



**Jordan University of Science and Technology**  
**Faculty of Applied Medical Sciences**  
**Allied Medical Sciences Department**

LM320 Medical Parasitology - JNQF Level: 7

Second Semester 2023-2024

**Course Catalog**

3 Credit Hours. This is an introductory course to medical parasitology and the laboratory diagnostic methods. Students will study the various parasites of medical importance that cause diseases in humans, their structures, life cycles, diseases, treatments, in addition to laboratory diagnosis, prevention, and control.

**Teaching Method:** On Campus

**Text Book**

<b>Title</b>	Markel and Voge's Medical Parasitology
<b>Author(s)</b>	Markel and Voge
<b>Edition</b>	9th Edition
<b>Short Name</b>	Ref #1
<b>Other Information</b>	

**Course References**

Short name	Book name	Author(s)	Edition	Other Information
Ref #2	DPDx - Laboratory Identification of Parasites of Public Health Concern	Centers for Disease Control and Prevention	1st Edition	<a href="https://www.cdc.gov/dpdx/az.html">https://www.cdc.gov/dpdx/az.html</a>

**Instructor**

Name	Prof. Samer Swedan
Office Location	M5L-4
Office Hours	
Email	sfswedan4@just.edu.jo

**Class Schedule & Room**

Section 1:

Lecture Time: Sun, Tue, Thu : 09:30 - 10:30

Room: NB49

**Tentative List of Topics Covered**

<b>Weeks</b>	<b>Topic</b>	<b>References</b>
Week 1	Introduction to Parasitology Intestinal protozoa: Definition of terms, and the pathogenic amoeba: <i>Entamoeba histolytica</i>	From <b>Ref #1</b> , From <b>Ref #2</b>
Week 2	The nonpathogenic amoeba: i.e., <i>Entamoeba hartmanni</i> , <i>Entamoeba coli</i> . The flagellates ( <i>Giardia duodenalis</i> , <i>Chilomastix mesneli</i> , <i>Trichomonas hominis</i> , <i>T. vaginalis</i> )	From <b>Ref #1</b> , From <b>Ref #2</b>
Week 3	The ciliates ( <i>Balantidium coli</i> ) The intestinal coccidia ( <i>Cystoisospora</i> , <i>Cryptosporidium</i> , etc.)	From <b>Ref #1</b> , From <b>Ref #2</b>
Week 4	The blood and tissue dwelling protozoa - The hemoflagellates ( <i>Trypanosoma</i> & <i>Leishmania</i> spp.)	From <b>Ref #1</b> , From <b>Ref #2</b>
Week 5	Malaria ( <i>Plasmodium</i> spp.) - Part 1	From <b>Ref #1</b> , From <b>Ref #2</b>
Week 6	Malaria ( <i>Plasmodium</i> spp.) - Part 2; The coccidia ( <i>Toxoplasma gondii</i> )	From <b>Ref #1</b> , From <b>Ref #2</b>
Week 7	The opportunistic amoeba ( <i>Naegleria</i> & <i>Acanthamoeba</i> ) Parasitology Techniques	From <b>Ref #1</b> , From <b>Ref #2</b>
Week 8	The Trematodes: 1. Intestinal flukes a. <i>Fasciolopsis buski</i> b. Echinostomes c. Heterophyes heterophyes; 2. The liver flukes a. <i>Fasciola hepatica</i> b. <i>Clonorchis sinensis</i> c. <i>Opisthorchis d. Dicrocoelium dendriticum</i>	From <b>Ref #1</b> , From <b>Ref #2</b>
Week 9	3. The blood flukes a. <i>Schistosoma</i> spp. 4. The lung flukes: <i>Paragonimus westermani</i>	From <b>Ref #1</b> , From <b>Ref #2</b>

Week 10	The Cestodes: Diphylobothrium latum, Taenia spp., Echinococcus granulosus, Dipylidium caninum and Hymenolepis spp.	From Ref #1, From Ref #2
Week 11	The Nematodes: The intestinal nematodes: Ascaris lumbricoides, Enterobius vermicularis.	From Ref #1, From Ref #2
Week 12	Hookworms (Ancylostoma & Necator), Strongyloides, Trichuris trichura, The blood and tissue nematodes: the filariae	From Ref #1, From Ref #2
Week 13	Guinea worm, Trichinella spiralis	From Ref #1, From Ref #2
Week 14	Arthropods and ectoparasites; Pseudoparasites	From Ref #1, From Ref #2

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Students will learn basic concepts in parasitology including structure, replication, classification, and pathogenesis [1SLO1] [1L7K1]	30%	
Students will learn about the diseases caused by the medically important parasites [1SLO1] [1L7K1]	30%	
Students will learn the techniques and appropriate clinical samples for diagnosis of parasitic infections [1SLO2, 1SLO3] [1L7S1]	30%	
Students will learn how to apply quality assurance during analysis of clinical samples for identification of diseases caused by parasites [1SLO4] [1L7C1]	10%	

Relationship to Program Student Outcomes (Out of 100%)											
SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	MSLO1	MSLO2	MSLO3	MSLO4	MSLO5	MSLO6
60	15	15	10								

Relationship to NQF Outcomes (Out of 100%)		
L7K1	L7S1	L7C1
60	30	10

Policy
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Attendance policy	<p>* Students are expected to attend more than 80% of lectures.</p> <p>* All absences will be entered electronically into the University site</p> <p>* If absence is more than 20% student will be banned from the course after electronic notification from the university through student e-mail.</p>
Feedback	<p>Concerns or complaints should be expressed in the first instance to the course instructor. If no resolution is forthcoming then the issue should be brought to the attention of the Department Chair and if still unresolved to the Dean. Questions about the material covered in the lecture, notes on the content of the course, its teaching and assessment methods can be discussed with the course instructor at the designated office hours or by e-mail to the following address <a href="mailto:sfswedan4@just.edu.jo">sfswedan4@just.edu.jo</a></p>
Makeup Exams	<p>Any student who did not attend any of the scheduled exams and who requests taking a makeup exam must refer to the Dean's Assistant of the Faculty of Applied Medical Sciences to provide an official excuse letter supporting his absence (Medical report from the JUST medical center, etc.). Once the excuse has been accepted by the Dean's Assistant and the Dean, a student can take the makeup exam at a date no later than ONE week from the original exam date. Students must immediately contact and coordinate with the course instructor, and start the process of excuse acceptance at the Deanship.</p>

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