Course plan

Year: 2025-2026	**Semester:** ■First, ☐Second, ☐ Summer	**Number of students: 5**
Major: Master's Degree in Parasitology	■ Basic sciences, ☐ Physiopathology	**Department:** Parasitology, Mycology and Entomology
Course Title: Helmintology2(Nematode)	■Theoretical, ..☐Practical	**Credit:** **Code N.:** 1015076
Prerequisite: _____	**Day & Time:** Sunday, ٨-١٠	**Course type:**
Instructor: Dr Rahman abdizadeh	**Office address:** Faculty of Medicine, second floor.	**Tel:** 0383335635
Email: r_abdizadeh@yahoo.com	**Response Hours and Days:** Saturday to Wednesday, 8AM-15PM.	**Student representative name and mobile number:**

Main objective: This course aims to provide the foundational understanding of the basic biology of Nematode that may cause disease in humans, and how they cause disease. The course covers Nematode pathogens

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

١. At the end of this lesson, the student should know the important pathogenic Nematode (Intestinal and tissue nematodes).

٢. To know the Nematode (Intestinal and tissue nematodes) agents that cause diseases.

٣. To be aware of the geographical spread of each nematode infection and their incidence and prevalence, especially in different regions of the world and Iran.

٤. To be able to diagnose diseases caused by important nematodes (Intestinal and tissue nematodes) using a slide and to know and explain the prevention and control methods of each nematode disease.

٥. Students get to know the etiological factors of nematode diseases.

٦. The way of transmission of each, their pathogenesis and prognosis will be taught.

٧. Laboratory diagnosis and requesting the type of test, as well as familiarization with the principles of treatment using effective and common drugs in the country, as well as familiarization with the methods of prevention and control of these diseases.

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 ediation) Principals and practice of clinical parasitology. ohn willey & Soms Itd. (Last edition)

٤- Garcia L.S. (last edition). Diagnostic Medical Parasitology. ASM press (last edition).

٥- Toppley & 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
TOTAL MARKS	**20**

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	Sunday	8-10	Review of the general and introduction of parasitology. Familiarity with terms and concepts of parasitology: biology, parasite and host relationships, geographic distribution of parasites, methods of diagnosis of parasitic diseases, methods of control and prevention of parasitic diseases, classification of worms, classification of flatworms.	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			28/9/2025
2	Sunday	8-10	Familiarity with generalities, classification, physiology, morphology and diagnostic key of nematode. Familiarity with the structure of the cuticle and its physiology in nematode, muscular, nervous, digestive, reproductive and excretory systems, how to absorb, digest and metabolize food in nematodes, the evolution and growth stages of nematodes, reproductive and pathological diseases and diagnostic methods of nematodes.	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			5/10/2025
3	Sunday	8-10	Familiarity with the Trichuridae and Oxyuridae famiies. Getting to know the morphological characteristics, classification of nematodes of Trichuridae and Oxyuridae: morphology, medical importance, life cycle, disease and pathology, methods of diagnosis, treatment, epidemiology,	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			12/10/2025

			prevention and control of *Trichuris trichiura, Trichuris vulpis, Enterobius vermicularis and Syphacia obvelata.*					
4	Sunday	8-10	Familiarity with Strongyloididae family (*Strongyloides stercoralis* and *Strongyloides fuelleborni*). Getting to know the morphological features, classification of Strongyloididae family, medical importance, life cycle, disease and pathology, methods of diagnosis, treatment, epidemiology, prevention and control of *Strongyloides stercoralis* and *Strongyloides fuelleborni*.	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			19/10/2025
5	Sunday	8-10	Familiarity with the Hook worm (Ancylostomatidae). Familiarity with morphological characteristics, classification of nematodes of the Ancylostomatidae family, medical importance, life cycle, disease and pathology, methods of diagnosis, treatment, epidemiology, prevention and control of *Ancylostoma duodenale* and *Necator americanus* .	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			26/10/2025
6	Sunday	8-10	Familiarity with the Hookworms of animals cause cutaneous larva migrans. Familiarity with morphological features, classification of Hookworms of animals, medical importance, life cycle, disease and pathology, methods of diagnosis, treatment, epidemiology, prevention and control of animals hook worms (*Ancylostoma caninum, Ancylostoma braziliense, Ancylostoma ceylanicum, Bunostomum trigonocephalum, Bunostomum phlebotomum* and	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			2/11/2025

			Uncinaria stenocephala)					
7	Sunday	10-12	Familiarity with the Trichinellidae family. Familiarity with morphological characteristics, classification of nematodes of the Trichinellidae family. , medical importance, life cycle, disease and pathology, methods of diagnosis, treatment, epidemiology, prevention and control of *Trichinella spiralis*, *Trichinella native*, *Trichinella nelson* and *Trichinella pseudospiralis.*	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			9/11/2025
8	Sunday	10-12	Familiarity with Ascarididae family (*Ascaris lumbricoides*, *Ascaris suum*). Getting to know the morphological features, classification of Ascarididae family, medical importance, life cycle, disease and pathology, methods of diagnosis, treatment, epidemiology, prevention and control of *Ascaris lumbricoides* and *Ascaris suum*	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			16/11/2025
Midterm Exam								
9	Sunday	10-12	Familiarity with the Anisakidae family (*Anisakis simplex*, *Contracaecum* and *Pseudoterranova decipiens*,). Getting to know the morphological features, classification of the Anisakidae family, medical importance, life cycle, disease and pathology, methods of diagnosis, treatment, epidemiology, prevention and control of *Anisakis simplex*, *Contracaecum* and *Pseudoterranova decipiens*).	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			23/11/2025
10	Sunday	10-12	Familiarity with the Capillariidae family (*Capillaria hepatica*, *Capillaria philippinensis* and *Capillaria aerophila*).	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			30/11/2025
11	Sunday	10-12	Getting to know the morphological features, classification of the Anisakidae family, medical importance, life cycle, disease and pathology, methods of diagnosis, treatment, epidemiology, prevention and control of	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			7/12/2025

			(Capillaria hepatica, Capillaria philippinensis and Capillaria aerophila).					
12	Sunday	10-12	General characteristics of filariae, the role of arthropods in the transmission of filariae diseases.	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			14/12/2025
13	Sunday	10-12	Familiarity with the morphological features, classification, medical importance, life cycle, disease and pathology, methods of diagnosis, treatment, epidemiology, prevention and control of *Dracunculus medinensis.*	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			21/12/2025
14	Sunday	10-12	Familiarity with filariasis, life cycle, appearance, evolution, pathogenesis, diagnosis, control and prevention methods. Onchocerciasis, life cycle, appearance, evolution, pathogenesis, diagnosis, control and prevention methods of loa loa.	Abdizadeh	1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			28/12/2025
15	Sunday		Familiarity with animal nematodes: Family Trichostrongylidae and other animal nematodes *Physaloptera*, *Haemonchus*, and *Marshalagea*. Life cycle, appearance, evolution, pathogenesis, methods of diagnosis, control and prevention.		1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			4/1/2026
16	Sunday		Familiarity with the Ascaridia of animals cause visceral larva migrans. Familiarity with morphological features, classification of Ascaris of animals, medical importance, life cycle, disease and pathology, methods of diagnosis, treatment, epidemiology, prevention and control of animals (*Toxocara canis*, *Toxocara cati*, *Baylisascaris procyonis* and *lagochilascaris minor*).		1-Markell and Voges, Medical Parasitology. 2- Worms and human diseases			11/1/2026
17	Sunday		Familiarity with the Phylum acanthocephala. Familiarity with the		1-Markell and Voges, Medical Parasitology. 2- Worms and			18/1/2026

			morphological features, classification, medical importance, life cycle, disease and pathology, methods of diagnosis, treatment, epidemiology, prevention and control of *Moniliformis moniliformis* and *Macracanthorhynchus hirudinaceus*		human diseases			