



International School of Medicine  
International University of Kyrgyzstan

Система менеджмента качества  
Educational-Methodological Complex of Discipline  
“Histology, cytology and embryology”

Main Educational Programm 560001 «General Medicine» (5 years) ISM IUK MYK

Ministry of Education and Science of the Kyrgyz Republic  
International University of Kyrgyzstan

International School of Medicine  
Department of “Macro and microanatomy”



“APPROVED”  
Vice-rector for academic and  
administrative affairs  
prof. Musa Kyzy Alina

“20” 2021

**EDUCATIONAL-METHODOLOGICAL COMPLEX OF DISCIPLINE**

**“Histology, cytology and embryology”**

main educational program

specialty of **General Medicine (for foreign citizens)**

graduate qualification: **general practitioner**

**Bishkek 2021**



International School of Medicine  
International University of Kyrgyzstan

Система менеджмента качества  
Educational-Methodological Complex of Discipline  
"Histology, cytology and embryology"

Main Educational Programm 560001 «General Medicine» (5 years) ISM IUK MYK

Ministry of Education and Science of the Kyrgyz Republic  
International University of Kyrgyzstan

International School of Medicine  
Department of "Macro and microanatomy"

**"APPROVED"**  
Vice-rector for academic and  
administrative affairs  
prof. Musa kyzy Alina

"20" 09 2021

## THE WORKING PROGRAM OF THE DISCIPLINE

### "Histology, cytology and embryology"

main educational program

specialty of General Medicine (for foreign citizens)

graduate qualification: general practitioner

Full-time education

Course	1,2,3
Semester	1,2,4,5
Credit / Exam (semester)	1,2
Total credits for curriculum	7
Total curriculum hours	210

Work program developer:  
M.D., associate prof. Slynko T.N.

Reviewed and approved at a meeting of  
the department macro and microanatomy  
Minutes No. 1 "15" 09 2021  
Head of the Department,

Bishkek 2021



International School of Medicine  
International University of Kyrgyzstan

Система менеджмента качества  
Educational-Methodological Complex of Discipline  
"Histology, cytology and embryology"

Main Educational Program 560001 «General Medicine» (5 years) ISM IUK MYK

The work program is agreed with the academic and methodological sector of the ISM AMD,

Chairman of the AMD

Оторова А.А.  
(Full name)

[Signature]  
(signature)

«20» 09 2021

The work program is agreed with the head of the main educational program in the direction / specialty \_\_\_\_\_

(code, name of the specialty/direction)

Head of the MEP

Азимов Б.Р.  
(Full name)

[Signature]  
(signature)

«20» 09 2021

External review given by

Kyrgyz-Russian Slavic University  
an. prof Gubonov B.P.

(place of work, position, academic degree, academic title, full name)

«17» 09 2021 (the review is attached)

The work program is agreed with the ISM "IUK" Quality and Monitoring Department

Head of the QMD /AMD

Shalilova M.V.  
(Full name)

[Signature]  
(signature)

«20» 09 2021



## CONTENT

<b>1. The working program of the academic discipline</b>	<b>5</b>
1.1. Explanatory note	5
1.2. Recommended educational technologies	9
1.3. The scope of the discipline and types of educational work	10
1.4. Discipline structure	11
1.4.1. Thematic plan for the study of the discipline (by semester)	11
1.4.2. Educational and methodological support of student independent work	21
1.4.3. Evaluation Assessment Tools	24
1.4.4. Course Policy and Assessment Criteria	54
1.4.5. Educational-methodical and informational support of the discipline	56
1.4.6. Material and technical support of discipline	57
1.4.7. Student research work	58
<b>2. Teaching materials</b>	<b>58</b>
2.1. Lecture notes	58
2.2. Development of practical / seminar / laboratory classes	133
<b>3. Methodological recommendations / instructions for students</b>	<b>135</b>
3.1. Methodical recommendations for students on the study of the discipline	135
3.2. Methodical recommendations for the implementation of practical/seminar classes, laboratory work	135
3.3. Methodical recommendations for the implementation of independent work	136
3.4. Methodical instructions for the implementation of abstracts, reports, essays	136
3.5. Guidelines for preparing for the final certification	138
3.6. Methodical recommendations for the student research work	138



## 1. The work program of the academic discipline

### 1.1. Explanatory note

- **Mission of the ISM IUK** – *training of competent specialists in the field of medicine, consistent with international standards and traditions of medical ethics, ready for continuous professional growth using modern achievements of science and practice, to solve public health problems.*

#### - **Academic discipline annotation**

This discipline is studied by students of the direction of "General Medicine" and is included in the mandatory scope of the studied disciplines of the State Educational Standard of Higher Professional Education. Histology as well as anatomy, refers to morphological sciences, the main task of which is to study the structures of living systems. Unlike anatomy, histology studies the structure of living matter at the microscopic and electron microscopic level. In doing so, the study of the structure of various structural elements is currently being carried out considering their functions. This approach to the study of the structures of living matter is called histophysiology, and histology is often referred to as histophysiology. In addition, in the study living matter at the cellular, tissue and organ levels, not only the shape, size and location of the structures of interest are considered, but the composition of substances forming these structures is often determined by the method of cytochemistry and histochemistry. Finally, the studied structures are usually considered their development, both in the intrauterine (embryonic) period and during postembryonic ontogenesis. That is what makes it necessary to include embryology in the course of histology.

#### - **Purpose and objectives of the discipline**

##### **The purpose of discipline**

To teach students to apply in the study of subsequent basic and clinical disciplines knowledge of the patterns of development of microscopic and submicroscopic organization of human cells, tissues and organs, both normally and in pathology.

- Be able to navigate the results of histological and cytological studies for the diagnosis, prognosis and treatment of patients with diseases of various organs and systems of the body.

##### **Discipline objectives:**

1. the formation of a natural - scientific worldview among students on the basis of general theoretical knowledge in the field of histology, cytology and embryology, which are fundamental for scientific and practical medicine;
2. mastering the knowledge of the general patterns inherent in the cellular and tissue level of the organization of living matter; principles of living matter development, histogenesis and organogenesis, peculiarities of human embryo development; thin (microscopic) level of structure of human body structures;