditions, to understand the mechanisms of development of dental diseases


6.	Detailed information about the discipline					
6.1	<p>Location of the Department of Morphophysiology – Shymkent, sq. Al-Farabi 1, main academic building, ground floor; pl. Al-Farabi 3, educational building No. 2, 4–5 floor tel. internal – 40-82-22, 40-82-26 (263), e-mail anatomia.2012@mail.ru. building No. 1, 4 – floor, biology_biochemistry@mail.ru, tel. 40-82-06 (227); st. Kurmanbekova b/n, State Public Enterprise at the Regional Clinical Hospital of the Health Department. Ophthalmology Department, email address – el_nur2@mail.ru; st. Zhandosova, 92/9 (modular) Shymkent city multidisciplinary hospital, No. 2, email address – klinika_skma@mail.ru.</p>					
6.2	Number of hours	Lectures	Pr. Les.	Lab. Les.	SRO P	SIW
		10	40	-	30	70

6.3 Discipline study plan


		1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Anatomy	Lec	1					1			1						3	1,5 c
	Pr	2			2		1		2			2	1	2		12	
	SIW		2			2					2			1	2 PK -2	9	
Physiology	Lec		1					1			1					3	1,5 c
	Pr		2		1		2		1		2		2	2		12	
	SIW	2		2				2 M -1	1			2				9	
Histology	Lec			1												1	0,5 c
	Pr	1	1					1		1						4	
	SIW								1			1		1		3	
Biochemistry	Lec				1				1							2	1,0 c
	Pr			2		2		2		2						8	
	SIW						2			2			2			6	
Basics of radiology diagnostics	Lec					1										1	0,5 c
	Pr			1		1					1	1				4	
	SIW				2								1			3	

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7. Information about teachers					
№	FULL NAME	Degrees and position	Email address	Scientific interests, etc.	Achievements
1.	Tanabaev Baymakhan Dilbarkhanovich	head of the department, acting prof.	b.tanabayev@mail.ru	The direction of scientific research is "Macro-microhemocirculatory bed of the pelvic organs during ligation of the internal iliac arteries."	Gives lectures and conducts practical classes on anatomy in Kazakh and Russian.
2.	Murzanova DinarAlpenovna	Ph.D., Acting professors	dina.murzanova@gmail.com	The direction of scientific research is "Adam anatomy of the world".	Gives lectures and conducts practical classes on anatomy in Kazakh, Russian and English.
3.	Turekulova Akzharkyn Kenesovna	senior lecturer, master	jarkin-74@mail.ru	The direction of scientific research is - "The effect of lead on the structure of the wall of main arteries in hot climates."	He gives lectures and conducts practical classes on anatomy in the Kazakh language.
4	Daken Tolenovich Ospanov	senior teacher	dakenospanov@list.ru		He lectures and conducts practical anatomy classes in Kazakh and Russian languages.
5	Jubanishbaeva Gauhar Niyazgovna	senior lecturer, master	gaukharai_kairat@mail.ru	The direction of scientific research is - "Determining the problems of preventive work in the course of implementation of EMS"	He gives lectures and conducts practical classes on anatomy in the Kazakh language.
6	Ospanova Nasiba Bakhtiyarovna	teacher	Nasiba.ospanova.1998@mail.ru		conducts practical anatomy classes in Kazakh and Russian languages.


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7.	Sisabekov Kasymkhan Ermekbaevich	Professor, doctor of medical science	sisabekov47@ mail.ru	"Morphological basis of local mechanisms of neuroimmunogenesis."	He lectures and conducts practical classes on histology in Kazakh and Russian languages.
8.	Zhumashev Seydaly Nurakhovich	Acting professor, doctor of medical sciences	sult_med@mail. ru	Scientific direction: "Study of the morphological structure of hemo- immunopoiesis"	Gives lectures and conducts practical classes on histology in Kazakh and Russian.
9.	Toimbetova Karlygash Abibullaevna	senior teacher	tojmbetova71@ mail.ru	Scientific direction: "neuromorphology"	Gives lectures and conducts practical classes on histology in Kazakh and Russian languages
10.	Zhakupbekova Galiya Saparovna	Candidate of Biological Sciences, acting professors	Galiya_074@mail.ru	"The influence of bioslastilin on the processes of lipid peroxidation in hepatocytes and blood plasma during phosphorus intoxication" conducts work on the topic, defended the candidate's thesis.	The author has 35 scientific publications, prepared 1 pre- patent, 1 patent.
11.	Satybaldieva Nazgul Mutalkhanovna	master, senior teacher	n_a_z_i_92@mail.ru	Conducts research work on the topic "Socio- medical problems of disability caused by diseases of the respiratory system". Author of 11 scientific publications.	He gives lectures and conducts practical classes on physiology in Kazakh and Russian.
12.	Murina Natalya Mikhailovna	senior teacher	namuri12@mail.ru	The author has 9 scientific publications.	He gives lectures and conducts practical classes on physiology in Kazakh and Russian.


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13	Kenzhebekov P.K.	Candidate of Chemical Sciences, professor	kenzhebekov.p@gmail.com	"Investigation of the chemical composition of volatile aroma-forming compounds in some meat products"	The author is the author of 42 scientific publications, 1 textbook
14	Ordabekova A.B	master biology, Art. teacher	asmira75@mail.ru	"Microelementosis"	The author is the author of 20 scientific publications, 1 textbook
15	Asilbekova G.K.	master biology, Art. teacher	shahats@mail.ru	"Microelementosis"	The author is the author of 10 scientific publications, 1 textbook
16	Beisebaeva L.M.	Art. teacher	lyzzatb70@list.ru	"Organization of clinical and diagnostic laboratory service in modern conditions in the Republic of Kazakhstan"	The author has 4 scientific publications
17	Kanjigitova M.Zh.	Art. teacher	molya@mail.ru		
18	Zhienbaeva A.	teacher			1 scientific publication
19	Umurzakova Gauhar Amangeldievna	assistant department	visual_diagnostics@mal.ru	Radionuclide diagnostics of the urinary system	higher category, doctor radiologist More than 12 scientific articles
20	Umiraliyev Aset Amiraliyevich	assistant department	Aset.umiraliyev.72@mail.ru	Ultrasound of the abdominal cavity	higher category, doctor of radiological diagnostics. More than 8 scientific articles
21	Tulegenova Aigul Asanbaevna	assistant department	taa8009@mail.ru	Ultrasound of organs in children	master, doctor of radiology diagnostics. More than 20 scientific articles


8. Thematic plan lecture								
week/day	Lesson form	Topic name	Summary	LO discipline	Number of hours	Forms/methods/educational	Forms/assessment methods	

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						technologies	
1	Anatomy. Lecture No. 1	Morphofunctional characteristics of the organs of the urinary system.	Kidneys, structure, topography, kidney membranes. Ureter. Bladder. Urethra.	LO1 LO3 LO4	1	Introductory	Feedback (control questions)
	Physiology. Lecture No. 1	Physiology of the excretory system.	Excretory functions of the kidneys, lungs, skin. Mechanism of urine formation. Filtration. Reabsorption. Secretion.	LO1 LO3 LO4	1	Introductory	Feedback (control questions)
	Histology Lecture No. 1	Histology of the genitourinary system.	General morphofunctional characteristics. Kidneys, structure of the cortex and medulla. General morphofunctional characteristics of the reproductive system. Testes, structure and functional significance. Ovaries, structure and functional significance.	LO1 LO3 LO4	1	Review lecture.	Answers to security questions.
	Biochemistry Lecture No. 1	Biochemistry of the kidneys.	Biochemistry of the kidneys.	LO1 LO3 LO4	1	Review	Feedback Questions

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	Basics of radiation diagnostics Lecture No. 1	Radiation anatomy of the urinary system. Methods of radiological examination of the urinary system	Visual radiation anatomy of the urinary system. Methods of radiological examination of the urinary tract	LO 2 LO 4	1	Overview - illustrative	Feedback
	Anatomy. Lecture No. 2	Morphofunctional characteristics of male genital organs.	Testicles. Vas deferens. Seminal vesicles. The spermatic cord and testicular membranes. Penis. Male urethra. Prostate.	LO1 LO3 LO4	1	Introductory	Feedback (control questions)
	Physiology. Lecture No. 2.	Regulation of secretion	Regulation of secretion	LO1 LO3 LO4	1	Review lecture.	Feedback (control questions)
	Biochemistry Lecture No. 2	Regulation of water-salt metabolism.	Mechanisms of action of aldosterone and vasopressin on diuresis.	LO1 LO3 LO4	1	Review	Feedback Questions
	Anatomy. Lecture No. 3	Morphofunctional characteristics of the female genital organs.	Ovary. The fallopian tubes. Uterus. Vagina. External genitalia.	LO1 LO3 LO4	1	Introductory	Feedback (control questions)
	Physiology. Lecture No. 3.	Human reproductive functions.	Functions of female and male genital organs.	LO1 LO3 LO4	1	Review lecture.	Feedback (control questions)

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					10		
	Anatomy. Practical lesson No. 1	Kidney, ureter: structure, topography and functions.	Structure and topography of the kidney. Kidney fixation. Kidney membranes. Renal pelvis, calyces and ureter. Fornical apparatus of the renal calyces.	LO1 LO3 LO4	2	work in small groups with anatomical preparations, torsos, dummies, tables, tablets, posters, on the interactive panel "Pirogov" and/or solving test tasks and situational problems.	Oral interview checklist; Checklist for solving situational problems; Checklist for completing test tasks
	Histology. Practical lesson No. 1	Organs of the urinary system	Morphofunctional characteristics. Kidney structure. Nephron. Histophysiology of the nephron. Features of the blood supply to the kidney. Urinary tract.	LO1 LO3 LO4	1	Work in small groups, checklist of histopreparations, microphotographs	Practical lesson assessment checklist.
	Physiology. Practical lesson No. 1	Excretory functions of the kidneys.	Excretory functions of the kidneys. Structure and functions of the nephron.	LO1 LO3 LO4	2	discussing the main issues of the topic, completing test tasks, solving situational problems.	Oral questioning, assessment of practical work, assessment of test tasks, assessment of solutions to situational problems
	Histology	Organs of the male	Morphofunctional characteristics	LO1 LO3 LO4	1	Work in small groups,	Practical lesson assessment checklist.

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	Practical lesson No. 2	reproductive system	of the reproductive system. Structure of the testes and spermatogenesis. Vas deferens. Accessory glands of the male reproductive system.			checklist of histopreparations, microphotographs	
	Biochemistry Practical lesson No. 1	Biochemistry of the kidneys.	Biological functions of the kidneys. Urinary function of the kidneys.	LO1 LO3 LO4	2	seminar, situational tasks	Check list
	Basics of radiology diagnostics Practical lesson No. 1	Radiation anatomy of the urinary system. Methods of radiological examination of the urinary system. Sonography. Plain radiography of the abdominal area.	Radiation anatomy of the urinary system. Methods of radiological examination of the urinary system. Sonography. Plain radiography of the abdominal area.	LO2 LO4	1	discussion, work with provided radiological images	oral questioning, description of images, solving test tasks, solving crossword puzzles, working with radiological images
	Anatomy. Practical	Structural and functional	The structure of the nephron. Kidneys: blood supply,	LO1 LO3 LO4	2	work in small groups with anatomical	Oral interview checklist; Checklist for solving situational problems;

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	lesson No. 2.	unit of the kidney.	innervation, venous and lymphatic drainage.			preparation s, torsos, dummies, tables, tablets, posters, on the interactive panel "Pirogov" and/or solving test tasks and situational problems.	Checklist for completing test tasks
	Physiology. Practical lesson No. 2.	Processes of urine formation.	Basic processes of urine formation. Composition of final urine.	LO1 LO3 LO4	1	discussing the main issues of the topic, completing test tasks, solving situational problems.	Oral questioning, assessment of practical work, assessment of test tasks, assessment of solutions to situational problems
	Biochemistry Practical lesson No. 2	Properties of urine.	Physico-chemical properties and chemical composition of urine of a healthy person. Daily urinary excretion of metabolites is normal.	LO1 LO3 LO4	2	seminar, situational tasks, testing	Check list
	Basics of radiology diagnostics Practical lesson No. 2	Methods of radiological examination of the urinary system. Intravenous	Methods of radiological examination of the urinary system. Intravenous urography. Pyelography.	LO2 LO4	1	discussion, work with provided radiological images	oral questioning, description of images, solving test tasks, solving crossword puzzles, working with radiological images

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		us urography . Pyelograph hy.					
	Anatomy. Practical lesson No. 3.	Bladder. Urethral canal.	Bladder, urethra: structure, topography, functions.	LO1 LO3 LO4	1	work in small groups with anatomical preparation s, torsos, dummies, tables, tablets, posters, on the interactive panel "Pirogov" and/or solving test tasks and situational problems.	Oral interview checklist; Checklist for solving situational problems; Checklist for completing test tasks
	Physiology. Practical lesson No. 3.	Regulation of urine formation processes.	Nervous and humoral regulation of urinary processes.	LO1 LO3 LO4	2	discussing the main issues of the topic, completing test tasks, solving situational problems.	Oral questioning, assessment of practical work, assessment of test tasks, assessment of solutions to situational problems
	Histology Practical lesson No. 3	Organs of the female reproductive system1.	Embryonic sources and course of development. The structure of the ovaries, oogenesis and development of the corpus luteum.	LO1 LO3 LO4	1	Work in small groups, checklist of histo preparation s, microphoto graphs	Practical lesson assessment checklist.

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	Biochemistry Practical lesson No. 3	Electrolyte composition of body fluids.	Water and minerals of human tissues, their biological functions. Electrolyte composition of body fluids. Minerals and their biological functions. Sodium-potassium homeostasis. Mechanisms for maintaining a constant pH of the internal environment.	LO1 LO3 LO4	2	seminar, situational tasks	Check list
	Anatomy. Practical lesson No. 4.	Male genital organs: structure, functions.	Testicles. Vas deferens. Seminal vesicles. The spermatic cord and testicular membranes. Penis. Male urethra. Bulbourethral glands. Prostate.	LO1 LO3 LO4	2	work in small groups with anatomical preparations, torsos, dummies, tables, tablets, posters, on the interactive panel "Pirogov" and/or solving test tasks and situational problems.	Oral interview checklist; Checklist for solving situational problems; Checklist for completing test tasks
	Physiology. Practical lesson No. 4	Thermoregulation. Sweating.	Quantities, composition and properties of sweat Innervation of sweat glands	LO1 LO3 LO4	1	discussing the main issues of the topic, completing test tasks, solving	Oral questioning, assessment of practical work, assessment of test tasks, assessment of solutions to situational problems

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			and regulation of their activity.			situational problems.	
	Histology Practical lesson No. 4	Organs of the female reproductive system ² .	Embryonic sources and course of development. The structure of the oviduct and uterus, vagina. Mammary gland in various functional states.	LO1 LO3 LO4	1	Work in small groups, checklist of histopreparations, microphotographs	Practical lesson assessment checklist.
	Biochemistry Practical lesson No. 4	Regulation of water-salt metabolism.	Regulation of water-salt metabolism. Mechanisms of action of aldosterone and vasopressin on diuresis. Renin-angiotensin-aldosterone system. Presulfur NUF (sodium uretic factor)	LO1 LO3 LO4	2	seminar, situational tasks, testing.	Check list
	Physiology. Practical lesson No. 5.	Non-excretory renal function	Humoral and metabolic functions of the kidneys. Maintaining the acid-base ratio.	LO1 LO3 LO4	2	discussing the main issues of the topic, completing test tasks, solving situational problems.	Oral questioning, assessment of practical work, assessment of test tasks, assessment of solutions to situational problems
	Basics of radiology diagnostics Practical lesson No. 3	Methods of radiological examination of the urinary system.	Methods of radiological examination of the urinary system.	LO 2 LO4	1	discussion, work with provided radiological images	oral questioning, description of images, solving test tasks, solving crossword puzzles, working with radiological images

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	Anatomy. Practical lesson No. 5.	Muscles and fascia of the male perineum.	Crotch. Superficial and deep muscles of the genitourinary and pelvic diaphragm. Fascia of the perineum.	LO1 LO3 LO4	2	work in small groups with anatomical preparations, torsos, dummies, tables, tablets, posters, on the interactive panel "Pirogov"	Oral interview checklist; Checklist for solving situational problems; Checklist for completing test tasks
	Basics of radiology diagnostics Practical lesson No. 4	Intravenous urography . Pyelography. Angiography of the kidneys.	Intravenous urography. Pyelography. Angiography of the kidneys.	LO 2 LO4	1	discussion, work with provided radiological images	oral questioning, description of images, solving test tasks, solving crossword puzzles, working with radiological images
	Anatomy Practical lesson No. 6	Female genital organs: structure, topography, functions.	Ovary. The fallopian tubes. Uterus. Vagina. External genitalia.	LO1 LO3 LO4	1	work in small groups with anatomical preparations, torsos, dummies, tables, tablets, posters, on the interactive panel "Pirogov" and/or solving test tasks and situational problems.	Oral interview checklist; Checklist for solving situational problems; Checklist for completing test tasks
	Physiology.	Functions of the	Functions of the external and	LO1 LO3	2	discussing the main	Oral questioning, assessment of

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	Practical lesson No. 6.	female reproductive system.	internal female genital organs. Phases of the reproductive cycle. Pregnancy and maternal-fetal relationships. Lactation. Regulation.	LO4		issues of the topic, completing test tasks, solving situational problems.	practical work, assessment of test tasks, assessment of solutions to situational problems
	Anatomy Practical lesson No. 7	Muscles and fascia of the female perineum.	Crotch. Superficial and deep muscles of the genitourinary and pelvic diaphragm. Fascia of the perineum.	LO1 LO3 LO4	2	work in small groups with anatomical preparations, torsos, dummies, tables, tablets, posters, on the interactive panel "Pirogov" and/or solving test tasks and situational problems.	Oral interview checklist; Checklist for solving situational problems; Checklist for completing test tasks
	Physiology. Practical lesson No. 7.	Functions of the male reproductive system.	Functions of the testes, prostate, bulbourethral glands and seminal vesicles.	LO1 LO3 LO4	2	discussing the main issues of the topic, completing test tasks, solving situational problems.	Oral questioning, evaluation of test tasks, solving situational problems.
					40		
	Physiology. SIW 1.	Non-excretory functions of the kidneys.	Endocrine, hematopoietic, metabolic and other functions of the kidneys.	LO1 LO3 LO4	2/4	Preparation and defense of presentations.	Checklist for assessing SIW.

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	Anatomy of SIW 1	Malformations of the organs of the urinary system.	Malformations of the kidneys, bladder, ureter and urethra.	LO1 LO3 LO4	2/4	Consultation on the most complex issues of the curriculum when performing SRO, work with educational literature, passing SRO in the form of: - Description of an anatomical specimen on the anatomical table "Pirogov" - presentation	Evaluation sheets for certain forms of completed assignments
	Physiology. SIW 2.	Excretory functions of the skin.	Structural and functional features of the sebaceous and sweat glands. Composition of sebum and sweat.	LO1 LO3 LO4	2/4	Preparation and defense of presentations.	Checklist for assessing SIW.
	Fundamentals of radiology diagnostics SIW 1	Radiation anatomy of the urinary system. Methods of radiologic	Radiation anatomy of the urinary system. Methods of radiological examination of the urinary	LO 2 LO4	2/4	preparing presentations, composing crossword puzzles, test tasks, situational	defending presentations, solving crossword puzzles, test tasks, situational problems, working with radiological images.

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		al examination of the urinary system. Sonography. Plain radiography of the abdominal area.	system. Sonography. Plain radiography of the abdominal area.			tasks, working with radiological images	
	Anatomy. SIW 2.	Malformations of the male genital organs.	Malformations of the penis and testicle.	LO1 LO3 LO4	2/4	Consultation on the most complex issues of the curriculum when performing SRO, work with educational literature, passing SRO in the form of: - Description of the anatomical specimen on the anatomical panel "Pirogov" - presentation	Evaluation sheets for certain forms of completed assignments
	Biochemistry. SIW 1.	The constituents of	The constituents of urine are normal. Non-	LO1 LO3 LO4	2/4	essay, presentation, glossary	checklist for SIW assessment.

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		urine are normal.	protein nitrogenous substances in urine.				
	Physiology. SIW 3.	Midterm-I.	Consolidation of the material covered on the topics of lectures, practical classes, SIW	LO1 LO3 LO4	2	Written solution of integrated situational problems	Checklist for performing integrated situational tasks
	Histology of SIW 1	Endocrine apparatus of the kidney.	Components of the juxtaglomerular apparatus. Localization of interstitial cells, juxtavascular and macula densa cells.	LO1 LO3 LO4	1/2	Work in small groups, defending a presentation, compiling a glossary.	Checklist for SIW assessment
	Physiology . SIW 4.	The process of fertilization of an egg. Implantation. Pregnancy.	Features of egg fertilization. Movement of the zygote through the fallopian tubes. Implantation. Periods of pregnancy.	LO1 LO3 LO4	1/3	Preparation and defense of presentations.	Checklist for SIW assessment
	Biochemistry . SIW 2.	Features of metabolism in the kidneys.	Features of metabolism in the kidneys.	LO1 LO3 LO4	2/4	essay, presentation, glossary	Checklist for SIW assessment
	Anatomy . SIW 3.	Malformations of the female genital organs.	Malformations of the uterus and vagina.	LO1 LO3 LO4	2/4	Consultation on the most complex issues of the curriculum when performing SRO, work with	Evaluation sheets for certain forms of completed assignments

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						<p>educational literature, passing SRO in the form of:</p> <ul style="list-style-type: none"> - Description of the anatomical specimen on the anatomical panel "Pirogov" - presentation 	
	Physiology. SIW 5.	The influence of hormones on diuresis.	Mechanisms of the renin-angiotensin-aldosterone system.	LO1 LO3 LO4	2/4	Preparation and defense of presentations.	Checklist for SIW assessment
	Histology SIW 2	Sources and course of embryonic development of the reproductive system.	Sources and course of embryonic development of the organs of the reproductive system. Factors of sexual differentiation. Age-related changes in the organs of the reproductive system.	LO1 LO3 LO4	1/3	Work in small groups, defending a presentation, compiling a glossary.	Checklist for SIW assessment
	Biochemistry. SIW 3.	Regulation of diuretic hormones.	Secretion and mechanism of action of ADH. Mechanisms of the renin-angiotensin-aldosterone system.	LO1 LO3 LO4	2/3	presentation, analysis of scientific articles on the topic, glossary	checklist for assessing SIW, assessing understanding, ability to analyze a scientific article and the formation of certain scientific concepts

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	Fundamentals of radiology diagnostics SIW 2.	Methods of radiological examination of the urinary system. Intravenous urography. Pyelography. Intravenous urography....	Methods of radiological examination of the urinary system. Intravenous urography. Pyelography. Intravenous urography....	LO 2 LO4	1/3	preparing presentations, composing crossword puzzles, test tasks, situational tasks, working with radiological images	defending presentations, solving crossword puzzles, test tasks, situational problems, working with radiological images.
	Anatomy. SIW 4	Malformations of the female genital organs.	Malformations of the uterus and vagina.	LO1 LO3 LO4	1/3	Consultation on the most complex issues of the curriculum when performing SIW, work with educational literature, passing SIW in the form of: - Description of the anatomical specimen on the anatomical	Evaluation sheets for certain forms of completed assignments

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						panel "Pirogov" - presentatio n	
	Histolog y SIW 2	Sources and course of embryoni c developm ent of the reproduct ive system.	Sources and course of embryonic development of the organs of the reproductive system. Factors of sexual differentiation. Age-related changes in the organs of the reproductive system.	LO1 LO3 LO4	1/3	Work in small groups, defending a presentatio n, compiling a glossary.	Checklist for SIW assessment
	Anatom y. SIW 4	Midterm- II.	Consolidation of the material covered on the topics of lectures, practical classes, SIW.	LO1 LO3 LO4	2	Written solution of integrated situational problems	Checklist for performing integrated situational tasks
	Preparation and conduct of intermediate certification				15		
9.	Learning and teaching methods						
9.1	Lectures			introductory, overview, overview and illustrative. control form: Feedback (control questions)			
9.2	Practical lessons			work in small groups, solving test and situational tasks, discussing the main issues of the topic, filling out a checklist of histological preparations and microphotographs, performing practical skills, discussion, working with radiological images. Form of control: Oral questioning, solving test tasks and situational (clinical) problems, a checklist for assessing a practical lesson, assessing crossword puzzle solving, assessing practical skills, assessing the description of radiological images.			
9.3	SIW			Consultation on the most complex issues of the curriculum when performing SIW, working with educational literature, preparing a presentation, sketching a diagram of nerve courses and areas of innervation, preparing a glossary, a smart map,			

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		solving situational (clinical) problems, discussing the results of radiological studies, conducting midterm control, Form of control: Evaluation sheets for certain forms of completed assignments			
9.4	Midterm	in writing - solving integrated situational problems Form of control: assessment of the implementation of integrated situational tasks.			
10.	Evaluation criteria				
10.1	Criteria for assessing the learning outcomes of the discipline				
№ LO	Name of learning outcomes	unsatisfactory	Satisfactorily	Fine	Great
LO1	Demonstrates knowledge of the general patterns of structure and functioning of the musculoskeletal system and skin, their regulatory mechanisms, and the chemical composition and biological functions of bones and skin;	- does not demonstrate knowledge of the subject and tasks of anatomy, histology and physiology; -does not know the structure and general patterns of functioning of cells, tissues, regulatory mechanisms	- demonstrates partial knowledge of the subject and tasks of anatomy, histology and physiology, makes gross mistakes; - does not fully know the structure and general patterns of functioning of cells, tissues, regulatory mechanisms, makes gross mistakes.	- demonstrates knowledge of the subject and tasks of anatomy, histology and physiology, their importance for medicine; -knows the structure and general patterns of functioning of cells, tissues, regulatory mechanisms	-demonstrates excellent knowledge of the subject and tasks of anatomy, histology and physiology, their importance for medicine; -knows well the structure and general patterns of functioning of cells, tissues, regulatory mechanisms
LO2	Shows readiness to collect and analyze the patient's complaints, his medical history, examination results, laboratory, radiological, instrumental and other studies in order	- does not compare the results of experimental observations with data obtained from modern sources of information; does not draw conclusions based on the results of laboratory	- compares the results of experimental observations with data obtained from modern sources of information	- compares the results of experimental observations with data obtained from modern sources of information; - presents personal judgments at practical classes, student circle meetings, student scientific	- freely compares the results of experimental observations with data obtained from modern sources of information; draws conclusions based on the results of laboratory tests; - freely presents personal opinions in practical classes, student circle

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	to establish the presence or absence of the disease.	tests; - does not present personal judgments in practical classes, student circle meetings, student scientific conferences.		conferences.	meetings, and student scientific conferences.
LO3	Finds and distinguishes anatomical structures of the musculoskeletal system and skin in adults and children based on the results obtained (x-ray, fluorographic, ultrasound, computed tomography, magnetic resonance imaging)	- does not distinguish, does not describe, does not compare the structural features of various cells, tissues, organs of the body and does not explain their functions; -does not have the skills to conduct laboratory cell research and methods for processing results	- partially describes, compares the structural features of various cells, tissues, organs of the body and explains their functions, makes gross mistakes; -partially has the skills to conduct laboratory cell research;	- distinguishes, describes, compares the structural features of various cells, tissues, organs of the body and explains their functions, makes unprincipled mistakes; -has the skills to conduct laboratory cell research and methods for processing results;	-perfectly distinguishes, describes, compares the structural features of various cells, tissues, organs of the body and explains their functions; - has excellent skills in conducting laboratory cell research and methods for processing results;

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LO4	Applies knowledge of the structure and topography of organs and systems to master the skills of physical examination and provision of first aid.	- does not transfer his own knowledge and skills to students when conducting educational experiments or explaining theoretical material; - does not have public speaking skills.	- has difficulty transferring one's own knowledge and skills to students when conducting educational experiments or explaining theoretical material; - Poor public speaking skills.	- transfers his own knowledge and skills to students when conducting educational experiments or explaining theoretical material; - has public speaking skills.	- freely transfers his own knowledge and skills to students when conducting educational experiments or explaining theoretical material; - has perfect public speaking skills.
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10.2 Criteria for assessing teaching technology methods

Checklist for a practical lesson: Students are assessed according to individual assessment criteria depending on the form/method of assessment used during the lesson (oral questioning, solving test tasks, solving situational problems, checklist for assessing a practical lesson, assessing crossword puzzles, assessing practical skills, assessment of the description of radiological images), their average score is given in the journal.


Checklist for self-regulatory organizations: Evaluation sheets for certain forms of completed tasks

Interim certification: OSPE. Testing

Multi-point knowledge assessment system

Letter grade	Digital equivalent of points	Percentage	Traditional assessment
A	4,0	95-100	Great
A -	3,67	90-94	
B +	3,33	85-89	Fine
B	3,0	80-84	
B -	2,67	75-79	
C +	2,33	70-74	
C	2,0	65-69	Satisfactorily
C -	1,67	60-64	
D+	1,33	55-59	
D-	1,0	50-54	
FX	0,5	25-49	Not satisfactory
F	0	0-24	

Verbal response Form control	Grade	Criteria for evaluation
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Verbal response	<p>Great</p> <p>Corresponds to points:</p> <p>95-100</p> <p>90-94</p>	The student did not make any mistakes during the answer, was oriented in the theories, concepts and directions of the discipline being studied, gave them a critical assessment, and also used the scientific achievements of other disciplines.
	<p>Fine</p> <p>Corresponds to points:</p> <p>85-89</p> <p>80-84</p> <p>75-79</p> <p>70-74</p>	The student did not make gross mistakes during the answer, but made inaccuracies and unprincipled errors, corrected by himself, and managed to systematize the program material with the help of the teacher.
	<p>Satisfactorily</p> <p>Corresponds to points:</p> <p>65-69</p> <p>60-64</p> <p>50-59</p>	During the answer, the student made fundamental mistakes, limited himself only to the educational literature indicated by the teacher, and experienced great difficulties in systematizing the material.
	<p>Unsatisfactory</p> <p>Corresponds to points</p> <p>0-49</p>	The student made gross mistakes while answering, did not study the basic literature on the topic of the lesson, and failed to use scientific terminology in histology and physiology.

Performing test tasks (testing)


form of control	Grade	Criteria for evaluation
Performing test tasks (testing)	<p>Great</p> <p>Compliant</p> <p>points:</p> <p>95-100</p> <p>90-94</p>	The student completed 90-100% of test tasks correctly.
	<p>Fine</p> <p>Corresponds to points:</p> <p>85-89</p> <p>80-84</p> <p>75-79</p> <p>70-74</p>	The student completed 75-89% of test tasks correctly.
	<p>Satisfactorily</p> <p>Corresponds to points:</p> <p>65-69</p> <p>60-64</p> <p>50-59</p>	The student completed 50-69% of test tasks correctly.
	<p>Unsatisfactory</p> <p>Corresponds to points</p> <p>0-49</p>	The student completed less than 50% of the test tasks correctly.

Evaluation paper

Criteria for evaluating descriptions of anatomical preparations

FULL NAME. student _____

№ steps	Step Evaluation Criteria	Great 90-100	Fine 70-89	Satisfactory 50-69	Unsatisfactory 0-49
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		Gave a clear, comprehensive answer, correctly named the organs in Latin and Greek	He gave a fairly complete answer, but was confused about the terminology; made minor inaccuracies	I partially coped with the task: I was confused in my answer and did not give the full names of anatomical structures	Failed the task: failed to name anatomical structures
1.	The student recognizes the organ, gives its name in Latin, and, if necessary, in Greek	18-20	14-17,8	10-13,8	0-9,8
2.	The student describes the holotopy of the organ using professional terminology	18-20	14-17,8	10-13,8	0-9,8
3.	The student describes the skeletotopy of the organ using professional terminology	18-20	14-17,8	10-13,8	0-9,8
4.	The student describes the syntopy of the organ using professional terminology	18-20	14-17,8	10-13,8	0-9,8
5.	Describes the anatomical structure of the organ.	18-20	14-17,8	10-13,8	0-9,8


Maximum score – 100. Total points _____ **Signature of the teacher** _____

Evaluation paper

Criteria for assessing the implementation of the scheme (arterial courses)

FULL NAME. student _____

№	Step Evaluation Criteria	Level			
		Great 90-100	Fine 70-89	Satisfactory 50-69	unsatisfactory 0-49

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1.	The student must correctly find and sketch the diagram of the artery courses	18-20	14-17,8	10-13,8	0-9,8
2.	The student must give the full name of the arteries in Latin.	18-20	14-17,8	10-13,8	0-9,8
3.	The student must correctly indicate the topography and projection of the arteries	18-20	14-17,8	10-13,8	0-9,8
4.	Must list all branches of arteries	18-20	14-17,8	10-13,8	0-9,8
5.	The student must indicate the areas of blood supply	18-20	14-17,8	10-13,8	0-9,8

Maximum score – 100. Total points _____ Signature of the teacher _____

Evaluation paper

Criteria for assessing the implementation of the scheme (formation of veins and lymphatic vessels)

FULL NAME. student _____

№	Step Evaluation Criteria	Level			
		Great 90-100	Fine 70-89	Satisfactory 50-69	Unsatisfactory 0-49
1.	The student must correctly draw a diagram of the formation of veins and lymphatic vessels)	18-20	14-17,8	10-13,8	0-9,8
2.	The student must give the full name of veins and lymphatic vessels in Latin.	18-20	14-17,8	10-13,8	0-9,8
3.	The student must correctly indicate the topography of veins and lymphatic vessels	18-20	14-17,8	10-13,8	0-9,8
4.	Must indicate all tributaries of veins and lymphatic vessels.	18-20	14-17,8	10-13,8	0-9,8
5.	The student must indicate the areas drained by a given vein or lymphatic vessel	18-20	14-17,8	10-13,8	0-9,8


Maximum score – 100. Total points _____ Teacher's signature _____

Evaluation paper

Criteria for assessing the implementation of the scheme (nerve courses)

FULL NAME. student _____

№	Step Evaluation Criteria	Level			
		Great 90-100	Fine 70-89	Satisfactory 50-69	unsatisfactory 0-49
1.	The student must correctly draw a diagram of the nerve pathways	18-20	14-17,8	10-13,8	0-9,8

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<p> Department of Morphophysiology Department of Biology and Biochemistry Department of Phthiopulmonology and Radiology </p>		<p>044-42/11 044-46/11 044-70/11 1p of 20</p>
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2.	The student must give the full name of the nerves in Latin.	18-20	14-17,8	10-13,8	0-9,8
3	The student must correctly indicate the topography and projection of the nerves	18-20	14-17,8	10-13,8	0-9,8
4.	Must list all branches of nerves	18-20	14-17,8	10-13,8	0-9,8
5.	The student must indicate the areas of innervation	18-20	14-17,8	10-13,8	0-9,8

Maximum score – 100. Total points _____ Teacher's signature _____

Evaluation paper

Criteria for evaluating presentations in multimedia format

FULL NAME. student _____


№	Criterion	Level, score in points			
		Great 90-100	Fine 70-89	Satisfactory 50-69	Unsatisfactory 0-49
1.	Availability 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 assigned tasks.	9-10	7-8,9	5-6,9	0-4,9
3.	Arranging 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.	The ability to generalize material and draw clear conclusions.	9-10	7-8,9	5-6,9	0-4,9
7.	Level of orientation in the presentation material.	9-10	7-8,9	5-6,9	0-4,9
8.	Ability to report clearly, competently, and 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 slide design (colorfulness, clarity, etc.).	9-10	7-8,9	5-6,9	0-4,9

Maximum score – 100. Total points _____ Teacher's signature _____


11. Learning Resources

Electronic resources


1. Repository UKMA <http://lib.ukma.kz/repository/>
2. Republican interuniversity electronic library <http://rmebrk.kz/>
3. Consultant to the student <http://www.studmedlib.ru/>
4. Open library <https://kitap.kz/>
5. Website: www.skma.kz

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<p style="text-align: center;"> Department of Morphophysiology Department of Biology and Biochemistry Department of Phthisiopulmonology and Radiology </p>			<p>044-42/11 044-46/11 044-70/11 1p of 20</p>
<p style="text-align: center;"> Syllabus on the discipline "Normal genitourinary system" Educational program: "Dentistry" </p>			

Electronic textbooks	<ol style="list-style-type: none"> 1. Bilic, G. L. Human anatomy. Atlas. B 3 t. T.1. Supportive motor apparatus. Osteology. Syndesmology. Myology [Electronic resource] : textbook - M. : GEOTAR - Media, 2013. 2. Bilic, G. L. Human anatomy. Atlas. B 3 t. T. 2 [Electronic resource] : M. : GEOTAR - Media, 2013. 3. Bilic, G. L. Human anatomy. Atlas. V. 3 t. T. 3 [Electronic resource] : textbook M. : GEOTAR - Media, 2013. 4. Human anatomy. B 2 t. T. 1 [Electronic resource] : textbook M. : GEOTAR - Media, 2013. 5. Human anatomy. B 2 t. T. 2 [Electronic resource] : textbook - M. : GEOTAR - Media, 2013 6. Atlas. Anatomy and physiology. Esimbekova R.I. , 2013/CB Aknurpress 7. /https://aknurpress.kz/login 8. Anatomy of genitourinary organs. Ahmad N.S., 2019 / CB Aknurpress /https://aknurpress.kz/login 9. Human anatomy. Dosaev T.M. , 2019./ CB Aknurpress https://aknurpress.kz/login 10. Anatomy. Omash K., 2013/CB Aknurpress / .https://aknurpress.kz/login 11. Human anatomy: Textbook. / T.S. Kosmanbetov, A.M. Iskindirova, B.Sh. Shakenovt.p., General editor. managed by T.M. Dosaev; S.J. Kazakhstan State Medical University in Asfendiarovat. - Almaty: AKNUR publishing house, 2013. - 366-ISBN 9965-604-95-9./RMEB/ http://rmebrk.kz/ 12. Gavrilov L.F., Tatarinov V.G. Anatomy: Textbook, - 2nd ed., revised. and the ball. - Almaty: Evero, 2020. - 424 p.,https://elib.kz/ru/search/read_book/279
Literature	<p>Basically:</p> <ol style="list-style-type: none"> 1. Borzyak E. I. Human anatomy. Photographic atlas. B 3 t. T. 3. Internal organs of the nervous system: textbook - M.: GEOTAR - Media, 2016. - 488 p. 2. Borzyak E. I. Human anatomy. Photographic atlas. In 3 volumes. Volume 2. Cardiovascular system. Lymphatic system. - M.: GEOTAR - Media, 2015. – 368 p. 3. Borzyak E. I. Human anatomy. Photographic atlas. B 3-x tomah. Volume 1. Support - engine apparatus. - M. : GEOTAR - Media, 2014. - 480 p 4. Gaivoronsky I. V. Human anatomy. B 2 t. T. 1. System of support and movement of organs. Splanchnology: textbook - M.: GEOTAR - Media, 2014 5. Human anatomy. B 3 t. T. 1. Locomotor apparatus: illustrated textbook / under the editorship. L. L. Kolesnikova; Master of Education and Science of the Russian Federation.. - M.: GEOTAR - Media, 2014. - 320 p. 6. Sinelnikov R. D. Human anatomy atlas. B 4 t. T. 1. Learning about bones, joints of bones and muscles: учеб. allowance. - 7-e izd, pererab. - M. : Novaya volna : Izdatel Umerenkov, 2012. 7. Sinelnikov R. D. Human anatomy atlas. B 4 t. T. 2. Learning about the internal organs and endocrine glands: учеб. allowance. - 7th edition, pererab. - M.: Novaya volna: Izdatel Umerenkov, 2012. 8. Sinelnikov R. D. Human anatomy atlas. B 4 t. T. 3. Learning about blood vessels and lymphoid organs: study. allowance. - 7th edition, pererab. - M. : Novaya volna : Izdatel Umerenkov, 2012.


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<p> Syllabus on the discipline "Normal genitourinary system" Educational program: "Dentistry" </p>		<p>1p of 20</p>

	<p>9. Sinelnikov R. D. Human anatomy atlas. B 4 t. T. 4. Learning about the nervous system and organs of the senses: lesson. allowance. - 7th edition, pererab. - M.: Novaya volna: Izdatel Umerenkov, 2012.</p> <p>10. Prives M. G. Human anatomy: textbook. - 12th edition, reworked. and the ball. - SPb.: Izd. house SPbMAPO, 2009.</p> <p>Additional:</p> <p>1. Sisabekov K.E., Tanabaev B.D., Ospanov D.T. Clinical anatomy and operative surgery of the head and neck: textbook - Shymkent: "Alem" publishing house, 2018.-136 p.</p> <p>2. Netter F. Atlas of human anatomy: atlas - M.: GEOTAR - Media, 2015. - 624 p.</p> <p>3. Human anatomy. B 3 t. T 2. Splanchnology and cardiovascular system: illustrated textbook / M-vo obrazovaniya i nauki RF; under ed. L. L. Kolesnikova. - M.: GEOTAR - Media, 2014. - 320 p.</p> <p>4. Anatomy by Pirogov. Human anatomy atlas. B 3 t. T. 2. Head. Sheya: M.: GEOTAR - Media, 2013</p> <p>5. Boyanovich Yu. V. Human anatomy: an atlas. - Rostov, n/a: Phoenix, 2011</p> <p>6. Fenish H. Pocket atlas of human anatomy: atlas: per. s Eng. - 5th edition, ex. and the ball. - St. Petersburg: Dilya, 2010</p> <p>7. Ellis G. Atlas of human anatomy in sections, CT and MRI - images: atlas: per. sneem - M.: GEOTAR - Media, 2010.</p>
12.	Politics discipline
<p>Requirements for my students:</p> <ol style="list-style-type: none"> 1. to be late for classes; 2. do not skip classes without valid reasons; 3. have anatomical gloves, tweezers and scalpel; 4. show activity during practical classes; 5. be able to work in a team; 6. in a timely manner, according to the schedule, perform and submit SIW; 7. do not engage in extraneous activities during occupations; <ol style="list-style-type: none"> 1. be tolerant, open and friendly to fellow students and teachers; observe ethical norms of behavior when working with anatomical preparations and organs of the human body; 2. The property department is carefully treated; 3. timely make up missed classes for valid reasons; 4. observe technical safety in the classroom. 5. . During lectures/practical classes/SROP students are prohibited from: 6. use mobile devices/gadgets; 7. leave the classroom/auditorium (leave the workplace at the clinical/production base) without the teacher's permission. <p>Dress code required</p> <p>The student is obliged to:</p> <ol style="list-style-type: none"> 1. have a clean, ironed medical gown, cap/hat; 2. have neat hair, short cut nails; (for girls: bright make-up and bright nail polish are acceptable). <p>Penalties:</p>	

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1. In the event of a single violation of the discipline policy, the student receives a verbal warning from the teacher.
 2. In case of repeated violations of the discipline policy, the student shall provide an explanation to the head of the department.
 3. In the event of a systematic violation of the policy of discipline, the head of the department submits an appropriate report to the dean's office.
- A student who did not appear at the border control without a valid reason and received an unsatisfactory grade for one of the types of controls (M1, M2) is not admitted to the discipline examination; A student, who did not attend the M for a valid reason, immediately after starting classes, with the permission of the dean's office, receives a work sheet.
- For 1 missed lecture, due to an insignificant reason, the staff score is 1.0 points and is subtracted from the border control assessment.
- For 1 failure of SIW, for any valid reason, the penalty score is 2.0 points and is subtracted from the SIW grades. Bonus points are calculated according to the policy of the department. Bonus points are added to the assessment of border control. For active participation in the work of SNK and seminars in each discipline, a bonus point from 5 to 10 is assigned to the student.

13.	Academic policy based on moral and ethical values of the academy
	P.4 Code of honor of the student
	P.10. Organization of the educational process
	<p>P.12. The policy of issuing ratings</p> <p>Final control - students who have fully mastered the disciplines of the program and scored an admission rating are admitted to the exam.</p> <p>The final score is calculated automatically based on the average score of the current control, the average score of the border controls and the score of the final control:</p> <p>Admission rating (60%) = average score of border controls (20%) + average score of current control (40%)</p> <p>Average score of border controls = $M1 + M2 / 2$</p> <p>The average score of the current control = the average arithmetic sum of the current scores, taking into account the average score according to SIW and penalty points.</p> <p>Final score (100%) = $Msr \times 0.2 + srx \ 0.4 + IR \times 0.4$</p> <p>Final grade (100%) = Admission rating (60%) + Final control (40%)</p>
	<p><u>An example of calculating the student's final grade:</u></p> <p><u>Penalty points:</u></p> <p><u>For example, a student missed 2 lectures = $1.0 \times 2 = 2.0$ points</u></p> <p><u>1 SROP per pass = 2.0 points</u></p> <p>M 1 – 80 scores</p> <p>M 2 – 90 scores</p> <p>$Mcp = \frac{(80-2)+90}{2} = 84$ scores</p> <p>Average arithmetic assessment of current control (practical and laboratory classes) - 80 points</p> <p>SIW 1 – 75 scores</p> <p>SIW 2 – 85 scores</p> <p>SRON... – quantity SIW</p> <p>Average score for SIW = $\frac{75 + 85 + N...}{2 + N...} = 80$ scores</p>

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Current average score with SIW and penalty points taken into account:

$$S^* = \frac{Scp + SIWcp}{2} - S = \frac{80 + (80 - 2,0)}{2} = \frac{158}{2} = 79,0$$

Rating allowed (60%) = $Mcp \times 0,2 + Scp \times 0,4 = 84 \times 0,2 + 79,0 \times 0,4 = 16,8 + 31,6 = 48,4$ scores

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

$90 \times 0,4 = 36$ scores

Final assessment (100%) =

1) $R (60\%) + F (40\%) = 48,4 + 36 = 84,4$ scores

2) $Mcp \times 0,2 + Scp \times 0,4 + F \times 0,4 = 84,0 \times 0,2 + 79,0 \times 0,4 + 90 \times 0,4 = 16,8 + 31,6 + 36 = 84,4$ scores

RKsr - the average score of border controls

TCsr is the average assessment of the current control

IR - evaluation of the final control

M 1 - boundary control 1

M 2 - boundary control 2


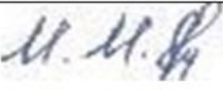
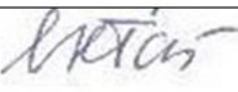
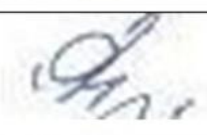
RD is the rating tolerance

TKSr* is the average current grade taking into account SIW and transfer points

K is the 1st thought lesson of passing coefficient

Ksro is the pass rate of the 1st SIW

14. Approval and revision

Date of approval by departments	Protocol № 1 01.09.2023	Morphophysiology head of department acting prof. Tanabaev B.D.	
	Protocol № 2 04.09.2023	Biology and biochemistry department prof. Esirkepov M.M.	
	Protocol № 1 05.09.2023	Phthisiopulmonology and radiology Kasaeva L.T.	
	Protocol № 2 05.09.2023	"Introduction to the clinic" department c.m.n.s. assistant professor Zhumadilova A.R.	
Date of approval by EPC	Protocol № 2 05.09.2023	Chairperson of EPC	