


<p>             ОҢТҮСТІК ҚАЗАҚСТАН  <b>MEDISINA</b>  <b>AKADEMIASY</b>              «Оңтүстік Қазақстан медицина академиясы» АҚ           </p>		<p>              SOUTH KAZAKHSTAN  <b>MEDICAL</b>  <b>ACADEMY</b>              АО «Южно-Казахстанская медицинская академия»           </p>
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## METHODOLOGICAL GUIDELINES FOR INDEPENDENT WORK OF STUDENTS

Discipline: "Normal digestive and endocrine systems"

Discipline code: NDES 2208


Name and code of the EP: 6B10115 - "Medicine"

Amount of study hours/credits: 30/1

Course and semester of study: 2/3

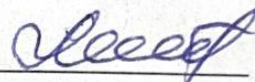
Independent work: 3/17


Shymkent, 2024

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Methodological guidelines for independent work of students were developed in accordance with the working curriculum of the discipline (syllabus) "Normal digestive and endocrine systems" and discussed at a meeting of the department of "Topographic anatomy and histology"

Protocol No. 1 from "03" 09 2024

Head of the department, c.m.s., acting professor  Murzanova D.A.

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## Lesson No. 1

### 1.Topic: Large and small salivary glands.

### 2. Purpose:

Sources and course of development of large and small salivary glands.

### 3. Tasks

- General outline of the structure of large and small salivary glands.
- Characteristics of salivary glands, general information

### 4.Form of execution/evaluation: checklist for SIW assessment

### 5. Performance criteria: work in small groups, protection of the presentation of micro-products, microphotographs, compilation of a glossary.

Form of control	Evaluation	Evaluation criteria
Completing test tasks Completing test tasks	Perfectly Matches the scores: 95-100; 90-94	90-100% correct answers
	Well Corresponds to the points: 85-89; 80-84; 75-79; 70-74	75-89% correct answers
	Satisfactory Corresponds to the points: 65-69;60-64;50-54	50-74% correct answers
	Unsatisfactorily Corresponds to scores 0-49	Less than 50% correct answers

### Preparation of the presentation


Form of control	Evaluation	Evaluation criteria
Preparation and protection of the presentation	Great Corresponds to the points:95-100; 90-94	The presentation was made independently, at the appointed time, with a volume of at least 15-20 slides. At least 5 literary sources have been used. The slides are informative and concise. During the defense, the author demonstrates in-depth knowledge of the topic. Does not make mistakes when answering questions during the discussion.
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### Compiling a glossary

Form of control	Evaluation	Evaluation criteria
Compiling a glossary	Great Corresponds to the points:95-100; 90-94	The student compiled a glossary on the topic at the appointed time, independently, accurately, without errors, with a volume of at least 20 words, correctly formulated the concepts.
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### Solving situational task

Form of control	Evaluation	Evaluation criteria
Solving situational problems	Great Corresponds to the points:95-100; 90-94	He actively participated in the work, showed original thinking, showed deep knowledge of the material, and used scientific achievements of other disciplines in the discussion.
	Well Corresponds to the points: 85-89; 80-84; 75-79; 70-74	He actively participated in the work, showed knowledge of the material, admitted unprincipled inaccuracies or errors corrected by the student himself.
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**6. Deadlines:** according to the schedule of the schedule

## **7. Literature:**

### **Main literature**

1. Inderbir Singh. Textbook of Human Histology. With Color Atlas and Practical Guide/8th Edition. Jaypee Brothers Medical Publishers .2016.-302 p. Перевод Гистология человека
2. Dudek Ronald W. Embryology / Ronald W. Dudek. - 5th ed. - [s. l.] : Wolters Kluwer, 2014. - 158 p. Перевод заглавия: Эмбриология
3. Gartner Leslie P. Cell Biology and Histology / Leslie P. Gartner. - 8th ed. - [s. l.] : Wolters Kluwer, 2019. - 436 p. - (BRS. Board Review Series) Перевод заглавия: Клеточная биология и гистология

### **Additional literature**

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### **Electronic publications**

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Cytology and histology : Educational-methodical complex. . - Kokshetau: KGU, 2017. - 101 p. <http://rmebrk.kz/>
6. Бородулина, О.В. Цитология и гистология – Cytology and histology : Практикум. / Костанайский гос. педагогический университет им. У. Султангазина. - Костанай: КГПУ им. У. Султангазина, 2020. - 100 с. - <http://rmebrk.kz/>


## **8. Control:**

1. Characteristics of salivary glands, general information
2. Saliva and its functions
3. Micelles of saliva, mechanisms of saliva formation
4. Functions of mixed saliva, saliva enzymes
5. The role of saliva in the formation of biofilm (biofilm) on the tissues of the oral cavity
6. Microcrystallization of mixed saliva
7. Crystallographic examination of mixed saliva.

## **Lesson No. 2**

### **1. Topic: Age-related features of pancreatic histology**

### **2. Purpose:**

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- Sources and course of pancreatic development in newborns and young children.

### 3. Tasks

- Sources and course of pancreatic development in newborns and young children
- Features of the structure of the pancreas in newborns and young children.

#### 4. Form of execution/evaluation: checklist for SIW assessment


#### 5. Performance criteria: work in small groups, protection of the presentation of micro-products, microphotographs, compilation of a glossary.

Form of control	Evaluation	Evaluation criteria
Completing test tasks Completing test tasks	Perfectly Matches the scores: 95-100; 90-94	90-100% correct answers
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#### Compiling a glossary

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Form of control	Evaluation	Evaluation criteria
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### Solving situational task

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**6. Deadlines:** according to the schedule of the schedule

**7. Literature:**

**Main literature**



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#### **8 Control:**

- Pancreas.
- Features of the structure of the exocrine and endocrine parts
- Age-related features

### **Lesson No. 3**

#### **1. Topic: APUD system**

#### **2. Purpose:**


- \* Sources and course of development of the diffuse endocrine system (APUD system, paracrine system, chromaffin system, gastroenteropancreatic system)

#### **3. Tasks**

- Hormones and their importance in the body.
- The concept of target cells and hormone receptors.
- The structure and significance of the diffuse endocrine system.

#### **4. Form of execution/evaluation:** checklist for SIW assessment



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**5. Performance criteria:** work in small groups, protection of the presentation of micro-products, microphotographs, compilation of a glossary.


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#### Preparation of the presentation

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#### Compiling a glossary

Form of control	Evaluation	Evaluation criteria

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Compiling a glossary	<p>Great</p> <p>Corresponds to the points:95-100; 90-94</p>	The student compiled a glossary on the topic at the appointed time, independently, accurately, without errors, with a volume of at least 20 words, correctly formulated the concepts.
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#### Solving situational task

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**6. Deadlines:** according to the schedule of the schedule

**7. Literature:**

**Main literature**

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#### **8. Control:**

1. The diffuse (scattered) arrangement of its cells, in contrast to the secreting cells of the endocrine glands, collected in one place as part of the gland
2. Production of control substances in the form of biogenic amines and/or peptide hormones.
3. Other hormone-producing tissues and scattered endocrine cells
4. Gastroenteropancreatic endocrine system.