

AL-FARABI KAZAKH NATIONAL UNIVERSITY

Higher School of Medicine Department of Fundamental Medicine

METHODOLOGICAL INSTRUCTIONS TO PRACTICAL LESSONS

OACH1201 "The Human Body (Medical terminology include)" (4 credits)

Practical Lesson 1

Tissue of Human body I-II

Human tissue. The main classes of classification of adult tissue. Germ layers of human tissues. The structure and location of epithelial tissue, connective tissue, muscle tissue, nervous tissue. Epithelial tissue, connective tissue, muscle tissue, nerve tissue, three germinal germ layers. Three-dimensional shape of the structure, two-dimensional section of the tissue

Maximum mark – 10

- 1. Name the four primary classes into which all adult tissues are classified*
- 2. Name the three embryonic germ layers and some adult tissues derived from each*
- 3. Visualize the three-dimensional shape of a structure from a two-dimensional tissue section*
- 4. Describe the structure and locations of epithelial tissue, connective tissue, muscle tissue, nervous tissue*

Practical Lesson 2

Tissue of Human body III

Epithelial tissue. Types of epithelium, their differences from each other. The structure of the epidermis, dermis and subcutaneous tissue. Types of sweat glands, sebaceous and ceruminous glands, their structure. Skin functions. Histology of the hair and its follicle. Hair types. The most common forms of skin cancer.

Maximum mark – 10

- 1. list and classify types of epithelium, distinguish them from each other;*
- 2. describe the histological structure of the epidermis, dermis, and subcutaneous tissue;*
- 3. name two types of sweat glands, sebaceous and ceruminous glands and describe the structure;*
- 4. list the functions of the skin and relate them to its structure*
- 5. describe the histology of a hair and its follicle*
- 6. distinguish between three types of hair*
- 7. describe the three most common forms of skin cancer define them*

Practical lesson 3

Medical terminology. Organization of the body I.

The Language of Medicine. Anatomical Position. Anatomical Planes. Directional Terms. Major Body Regions (Axial and Appendicular Region). Body Cavities and Membranes. Organ Systems.

Maximum mark - 10

- 1. Explain why modern medical terminology is based on Greek and Latin.*

2. Break down medical terms into their main parts of the word.
3. What are some reasons why the literary meaning of a word does not always coincide with its definition?
4. What are some examples of singular and plural forms of some nouns and adjectives?
5. Name distinctions between the axial and appendicular regions of the body
6. -Identify subdivisions of the axial region and landmarks that divide and define them
7. -Name the abdomen's four quadrants and nine regions; their defining landmarks; and why this scheme is clinically useful
8. -Name the segments of the upper and lower limbs; how the anatomical meanings of arm and leg differ from the colloquial meanings
9. -Identify locations and contents of the cranial cavity, vertebral canal, thoracic cavity, and abdomino-pelvic cavity; the membranes that line them; and the main viscera contained in each
10. - Describe contents of the mediastinum and its relationship to the thoracic cavity as a whole
11. - Define the pericardium, name its two layers, the space and fluid between the layers, and its function
12. - Define the pleurae, name their two layers, the space and fluid between the layers, and their function
13. show willingness and desire to learn, to be an effective member of the team, to develop self-study skills and problem solving;
14. Name the two subdivisions of the abdominopelvic cavity and the skeletal landmark that divides them
15. - Define the peritoneum; its functions; its two layers and their relationship to the abdominal viscera; and the peritoneal fluid, Mesenteries and serosae
16. - Give Intrapertitoneal versus retroperitoneal organs examples of both, and how one would identify an organ as being intra- or retroperitoneal
17. - Define the names and locations of the posterior and anterior mesenteries
18. -Describe the serosa of an abdominopelvic organ and how it relates to the peritoneum
19. - Give examples of potential spaces and why they are so named

Practical Lesson 4

Organization of the body II. The integumentary system I-II

The Scope of Anatomy Physiology. Human Structure. Human Function. Structure and functions of the skin. Dermal circulation. Structure and functions of the Cutaneous Glands. Skin Disorders

Maximum mark - 10

1. - Define anatomy ,physiology relate them to each other
2. - List the levels of human structure from the most complex to the simplest
3. - Discuss the value of both reductionistic and holistic viewpoints to understanding human form and function
4. - Discuss the clinical significance of anatomical variation among humans
5. - State the characteristics that distinguish living organisms from nonliving objects
6. - Explain the importance of physiological variation among persons
7. - Define homeostasis and explain why this concept is central to physiology
8. - Define negative feedback, give an example of it, and explain its importance to homeostasis
9. - Define positive feedback and give examples of its beneficial and harmful effects
10. -

Define gradient, describe the variety of gradients in human physiology, and identify some forms of matter and energy that flow down gradients

11. list the functions of the skin and relate them to its structure

12. describe the three classes of burns and the priorities in burn treatment 13. describe the normal and pathological colors that the skin can have, and explain their causes

14. describe the common markings of the skin

15. name two types of sweat glands, and relate the structure and function of each 16.

describe the location, structure, and function of sebaceous and ceruminous glands 17.

Describe the role of dermal circulation

18. describe the three most common forms of skin cancer, define them

Practical lesson 5

CC 1

Maximum mark - 60

1. Demonstrate knowledge of the normal anatomy and physiology of the integumentary system (including histology)

Practical Lesson 6

Medical imaging I-II

X-ray imaging. Positron Emission Tomography. Computed Tomography. Magnetic Resonance Imaging. Ultrasonography

Maximum mark - 10

1. Describes the common principle of five modern medical imaging technique

2. -Identify five modern medical imaging techniques and how they are used 3.

- Discuss the uses and drawbacks of X-ray imaging

4. - Discuss the uses and drawbacks of PET

5. -Discuss the uses and drawbacks of Magnetic Resonance Imaging

6. -Discuss the uses and drawbacks of Computer Tomography

7. -Discuss the uses and drawbacks of Ultrasonography

Practical Lesson 7

Human Tissue IV-V

Connective Tissue. Tissues and Organs of the Skeletal System. Histology of Osseous Tissue

Maximum mark - 10

1. - name the tissues and organs that compose the skeletal system

2. - distinguish between bone as a tissue and as an organ

3. - list and describe the cells, fibers, and ground substance of bone tissue

4. - state the importance of each constituent of bone tissue

5. - compare the histology of the two types of bone tissue

6. - distinguish between the two types of bone marrow

7. - name and classify 10 types of connective tissue, describe their cellular components and matrix, and explain what distinguishes them from each other

8. - describe the properties that most connective tissues have in common

9. - discuss the types of cells found in connective tissue

10. - explain what the matrix of a connective tissue is and describe its components
11. - visually recognize each connective tissue type from specimens or photographs

Practical Lesson 8

The skeletal system I-III

-Bone Development. Physiology of Osseous Tissue. Bone Disorders

Maximum mark - 10

1. - Describe two mechanisms of bone formation
2. - Describe the processes by which minerals are added to and removed from bone tissue
3. - Describe the role of calcium in the skeletal system
4. - Name and describe bone diseases related to the bone development
5. - state several functions of the skeletal system;
6. - discuss the role of the bones in regulating blood calcium and phosphate levels
7. - name the main hormones that regulate bone physiology, and describe their effects
8. Name and describe bone diseases associated with bone development.

Practical lesson 9.

CC 2.

Maximum mark - 60

1. Demonstrate knowledge of normal anatomy and physiology of the skeletal system (including histology)

Practical lesson 10.

Practical Lesson 10

The skeletal system IV

Cranial Bones. Facial Bones

Maximum mark - 10

1. describe the development of the skull from infancy through childhood
2. - state the approximate number of bones in the adult body, explain why this number varies with age and from one person to another
3. - distinguish between cranial and facial bones

Practical lesson 11.

The skeletal system V

- General Features of the Vertebral Column

- General Structure of a Vertebra

- Intervertebral Discs

- Regional Characteristics of Vertebrae

-Thoracic Cage

Maximum mark - 10

1. - describe the general features of the vertebral column and those of a typical vertebra
2. - describe the structure of the intervertebral discs and their relationship to the vertebrae
3. - describe the special features of vertebrae in different regions of the vertebral column, and discuss the functional significance of the regional differences
4. -

describe the anatomy of the sternum and ribs and how the ribs articulate with the thoracic vertebrae

Practical Lesson 12

The skeletal system VI

The Shoulder Girdle. The Upper Limb

Maximum mark - 10

- 1. identify and describe the features of the clavicle, scapula, humerus, radius, ulna*
- 2. -identify and describe the features of bones of the wrist and hand*
- 3. - describe the general features of a long bone and a flat bone*
- 4. - Name and describe the types of fractures*
- 5. - Explain how a fracture is repaired*
- 6. - Discuss some clinical treatments for fractures*

Practical Lesson 13

The skeletal system VII

The Pelvic Girdle. The Lower Limb

Maximum mark - 10

- 1. identify and describe the features of the pelvic girdle*
- 2. compare the anatomy of the male and female pelvic girdles and explain the functional significance of the differences*
- 3. -identify and describe the features of femur, patella, tibia, fibula, and bones of the foot;*

Practical Lesson 14

Joints and Their Classification. Anatomy and physiology of individual joints

Recap: capstone case

Maximum mark - 10

- 1. explain what joints are, how they are named, and what functions they serve*
- 2. - name and describe the four major categories of joints*
- 3. - identify the anatomical components of a typical synovial joint;*
- 4. identify the main anatomical features of the jaw, shoulder joints, hip and knee joints, elbow and ankle joints*
- 5. Explain how mechanical advantage is related to the strength and speed of the bones that make up these joints, the movement of these joints*
- 6. discuss factors that determine the range of motion of these joints*
- 7. describe the main axis of rotation that the bone may have and relate it to the degree of freedom of the joint*
- 8. Demonstrate an understanding of the relationship between structure and function at the level of tissue, organs and organ systems and the basic physiological mechanisms for maintaining homeostasis, vital functions and their characteristics, taking into account age, gender and individual differences;*
- 9. Demonstrate teamwork, self-study and problem-solving skills;*

Practical lesson 15.

CC 3

Maximum mark - 50

1. *Demonstrate knowledge of the normal anatomy and physiology of the integument system (including histology)*

METHODICAL INSTRUCTIONS FOR THE LESSONS

The purpose is to generate knowledge of the typical normal structure of the human body, an understanding of the functions of organs and body systems based on the application of the principles of bioengineering, to form knowledge of medical terminology - anatomical, pharmacological, clinical.

Tasks:

1. describe and determine the general plan of the structure of the human body; 2. describe and localize the bones of the trunk, skull and limbs, taking into account age, gender and individual characteristics;
3. describe and localize the joints of the bones of the trunk, head and limbs, their structure and movements in them, taking into account age, gender and individual characteristics;
4. describe and localize muscles, places of their beginning and attachment, function taking into account age, gender and individual characteristics;
5. to find and show the anatomical structures of their musculoskeletal system on the image, model and preparation, medical imaging materials (taking into account age-related characteristics), call them, including in Latin;
6. find and palpate bone and muscle landmarks on a living person;
7. apply the basics of medical international terminology - anatomical, and clinical; 8. integrate knowledge of anatomy, physiology, histology and medical biophysics to explain the main phenomena of important medical value;
9. independently find, analyze and summarize educational and scientific information in relation to situations related to the course content;
10. work in a team, defend your point of view reasonably, consider the opinions of others, provide and receive feedback correctly using interpersonal and group communication skills

Work plan:

1. Check out the basic and additional literature, use textbooks to prepare topics for laboratory work, the Internet.
2. Use vivid examples from domestic and foreign experience to illustrate theoretical material.
3. Be prepared for classes and actively participate in group discussions and discussion of problems.
4. Use a variety of tools to study, discuss and visualize thoughts - drawing, mental maps, 3d modeling
5. Use teamwork on cases to develop teamwork, communication, problem solving, and self-study skills.

Rating for each topic:

Lesson	Title of the topic (lectures, practical classes, independent work of students)	Max Mark
1	<p>Practical Lesson 1 Tissue of Human body I-II Human tissue. The main classes of classification of adult tissue. Germ layers of human tissues. The structure and location of epithelial tissue, connective tissue, muscle tissue, nervous tissue. Epithelial tissue, connective tissue, muscle tissue, nerve tissue, three germinal germ layers. Three-dimensional shape of the structure, two-dimensional section of the tissue</p>	10
2	<p>Practical Lesson 2 Tissue of Human body III Epithelial tissue. Types of epithelium, their differences from each other. The structure of the epidermis, dermis and subcutaneous tissue. Types of sweat glands, sebaceous and ceruminous glands, their structure. Skin functions. Histology of the hair and its follicle. Hair types. The most common forms of skin cancer.</p>	10
3	<p>Practical Lesson 3 Medical terminology. Organization of the body I The Language of Medicine. Anatomical Position. Anatomical Planes. Directional Terms. Major Body Regions (Axial and Appendicular Region). Body Cavities and Membranes. Organ Systems.</p>	10
4	<p>Practical Lesson 4 Organization of the body II. The integumentary system I-II The Scope of Anatomy Physiology. Human Structure. Human Function. Structure and functions of the skin. Dermal circulation. Structure and functions of the Cutaneous Glands. Skin Disorders</p>	10
5	Practical Lesson 5 CC1	60
	MT1	100
6	<p>Practical Lesson 6 Medical imaging I-II X-ray imaging. Positron Emission Tomography. Computed Tomography. Magnetic Resonance Imaging. Ultrasonography</p>	10
7	<p>Practical Lesson 7 Human Tissue IV-V Connective Tissue. Tissues and Organs of the Skeletal System. Histology of Osseous Tissue</p>	10

8	Practical Lesson 8 The skeletal system I-III -Bone Development. Physiology of Osseous Tissue. Bone Disorders	10
9	Practical Lesson 9 CC 2	60

10	Practical Lesson 10 The skeletal system IV Cranial Bones. Facial Bones	10
MT 2		100
11	Practical Lesson 11 The skeletal system V General Features of the Vertebral Column. General Structure of a Vertebra. Intervertebral Discs. Regional Characteristics of Vertebrae. Thoracic Cage.	10
12	Practical Lesson 12 The skeletal system VI The Shoulder Girdle. The Upper Limb	10
13	Practical Lesson 13 The skeletal system VII The Pelvic Girdle. The Lower Limb	10
14	Practical Lesson 14 Joints and Their Classification. Anatomy and physiology of individual joints Recap: capstone case	10
15	Practical Lesson 15 CC 3	50
	Independent work of the student with the teacher – presentation of Independent work of the student#1	10
MT 3		100

A FEW TIPS FOR TEAMWORK AND TRAINING ¹

The medical profession involves working in multidisciplinary teams, so these skills are identified as key in the competence of the doctor and other health professionals in all countries.

Therefore, group work is included as a mandatory component in the practical classes of our course. In addition, it is designed to provide a safe environment in which you can try out new ideas and practices and acquire appropriate group skills. These can be tasks to

perform in pairs, threes, or small groups of 4-6 people (working with cases, tasks of the SRS, etc.).

When you are working on a project or task as a team, you can use the different strengths of the team members to create a broader and better project or task than if you were working on your own.

Learning in groups means that you need to share your knowledge and ideas with other students. There are two benefits to this: you need to think carefully about your own ideas in order to explain them to others, and you expand your own understanding by taking into account the knowledge and ideas of others.

Interpersonal communication and discussion

¹ adapted from UNSW Guide to Group Work <https://student.unsw.edu.au/groupwork>)

Take some time to chat and get to know each of your bandmates. The more familiar you are with each other and the more comfortable you are with each other, the more effective you will be able to work together.

Create a culture of mutual respect in your group. You probably had little or no choice when forming study groups and small teams in the classroom. Therefore, you will have to learn to overcome the differences that occur between people. In addition, you will not be able to choose employees in the workplace, and at work you will experience significantly more pressure to be a productive member of the team.

For effective communication and discussion in the team: you should not hesitate to Express their opinions and it is important to feel that those views will be heard; it is important to feel that all group members are contributing to the solution of tasks adhere to agreed rules and plans and doing the work qualitatively and in time; it is important to know that the feelings of each are considered members of the team, but the goals and objectives of the group are not put at risk in favor of the whims or desires of individual members;

Try to Express your opinion and listen to others. There is nothing wrong with disagreeing with your classmates, no matter how confident they are in what they are saying. When you disagree, be constructive and focus on the problem, not the person. Similarly, when someone disagrees with you, respect what they say and the risk they took in expressing their opinion. Try to find a way that everyone can agree on, and it's not necessarily the opinion of the loudest or smartest team member.

Here are some examples of constructive and destructive group behavior²

Constructive group behavior - a person who:

***What unites us** is an interest in the views and opinions of others and a willingness to adapt to the interests of others*

***Clarifies**-clearly identifies issues for the group by listening, summarizing, and focusing the discussion*

***Inspires**-encourages the group, encourages participation and progress*

***Harmonizes**-encourages group unity and teamwork. For example, it uses humor as a release after difficult situations.*

***Takes a risk**-a willingness to take risks to the detriment of yourself for the success of a group or project*

***Manages the process-organizes** a group on process issues: for example, a plan, schedule, timeline, topic, solution methods, and information usage*

Destructive group behavior:

***Dominance**-takes a lot of time expressing your opinions and views. Tries to take control by*

capturing energy, time, and so on

Fussiness-hurries the group to move quickly before the task is completed. Impatient to listen to other opinions and work together.

Suspension-removes itself from the discussion or decision-making. Opt-out **Ignoring**-does not respect or belittle the ideas and suggestions of the team or individuals. The extreme manifestation of ignoring is an insult in the form of ridicule. **Distraction** – excessive chatter; tells stories and leads groups away from the goal **Blocking** – stopping the progress of the group by rejecting all ideas and suggestions. "It won't work because...»

Effective group work does not occur by itself. A conscious and planned effort is

² adapted from Brunt (1993):

<https://tle.wisc.edu/solutions/engagement/constructive-and-destructive-groupbehaviors>

needed, and since there are many people involved, you can't rely on memory; you have to make notes. **Following these steps** will help you and your group work together effectively. 1. Define clear goals. At each stage, you should try to coordinate the tasks. They include a schedule for completing the project, as well as more specific tasks (such as “agree on an approach to completing the task by Friday”). Each meeting or discussion should also start with a specific goal (for example, making a list of tasks to complete). Tasks should be divided into smaller parts and scheduled. Sometimes one part can't be started until the other part is finished, so you may need to draw a simple temporary map.

* discuss the resources you have and the ones you will need to find.

* formulate the desired result.

* think about how you will know when you have done it well enough?

* divide tasks between the team and

* set deadlines for sub-tasks and times for future meetings.

2. Set the basic rules. Discussions can become messy and can prevent more modest group members from participating if you don't have rules to encourage discussion, resolve differences, and make a decision without repetition. Set the rules from the beginning and change them as necessary. For example: an interesting rule that one group developed is that anyone who missed a meeting will buy the rest of the group coffee at a coffee shop. No one ever missed a meeting after that.

3. Communicate effectively. Make sure that you communicate regularly with the group members. Try to be clear and positive in what you say without repeating yourself. 4. Find a consensus. People work together most effectively when they are working towards a goal they have agreed to. Make sure everyone has their own opinion, even if you need time to get more participants to say something. Make sure you listen to everyone's ideas and then try to come to an agreement that everyone shares and everyone has contributed. 5. Define roles. Divide the work that needs to be done into separate tasks that you can use the strengths of individual team members to accomplish. Define roles for both your tasks and meetings / discussions (for example, Arani is responsible for summarizing the discussions, Joseph is responsible for everyone's opinions and decisions, and so on). Examples of assigning roles and functions: Facilitator or leader (depending on the context) - to clarify the goals of the meeting and to summarize the discussions and decisions; ensures that the meeting takes place, continues, and the basic rules are followed.

Secretary-keep a record of ideas discussed and decisions made, and who does what. Time Manager - to make sure that you discuss everything you need in the allotted time for the meeting.

Controller-make sure that the work is completed by the agreed time, and solve problems if they are not completed.

A process observer is someone who monitors the process, not the content, and can bring issues to the attention of the team. In this role, it is important to be positive, not judgmental. The editor is to bring all the materials together, to identify gaps or overlap and to ensure consistency in the final presentation.

6. Clarify. When a decision is made, it should be explained in such a way that it is absolutely clear to everyone what was decided, including the timing.

7. Keep good records. Always summarize your discussions and document your decisions and publish them (for example, in a whatsapp chat) so that you can always return to them. This includes lists of those who agreed to do what.

8. Stick to the plan. If you agreed to do something as part of the plan, do it. Your group relies on you to do what you agreed to do and in the way you agreed to do it, not in the way you would like to do it. If you think the plan should be revised, discuss it.

9. Keep track of progress and adhere to deadlines. Discuss the progress together in relation to your schedule and deadlines. Make sure that you personally meet the deadlines so that you don't let your group down.

Co-writing a document / report

Joint writing is one of the most difficult parts of group work. There are many ways to do this, and your group must decide how to divide the work of writing, composing, editing, and finalizing your work. Writing as a group (six people huddle around the keyboard) is a recipe for conflict and lack of progress. The other extreme - where one person takes all the responsibility and ends up doing most of the work - is also unproductive and contributes to conflicts.

There are three possible approaches to working on a common document: 1-one person writes most of it-this means that a narrow range of ideas is used, and the rest of the team does not learn (and will not learn) to write reports and documents. 2-each person writes one section - then it is difficult to make a single consistent report, and you will not learn about the rest except your own section.

3-co-writing. This is the most productive way to solve group tasks and provides the greatest benefit from working together. For example: each section has a writer and at least one reviewer, and each team member is the author of a section and the reviewer of another section.

The final product must be reviewed by all team members before being finalized by the editor. Alternatively, you can have one author with others editing, adding, and checking, and someone else puts the finished report in order.

Try to divide the writing of source documents into tasks and solve them individually or in pairs. After the first drafts of the sections are written, send out all the components and read them. You will probably need to get together to discuss how to combine them so that they fit together. Any participants who were not involved in preparing the drafts can do some of this work. Then edit, improve, and Polish the draft. It is convenient to work together on documents in Google documents.

When preparing a report/final document, regularly check the following:

- is the project goal clear from the report?
- are the Conclusions or recommendations clear?
- do the conclusions follow from the main part of the report?

- do the sections fit together well?
- does the report meet the goals (and evaluation criteria)?
- are the necessary components sufficiently covered?

Whatever method you use, all team members should agree on the process and how they are going to maximize the collaborative approach to writing the final document. **Monitoring the effectiveness of the group and overcoming challenges** Attached below is a checklist that includes a list of common problems encountered in group work. Use it regularly to identify problems before they get out of control. If there are serious problems and tensions, use it to identify where something might go wrong. First answer each question about yourself, then answer it about the group as a whole. Then gather a group and discuss where you think problems might occur, and think about how you can overcome these problems.

Each participant must complete this checklist. You should perform this exercise regularly to track and improve the performance of your team.

1. Answer each question about your work in the team.
2. Answer each question about the rest of the team.
3. Gather your entire team and discuss where you think any problems are occurring.
4. Discuss what you are going to do to overcome these problems.

Checklist for self-assessment of the team's performance.

You	I personally	Group as a whole	Comments
Effectively clarify your tasks and tasks at each stage?			
Evaluating the progress of work?			
We clarify and document everything that the group has decided?			
We clarify who will do what and how?			
Making it clear by what date each task should be completed?			
Setting up rules for managing meetings?			
Follow the agreed rules?			
Listening to each other?			
Let some team members dominate?			
Allow some team members to refuse/recuse themselves?			

Sacrificing personal desires for the team's success?			
Recognize the feelings of other team members?			
Making an equal contribution to the team's progress?			
We adhere to the agreed rules for writing and naming files?			

Points and rating

Group tasks and tasks mean that grades are assigned to the entire group based on the results of the entire group. It should be in everyone's interest to ensure the effective contribution of all team members and to ensure the high quality of the task performed. Sometimes a peer-to-peer or peer-to-peer evaluation form and a team-work evaluation form will be used to evaluate the relative contribution of each person to the group process. This can be used to soften ratings for a task, or just as a way to give feedback about your work in the group. The following are examples of criteria for evaluation of student team learning.

№	Student evaluation criteria in practical classes
1	<i>Preparing for classes:</i> Examines information focused on the case and issues of concern, uses various sources, and supports claims with appropriate links
2	<i>Group skills and professional attitude:</i> Demonstrates excellent attendance, reliability, and responsibility Takes the initiative, actively participates in the discussion, helps group members, willingly takes tasks
3	<i>Communication skills:</i> Actively listens, shows emotions according to the situation, is receptive to non-verbal and emotional signals, shows respect and correctness towards others, helps resolve misunderstandings and conflicts
4	<i>Skills for providing feedback:</i> Demonstrates a high level of self-analysis, critically evaluates himself and colleagues, provides constructive and objective feedback in a friendly manner, and accepts feedback without opposition
5	<i>Critical thinking and effective learning skills:</i> Effectively participates in generating hypotheses and formulating problematic questions, provides relevant examples from life, skillfully applies knowledge to the problem/case under consideration, critically evaluates information, makes conclusions, explains and justifies statements, draws diagrams and drawings, demonstrates constant interest in the material being studied

6	<p><i>Theoretical knowledge and skills on the topic of the lesson:</i></p> <p>All key aspects are presented logically; accuracy, relevance of answers to questions without redundancy; integration of theoretical questions; use of relevant examples; correct use of professional terminology</p>
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Basic literature:

1. Saladin, Kenneth S.: Anatomy & Physiology. The Unity of Form and Function (2016, McGraw-Hill Education) на англ. яз.
2. Costanzo, Linda S.: BRS Physiology. Board Review Series. 7 edition. - Wolters Kluwer Health, 2018. - 307p. - ISBN 1496367693, 9781496367693
3. Leslie P. Gartner: Color Atlas and Text of Histology. - 7th Edition. - Wolters Kluwer, 2017. ISBN 1496346734, 9781496346735
4. Russell K. Hobbie, Bradley J. Roth: Intermediate Physics for Medicine and Biology. - Springer, 2015. - ISBN 3319126822, 9783319126821
5. Andersson D, Medical Terminology: The Best and Most Effective Way to Memorize, Pronounce and Understand Medical Terms: Second Edition, ISBN-13 : 978-1519066626, 2016

Additional literature:

6. Standring, Susan: Gray's Anatomy: The Anatomical Basis of Clinical Practice. - 41 Elsevier Limited, 2016
7. Elaine N. Marieb, Lori A. Smith: Human Anatomy & Physiology Laboratory Manual, Main Version. - 11 edition. - Pearson Education, 2015. - ISBN 9780133999143
8. Scanlon V. C, Essentials of Anatomy and Physiology 8th Edition, F.A. Davis Company, 2018
9. Victor P. Eroschenko, Atlas of Histology with Functional Correlations 13th Edition, LWW, 2017
10. William Bialek: Biophysics: Searching for Principles. - Princeton University Press, 2012. - ISBN 0691138915, 9780691138916

Online resources

1. <https://app.lecturio.com/#/>
2. <https://3d4medical.com/>
3. https://www.youtube.com/channel/UCc_I2c2bUtO0p4DVeo6-Kxg 4. <https://sites.google.com/a/umich.edu/bluelink/curricula/anatomy-403?authuser=0> 5. <https://histologyknmu.wixsite.com/info/gistologicheskie-sajty>
6. <https://histologyknmu.wixsite.com/info/gistologicheskie-sajty>
7. <http://www.histology-world.com/contents/contents.htm>
8. <http://www.histologyguide.com/slidebox/02-epithelium.html>
9. <https://histology.medicine.umich.edu/resources>
10. <https://web.duke.edu/histology/>
11. <http://virtuallides.med.umich.edu/Histology/view.apml?listview=1&>

Head of Department

Candidate of medical Sciences Sarsenova L.K.

**The Chairman of the methodical Bureau
of the faculty**

Candidate of medical Sciences Ualiyeva A. E.