**osh state university**

**international medical faculty**

**Department of Public Health**

APPROVED

Head of Public Health Department,

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ A.K. Turusbekova

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_2024

**COURSE SYLLABUS**

***medical parasitology***

2024-2025

For students of medical faculty

3nd year V- semester

2 credits (60 h., including 30h.class hours, 30h. of independent study)

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| **Lecturer:** | **Mainazarova Elmira Sydykovna,** MD, PhD, Associate Professor  +996 701750581 (WhatsApp)  E-mail:[cholponsul@mail.ru](mailto:cholponsul@mail.ru) | |
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**Lecture Sessions**: according timetable

**Location**: zoom\ whatsApp\ Google classroom\ IMF 2

**Class Sessions**: according timetable

**Location**: IMF 2

**1. The goals of mastering the discipline**: introducing students to the phenomenon of parasitism, various classifications of parasites, the main tasks and problems of medical parasitology and epidemiology. Introduction to the most important and widespread parasitic diseases. Understanding the phenomenon of parasitism as an environmental phenomenon, formulating the main issues and problems of general and medical parasitology, explaining the basics of preventing parasitic diseases.

**2. Learning outcomes of the discipline:**

In the course of mastering the discipline, the student achieves the following learning outcomes and will:

**Know and understand:**

**-** basic theoretical concepts of forms of symbiosis, parasitism; the doctrine of the duality of the habitat of parasites;

- symptoms and dynamics of epizootics, methods of prevention and control;

- the main species of animals that lead a parasitic lifestyle and cause human diseases.

**Be able to:**

- use educational, scientific, popular science literature, as well as Internet resources for professional activities;

- use laboratory equipment, light microscopes, and work with temporary and permanent micropreparations;

- analyze the main morphophysiological adaptations of parasites to their way of life; - determine the life forms of parasitic animals; navigate the life cycles of parasites that are of practical importance,

- solve situational problems in private parasitology;

**Own:**

- methods of parasitological examinations and techniques for compiling a parasitological description;

- must demonstrate the ability and willingness to:

- apply experimental methods of parasitological research in practice and willingness to use the acquired knowledge in solving theoretical practical problems in the field of modern parasitology

**Course Policies and Procedures:**

1. The subject Medical Parasatology is highly interactive and well attended by students so participation is crucial. The lecturer expects a respectful environment in which to discuss different positions. Active participation is encouraged, but not dominance. Attendance will be taken for each lesson. Absenteeism, tardiness, and non-participation will be reflected in the student's grade. Please notify your instructor in advance if you will not be attending class.

2. Written assignments must be presented at each lesson. Projects and presentations must be completed or submitted by the assigned deadline. Late assignments will not be accepted. If you know in advance that you will have to miss a class in which you need to complete an assignment, you can make arrangements with your professors to submit the assignment early. Independent work must be submitted before the module week. Projects will not be accepted during module week.

3. Academic behavior. IMF students are expected to maintain the highest standards of academic conduct, professional integrity, and personal integrity. The IMF is committed to maintaining standards of academic conduct consistent with the academic and professional communities of which it is a part. Plagiarism, fraud and other misconduct are serious violations of the IMF Student Code of Conduct. We expect you to be aware of and comply with the department's policies regarding cheating and plagiarism. Any suspected cases of academic misconduct will be dealt with in accordance with IMF rules.

4. Students must be prepared for offline classes, not be distracted by talking to each other, and must wear a uniform. Mobile phones must be turned off. Any violation or delay is regarded as absence from class.

5. Students with disabilities (special needs). Qualified students with disabilities who require appropriate academic accommodations should contact the dean and faculty member as soon as possible to ensure your needs are met in a timely manner. Students must inform the instructor of their disability at the beginning of class so that appropriate accommodations can be made. Handouts are available in alternative accessible formats upon request.

**Grading:**

* **Grading for each practical classes**

Class activity **15 points**

Test **5 points**

Home assignments **5 points**

Album **5 points**

**Total**

**30points**

* **Evaluation criteria for the discipline "** **Medical parasitology" (1 lecture session)**

**Students in order to receive 30 lecture points must comply with the following rules:**

* **Timely arrival: for being late for a lecture by 1 or more minutes minus 5 points;**
* **Uniform (classic uniform and robe), in case of absence of uniform minus 5 points;**
* **Behavior: the student must not speak loudly or laugh loudly, nor interfere with the lecturer in any other way. If a student interferes with the lecturer with his bad behavior, in this case the student will receive NB and will have to work out (to independently study the topic and tell the lecturer).**
* **Abstract - will be checked in a practical lesson. (10 points)**
* **Willingness to answer the lecturer's questions, to assess the comprehensibility of the topic - kahoot test. (10 points)**
* **Grading for individual work of student (self-work)**

**Assessment criteria for the discipline "** **medical parasitology":**

**According to the subject of the SIW, the student must choose different topics and submit on time.**

**The student must answer the following questions:**

**1. Medical Parasitology.**

**2. Laboratory diagnostics, specific prevention and treatment.**

**Choose one of the option**

1. 2 students 1 **article** 30 points

2. Prepare 2 handmade 10 points and write notes for 9 topics 20 points

**Final learning outcomes**

|  |  |  |
| --- | --- | --- |
| **Код РО ООП и его формулировка** | **Компетенции ООП** | **Код РО дисциплины (РОд и его формулировка** |
|  |  |  |
| **РО4 -** Способен решать стандартные задачи с использованием медико-технической аппаратуры, информационно-коммуникационных ресурсов и технологий | **ПК-7** - способен и готов к работе с медико-технической аппаратурой, используемой в  работе с пациентами, применять возможности современных информационных технологий для решения профессиональных задач; | **Знает:** методы исследования паразитов с помощью микроскопа, ИФА анализаторов, амплификаторов для ПЦР.  **Умеет и владеет** навыками пользования микроскопом, ИФА анализаторов, амплификаторов для ПЦР. |
| **РО7 –** Умеет применить базовые знания в области диагностической деятельности для решения профессиональных задач | **ПК-15** - способен и готов к анализировать закономерности функционирования отдельных органов и систем, использовать знания анатомо-физиологических особенностей, основные методики клинико-лабораторного обследования и оценки функционального состояния организма взрослого человека и детей, для своевременной диагностики заболеваний и патологических процессов; | **Знает** патогенез, клиническую картину болезней, вызываемыми паразитами.  **Владеет** навыкамиопределения методики клинико-лабораторного исследования в зависимости от клинических симптомов больного. |

Prerequisites: Biology, Histology, cytology, embryology, Biochemistry, Anatomy, Normal physiology, Pathological anatomy, Microbiology and virology,

Post-requirements: internal diseases, surgical diseases, children's diseases, infectious diseases, oncology.

**Criteria for assessing the IWS in the discipline «Medical parasitology»**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **№** | **Kind of activity** | **Evaluation criteria** |  | | **30 points** |
| 1 | Abstract preparation (referat) | 1.Correctness of the abstract  2. Consistency of content. (Etiology, Transmission routes, Pathogenesis, Clinic, Diagnosis (what laboratory diagnostics is used, explain the principle of this method), Treatment, Prevention)  3. Readiness and novelty of the abstract.  4. Actuality of the topic | 2  5  1,5  1,5 | | **20** |
| 2 | Наndmade- 2 model | 1. Creativity  2. tell the medical significance of the topic | 5  5 | **10** | |

**Total 30 points**

**Topics of lecture lessons for V semester**

***Lectures:***

|  |  |  |
| --- | --- | --- |
| **№** | **Lectures** | **Hours** |
| 1 | Medical parasitology. Subject and tasks | 2 |
| 2 | Classification of parasites | 2 |
| 3 | Medical protozoology | 2 |
| 4 | Medical helminthology. Subject and tasks of medical helminthology | 2 |
| 5 | Medical arachnoentomology | 2 |
| 6 | Parasitological research methods. Serological methods used in the diagnosis of parasitic diseases | 2 |
|  | **Total** | **12** |

[**Topics of practical lessons for V semester**](https://context.reverso.net/%D0%BF%D0%B5%D1%80%D0%B5%D0%B2%D0%BE%D0%B4/%D0%B0%D0%BD%D0%B3%D0%BB%D0%B8%D0%B9%D1%81%D0%BA%D0%B8%D0%B9-%D1%80%D1%83%D1%81%D1%81%D0%BA%D0%B8%D0%B9/practical+lessons)

|  |  |  |
| --- | --- | --- |
| **№** | **Topics of practical classes** | **hours** |
| 1 | Medical parasitology. Subject and tasks | 2 |
| 2 | Classification of parasites | 2 |
| 3 | Hosts and life cycles of parasites | 2 |
| 4 | Medical protozoology. Subkingdom Protozoa | 2 |
| 5 | Medical helminthology. Subject and tasks of medical helminthology | 2 |
| 6 | Medical arachnoentomology. Phylum Arthropod | 2 |
| 7 | Insects - causative agents of myiases | 2 |
| 8 | Parasitological research methods | 2 |
| 9 | Serological methods used in the diagnosis of parasitic diseases | 2 |
| **Итого** | | **18** |

**Topic №1**

**Medical parasitology. Subject and tasks**

**CONTROL QUESTIONS:**

1. Medical parasitology.

2. Scientists parasitologists

3. Parasitism as an ecological phenomenon

**Topic №2**

**Classification of parasites**

**CONTROL QUESTIONS:**

1. According to the level of specialization for a parasitic lifestyle

2. According to the duration of communication with the owner

3. By localization in the host’s body

4. Depending on the number of owners

**Topic №3**

**Hosts and life cycles of parasites**

**CONTROL QUESTIONS:**

1. Characteristics of the “parasite-host” system. Morphological and biological adaptations of organisms to a parasitic lifestyle. Responses of the host organism.

2. Routes of penetration, i.e. routes of parasite invasion into the host body

3. Morphological and biological adaptations of organisms to a parasitic lifestyle

4. Physiological adaptations to a parasitic lifestyle

5. The influence of the parasite on its host

6. Responses of the host body to the effects of parasites

7. Resistance of parasites to host immune responses

8. Vector-borne and non-transmissible natural focal diseases

9. Vector-borne diseases as an object of medical parasitology

**Topic №4**

**Medical protozoology. Subkingdom Protozoa**

**CONTROL QUESTIONS:**

1. Subkingdom Protozoa

2. Type Sarcomastigophora

3. Class Sarcodina

4. Class Flagellates (Mastigophora)

5. Lamblia intestinalis

**Topic №5**

**Medical helminthology. Subject and tasks of medical helminthology**

**CONTROL QUESTIONS:**

1. Type Flatworms

2. Class Flukes

3. Class Tapeworms

4. Type Roundworms (Nemathelminthes

5. Class Proper roundworms (Nematoda)

6. Class Actually roundworms

**Topic№6**

**Medical arachnoentomology. Phylum Arthropod**

**CONTROL QUESTIONS:**

1. Type Arthropods

2. Family Ixodid ticks (Ixodidae

3. Family Argasid mites (Argasidae)

4. Family Scabies mites

5. Family True mosquitoes (Culicidae)

6. True flies (Muscidae)

7. Family Mosquitoes (Phlebotomidae

8. Midge family (Simuliidae)

9. Family Midlings (Ceratopogonidae)

10. Horsefly family (Tabanidae)

11. Tsetse fly family (Glossinidae)

**Topic №7**

**Insects - causative agents of myiases**

Control questions:

1. Intestinal myiases

2. Wohlfarhtia magnifica fly

**Topic №8**

**Parasitological research methods**

CONTROL QUESTIONS:

1. Parasitological research methods

**Topic №9**

**Serological methods used in the diagnosis of parasitic**

**diseases**

**Control questions:**

1. Serological methods used in the diagnosis of parasitic diseases