

### Course plan

<b>Year:</b> 2025	<b>Semester:</b> <input checked="" type="checkbox"/> First, <input type="checkbox"/> Second, <input type="checkbox"/> Summer	<b>Number of students:</b> 5
<b>Major:</b> Master's Degree in Parasitology	<input checked="" type="checkbox"/> Basic sciences, <input type="checkbox"/> Physiopathology	<b>Department:</b> Parasitology, Mycology and Entomology
<b>Course Title:</b> Helminthology 2	<input type="checkbox"/> Theoretical, <input checked="" type="checkbox"/> Practical	<b>Credit:</b> <b>Code N.:</b> 1015075
<b>Prerequisite:</b> _____	<b>Day &amp; Time:</b> Sunday, ١٠-١٢	<b>Course type:</b>
<b>Instructor:</b> Dr Rahman abdizadeh	<b>Office address:</b> Faculty of Medicine, second floor.	<b>Tel:</b> 0383335635
<b>Email:</b> r_abdizadeh@yahoo.com	<b>Response Hours and Days:</b> Saturday to Wednesday, 8AM-15PM.	<b>Student representative name and mobile number:</b>

**Main objective:** This course aims to provide the foundational understanding of the diagnostic methods of tapeworm infections, such as sampling, culture, staining, and microscopic examination. Also the students will be familiar with various serological methods for diagnosing helminth infections.

On completion of this course, the student will be able to:

١. At the end of this lesson, the student should know the common methods for taking stool samples to identify different types of nematodes that infect humans.
٢. Explain the importance of stool testing and the different testing methods in diagnosing nematodes.
٣. Describe the various immunological methods used in the diagnosis of nematode infections.
٤. Describe microtomy methods and preparation of worm histopathology slides and microtomy drawings.
٥. Describe common methods for identifying intestinal and tissue nematodes.
٦. Describe the morphological characteristics of nematodes that infect humans and animals.

#### References (Text books):

- ١- Markell EK; Johan DT; Krotoski WA (2006). Markell and Voges Medical Parasitology. 9th edition. W.B. Saunders Company. Philadelphia, USA.
- ٢- Muller R (last edition). Worms and human diseases. CBA International.
- ٣- Gillespies & Person R.d. (last edition) Principals and practice of clinical parasitology. ohn willey & Soms Ltd. (Last edition)
- ٤- Garcia L.S. (last edition). Diagnostic Medical Parasitology. ASM press (last edition).
- ٥- Topley & Wilson,s Microbiology and Microbial Infections Parasitology.

#### Student evaluation and the value related to each evaluation:

(The assessment tools that will be used to test students ability to understand the course material and gain the skills and competencies stated in learning outcomes)

ASSESSMENT TOOLS	From
Assignments	1
Quiz	1
Presence in online courses	-
Midterm Exam	7
Final Exam (Written exam)	11
<b>TOTAL MARKS</b>	<b>20</b>

**Students responsibilities:**

- 1- Mobile phones must be turned off during class or exams.
- 2- Attending class on time
- 3- It is necessary for the student to attend all class hours. Unexcused absence during the course will result in a grade deduction.

**Discipline and educational rules:**

It is applied according to the regulations of the educational regulations

**Mid exam date:**

**Final exam date:**

Row	date	Time	Topic	Professor	References	Chapter	Pages	Data
1	Tuesday	10-12	Familiarity with the equipment used in the parasitology laboratory and their application. Familiarity with the methods of collecting stool samples. Familiarity with the physical-chemical properties of stool. Familiarity with the solutions used to prepare direct wet stool samples. Familiarity with the method of preparing wet spreads using the prepared solutions and familiarity with the microscopic method of stool samples, preparation of direct wet samples for microscopic examination, microscopic examination of the prepared spreads.	Abdizadeh	Diagnostic Medical Parasitology			28/9/2025
2	Tuesday	10-12	Familiarity with methods for isolating and diagnosing adult worms and larval stages of nematodes from infected hosts. Isolation, staining, and identification of <i>Trichuris trichiura</i> , <i>Trichuris vulpis</i> , <i>Enterobius vermicularis</i> and <i>Syphacia obvelata</i> from infected tissue and its preparation and fixation.	Abdizadeh	Diagnostic Medical Parasitology			5/10/2025
3	Tuesday	10-12	Familiarity with the morphology and diagnosis of <i>Strongyloides stercoralis</i> .	Abdizadeh	Diagnostic Medical Parasitology			12/10/2025
4	Tuesday	10-12	Familiarity with the morphology and diagnosis of <i>Ancylostoma duodenale</i> and <i>Necator americanus</i> .	Abdizadeh	Diagnostic Medical Parasitology			19/10/2025
5	Tuesday	10-12	Familiarity with the	Abdizadeh	Diagnostic			26/10/2025

			morphology and diagnosis of animals hook worms ( <i>Ancylostoma caninum</i> , <i>Ancylostoma braziliense</i> , <i>Ancylostoma ceylanicum</i> , <i>Bunostomum trigonocephalum</i> , <i>Bunostomum phlebotomum</i> and <i>Uncinaria stenocephala</i> )		Medical Parasitology			
6	Tuesday	10-12	Familiarity with the morphology and diagnosis of <i>Trichinella spiralis</i> , <i>Trichinella native</i> , <i>Trichinella nelson</i> and <i>Trichinella pseudospiralis</i> .	Abdizadeh	Diagnostic Medical Parasitology			2/11/2025
7	Tuesday	10-12	Familiarity with the morphology and identification of <i>Ascaris lumbricoides</i> .	Abdizadeh	Diagnostic Medical Parasitology			9/11/2025
8	Tuesday	10-12	Familiarity with the morphology and identification of ( <i>Anisakis simplex</i> , <i>Contracaecum</i> and <i>Pseudoterranova decipiens</i> ).	Abdizadeh	Diagnostic Medical Parasitology			16/11/2025
9	Tuesday	10-12	Familiarity with the morphology and diagnosis of ( <i>Capillaria hepatica</i> , <i>Capillaria philippinensis</i> and <i>Capillaria aerophila</i> ).	Abdizadeh	Diagnostic Medical Parasitology			23/11/2025
10	Tuesday	10-12	Familiarity with the morphology and diagnosis of microfilariae. <i>Loa loa</i> , <i>Dirofilaria immitis</i> and <i>Brugia malayi</i>	Abdizadeh	Diagnostic Medical Parasitology			30/11/2025
11	Tuesday	10-12	Familiarity with the morphology and diagnosis of Trichostrongylidae ( <i>Trichostrongylus axei</i> , <i>Trichostrongylus vitrines</i> , <i>Trichostrongylus colubriformis</i> , and <i>Haemonchus contortus</i> )	Abdizadeh	Diagnostic Medical Parasitology			7/12/2025
12	Tuesday	10-12	Familiarity with the morphology and diagnosis of animal ascaris ( <i>Toxocara canis</i> and <i>Toxocara cati</i> ).	Abdizadeh	Diagnostic Medical Parasitology			14/12/2025
13	Tuesday	10-12	Familiarity with the morphology and diagnosis of animal ( <i>Syngamus trachea</i> , <i>Gongylonema pulchrum</i> , )	Abdizadeh	Diagnostic Medical Parasitology			21/12/2025
14	Tuesday	10-12	Familiarity with the different methods of serological diagnosis of nematodes. Familiarity with the immunofluorescence and ELISA techniques in the diagnosis of toxocariasis and Trichinellosis.	Abdizadeh	Diagnostic Medical Parasitology			28/12/2025

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<b>15</b>		10-12	Familiarity with the practice techniques of microtomy methods and histopathology sample preparation of nematode infection.	Abdizadeh	Diagnostic Medical Parasitology			4/1/2026
<b>16</b>			Review the slides of nematodes.	Abdizadeh	Diagnostic Medical Parasitology			11/1/2026