

APPROVED EMD decision

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Protocol No.

Chairman of the EMC, Vice-Rector, candidate of pedagogical sciences, associate professor Apezova D.U.

# SYLLABUS by discipline

# E.3.9.3. MEDICAL PARASITOLOGY

For students of the educational program, higher professional education in the specialty 560001

"General Medicine" (5-year education) in the specialty "Doctor"

Type of study work	Total hours		
course	3		
Semester	5		
Number of weeks	18		
Credits	3		
The total complexity of the discipline	90		
Classroom/practical studies (PS)	54		
Student Independent Work (SIW)	36		
Forms of control			
current control	Testing, oral questioning, written test		
Frontier control	Testing		
Midterm	Testing		
Final control	exam		
Semester rating by discipline:	Point-rating system		

Информация о преподавателе учебной дисциплины

Full Name	Morkovkina Angela Borisovna		
Post	teacher		
Academic degree	Candidate of biological sciences		
Academic title	-		
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Consultation hours	13.00-14.00		

# Characteristics of the academic discipline

The purpose of studying the discipline: The course of study within the framework of mastering the discipline "Medical parasitology" involves mastering the system of theoretical knowledge and the formation of appropriate skills, skills and possessions in the field of "parasitology" necessary in the professional activity of an infectious disease doctor. Students study the history of parasitology, the main stages of the formation of this science; safety regulations and work in microbiological laboratories, with reagents and devices, laboratory animals; classification, morphology and physiology of parasites, their biological and pathogenic properties, impact on public health; features of the formation of the processes of symbiosis of the human body with parasites, the role of parasites in the development of parasitic diseases;

structure and functions of the immune system in adults and adolescents, its age characteristics, mechanisms of development and functioning, basic methods of immunodiagnostics, methods of evaluation immune status and indications for the use of immunotropic therapy; the role of individual parasites in the etiology and pathogenesis of major human infectious diseases. By the end of the course, students can use the basic methods of parasitological diagnostics - microscopic, serological, biological, allergic in practical work; use the knowledge gained to determine the tactics of antiparasitic therapy; use the knowledge gained to determine the tactics of antiparasitic therapy; apply the principles of emergency prevention and detoxification therapy of patients; to analyze the effect of drugs – antiparasitic and immunobiological drugs – on the totality of their properties and the possibility of their use for the therapeutic treatment of patients of different ages.

Demonstrate the ability and readiness to carry out measures for sanitary and epidemiological support of medical organizations aimed at creating a safe hospital environment, ensuring the quality and safety of medical care and preventing cases of infectious (parasitic) diseases, readiness to implement a set of measures aimed at preserving and strengthening health and including prevention of the occurrence and (or) the spread of infectious diseases, their early diagnosis, identification of the causes and conditions of their occurrence and development, and also aimed at eliminating the harmful effects of environmental factors on human health. Development of students' common vision of the structure, concepts, methods and techniques of evidence-based medicine. The development of the thesaurus and operational capabilities to a level where their interaction will allow quite simply to formalize the tasks arising in the course of practical work and solve them. To show the simplicity and consistency of the main statistical criteria involved in evidencebased medicine in order to remove the frequently occurring potential barrier of fundamental unknowability for a particular individual, statistical means of solving medical problems. Teaching student's knowledge, skills and practical skills in DM, with the help of which it is possible to independently master the technology of assessing the quality of medical information and its applicability in clinical practice. Development of the ability to draw up a solution plan and implement it using the selected methods. Development of the ability of analysis and practical interpretation of the results obtained. Development of the ability to use various kinds of reference materials and manuals necessary for solving practical problems.

#### **Discipline Prerequisites:**

- Normal anatomy
- Basic pharmacology
- Clinical pharmacology
- General surgery
- Internal diseases
- Infectious diseases

# Postrequisites of the discipline:

- Normal anatomy
- Basic pharmacology
- Clinical pharmacology
- General surgery
- Internal diseases
- Infectious diseases

#### Learning outcomes of the discipline according to the RO GPP

The study of the subject of endocrinology will contribute to the achievement of RE GEP:

**RE-3-** to analyze various causes (genetic, intrauterine, metabolic, toxic, microbiological, autoimmune, neoplastic, degenerative and traumatic) of painful and borderline conditions in the body. The achievement of Re-3 is realized by the acquisition of competencies by the graduate, i.e. his ability to apply knowledge, skills and personal qualities in accordance with the tasks of professional activity - PC-10.

**PC-10-** is capable and ready to carry out preventive measures to prevent infectious, parasitic and non-communicable diseases.

#### **Content of the discipline**

NºNº	Name of topics				
1.	Private parasitology				
2.	Subject of general parasitology				
3.	Medical Parasitology				

4.	Medical protozoology				
5.	Medical helminthology				
6.	Protozoal diseases				
7.	Intestinal protozoa				
8.	Malaria				
9.	Helminthiasis				
10.	Classification of helminthiasis				
11.	Basics of helminthiasis chemotherapy				
12.	Laboratory diagnostics of parasitic diseases				
13.	Methods of blood testing				
14.	Methods of fecal examination				
15.	Methods of urine examination				

# List of main and additional literature:

#### **Basic literature:**

- 1. Infectious diseases: national manual / Assoc. med. about quality; G. K. Alikeeva et al.; chief editors: N.
- D. Yushchuk, Yu. Ya. Vengerov. Moscow: GEOTAR-Media, 2019.
- 2. Infectious diseases: textbook / E. P. Shuvalova, E. S. Belozerov, T. V. Belyaeva E. I. Zmushko. 7th ed., ispr. and add. St. Petersburg: SpetsLit, 2015.

#### **Additional literature:**

- 1. Practice.Leslie G. Portney, 2020
- 2. Medical parasitology and parasitic diseases: [study. manual for higher Prof. Education] / [A. B. Khojayan,
- A. K. Mikhailenko, N. N. Fedorenko, etc.]; edited by A. B. Khojayan et al. Moscow: GEOTAR-Media, 2014.
- 3. Medical parasitology and parasitic diseases: [studies. manual for higher Prof. education] / edited by A.
- B. Khojayan [et al.]. Moscow: GEOTAR Media, 2014.

#### **Internet resources:**

- 1. https://drive.google.com/drive/u/2/folders/1iUdsijeLnQupD7\_BJaGlhA--D1mZA2yU
- 2. http://marc.rsmu.ru:8020/marcweb2/Default.asp.

# Monitoring and evaluation of learning outcomes The content of the rating system for assessing student performance

The rating assessment of students' knowledge in each academic discipline, regardless of its total labor intensity, is determined on a 100 (one hundred) - point scale and includes current, boundary, intermediate and final control.

The distribution of rating scores between types of control is established in the following ratio (according to the table of the score-rating system of assessments):

	Form of control								
current (CC)*	boundary control (BC)**	mid-term exams (MC)***	Final /exam (FE)	Discipline Rating (RD)					
0-100 points	0-100 points	0-100 points	0-100 points	0-100 points, with the translation of points into a letter designation					

#### Note:

\* TK(middle) =  $\frac{\sum_{1}^{n} \times point}{\sum_{1}^{n}}$ , where n is the number of types of classroom and extracurricular work of students in the discipline;

\*\*PK (middle) =  $\frac{\sum_{1}^{n} credit \times point}{\sum_{1}^{n} credits}$ , where n is the number of modules (credits) in the discipline;

\*\*\* $\Pi$ K (middle) =  $\frac{\sum_{1}^{n} \times point}{\sum_{1}^{n}}$ , where n is the number of intermediate controls (2 controls per semester: in the middle and at the end of the semester) by discipline;

\*\*\*\*ИК – examination conducted at the end of the study of the discipline

;

\*\*\*\*\* $P \Pi = \frac{TKcp + PKcp + \Pi Kcp + UK}{4}$ , the final rating of the results of all types of control at the end of the discipline;

GPA=  $\frac{\sum_{1}^{n} \times 6a\pi\pi}{\sum_{1}^{n}}$  where, n is the number of disciplines in the semester (for the past period of study).

A student who has not passed the current, boundary and intermediate controls to the final control (exam) is not allowed.

**The current control** is carried out during the period of classroom and independent work of the student on time according to the schedule, at the end of the study of the discipline, the average score of the current control (CC) is calculated. Forms of current control can be:

- testing (written or computerized);
- performance of individual homework assignments, abstracts and essays;
- student's work in practical (seminar) classes;
- various types of colloquia (oral, written, combined, express, etc.);
- control of performance and verification of reporting on laboratory work;
- visiting lectures and practical (seminar, laboratory) classes;
- Incentive rating (up to 10 points).

Other forms of current monitoring of results are also possible, which are determined by the teachers of the department and recorded in the work program of the discipline.

**The frontier control** is carried out in order to determine the results of the student's development of one credit (module) as a whole. *Frontier control* should be carried out only in writing, at the end of the study of the discipline, the average score of boundary control (BC) is calculated. As forms *of frontier control* of the training module, you can use:

- testing (including computer testing);
- interview with written fixation of students' answers;
- test

Other forms of intermediate control of results are also possible.

Intermediate control (mid-term exams) is carried out in order to check the completeness of knowledge and skills in the material in the middle and end of the semester (2 times per semester) of studying the discipline, by the end of the study of the discipline, the average score of intermediate control (PCsr) is calculated, forms of intermediate control (mid-term exams) can be:

- testing (including computer testing);
- interview with written fixation of students' answers;
- test

Other forms of intermediate control of results are also possible.

**The final control** is carried out during the session, by conducting an exam, it can be carried out in the following forms:

- testing (including computer testing);
- written exam (ticketing system).

# Correspondence of the point-rating system of assessments used by the institute and the assessments of the European system for the transfer of credit units, labor intensity (ECTS)

Grade						
System of letters	digital system	Traditional system	Points (%)	Scored points (max - 100)	Evaluation by discipline without an exam	Criterion
A	4	95-1	95-100	95-100	Credited/ passed	"Excellent" - deserves a student who has shown a deep, systematic and comprehensive knowledge of the educational material, who freely performs practical tasks, who has mastered the recommended basic and additional literature on the discipline
A-	3,67	5	90-94	90-94		"Excellent" - deserves a student who has shown a deep, systematic and comprehensive knowledge of the educational material, who freely performs practical tasks, who has mastered the recommended basic literature on the discipline, but is not familiar with additional literature

B+	3,33		85-89	70-89 50-69		"Good" - exhibited to a student who has shown a systematic and comprehensive knowledge of the educational material, able to independently replenish and update this knowledge in the course of training, performing practical tasks, familiar with the main literature on the discipline
В	3,0	4	80-84			"Good" is given to a student who has shown a systematic and comprehensive knowledge of the educational material, who is able to independently replenish this knowledge in the course of training, performing practical tasks, but not fully familiar with the main literature on the discipline
В-	2,67	75-	75-79			"Good" - is given to a student who has shown the systematic nature of knowledge in the discipline, who is able to independently replenish this knowledge in the course of training, performing practical tasks, but not fully familiar with the main literature on the discipline
C+	2,33		70-74			"Satisfactory" - is given to a student who does not have a systematic nature of knowledge in the discipline, who is not capable of independently replenishing and updating knowledge in the course of further education, performing practical tasks with errors
С	2,0	3	65-69			"Satisfactory" - is given to a student who made mistakes in completing assignments, but who has the necessary knowledge to eliminate them under the guidance of a teacher
C-	1,67		60-64			"Satisfactory" - is set to a student who made errors in the performance of tasks, but who has the possible knowledge to eliminate them under the guidance of a teacher
D+	1,33		55-59			"Satisfactory" - is set to a student who made errors in the performance of tasks, who does not have the necessary knowledge to eliminate them
D-	1,0		50-54			Satisfactory" - is given to a student who has made significant errors in the performance of tasks, who does not have the necessary knowledge to eliminate them
FX	0,5		25-49 Les	Less of	not credited/not passed	"Unsatisfactory" - is set to a student who has not completed the task, does not have the necessary knowledge to eliminate them
F	0	2	0-24	50		"Unsatisfactory" - is set to a student who has not completed the task, does not have the necessary knowledge to eliminate them, even under the guidance of a teacher

# **Academic achievement requirements:**

Attendance by students of all classroom classes without delay is mandatory.

In case of absence, classes are worked out in the order established by the dean's office.

If there are three passes, the teacher has the right not to allow the student to attend classes until the issue is administratively resolved.

If the absence of classes is more than 20.0% of the total number of classes, the student automatically enters the summer semester.

# **Note to the student:**

- ✓ regularly review lecture material;
- ✓ Do not be late and do not miss classes;
- ✓ work off missed classes if you have permission from the dean's office;
- ✓ Actively participate in the classroom (individually and in groups;)
- ✓ timely and fully complete homework assignments;
- ✓ submit all assignments within the time specified by the teacher;
- ✓ independently study the material in the library and at home;
- ✓ timely and accurately fulfill the tasks of the teacher, individual tasks for the IWS to achieve learning outcomes;
- ✓ to master the basic and additional literature necessary for the study of the discipline;
- ✓ performing tasks, the student should not copy or reproduce the work of other students, scientists, practitioners, plagiarism;
- ✓ develop their intellectual and oratory skills;

In case of non-compliance with the requirements of the Memo, the student will be penalized in the form of deducting points (one point for each violated item).

If the requirements of the Memo are fully met, the student is encouraged in the form of an additional 10 points to the final control in the discipline.

# **Academic Integrity, Conduct and Ethics Policy:**

- turn off your cell phone during class;
- Be polite;
- respect other people's opinions;

- formulate objections in the correct form;
- do not shout or raise your voice in the audience;
- independently complete all semester assignments;
- Eliminate plagiarism from your practice;

### Methodical instructions.

It is recommended to organize the time required to study the discipline as follows:

When preparing for a practical lesson, you must first read the abstract with the teacher's explanations.

When performing exercises, you must first understand what you want to do in the exercise, then proceed to its implementation.

*Literature work.* The theoretical material of the course becomes more understandable when books are studied in addition to the abstract. After studying the main topic, it is recommended to perform several exercises.

**Preparation for boundary and intermediate controls.** In preparation for the boundary and intermediate control, it is necessary to study the theory: the definitions of all concepts before understanding the material and independently do several exercises.

*Independent work of students* is organized on all studied topics of each section. Independent work is carried out in the form of:

- work in Internet sites;
- work with basic and additional literature;
- fulfillment of written assignments;
- preparation of reports, abstracts, tables and posters on