



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

LM328 Medical Parasitology Practical - JNQF Level: 7

Second Semester 2023-2024

Course Catalog

1 Credit Hours. This course is designed to introduce medical laboratory sciences students to diagnostic medical parasitology including parasite diagnostic stages and methods, parasite life cycles, and processing of clinical samples. Key diagnostic features of the various parasites will be emphasized.

Teaching Method: On Campus

Text Book

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

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	https://www.cdc.gov/dpdx/az.html

Instructor

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

Class Schedule & Room

Section 1:

Lecture Time: Sun : 10:30 - 12:30

Room: LAB M 6B

Section 2:

Lecture Time: Sun : 14:30 - 16:30

Room: LAB M 6B

Section 3:

Lecture Time: Mon : 08:30 - 10:30

Room: LAB M 6B

Section 4:

Lecture Time: Wed : 08:30 - 10:30

Room: LAB M 6B

Section 5:

Lecture Time: Thu : 10:30 - 12:30

Room: LAB M 6B

Tentative List of Topics Covered

Weeks	Topic	References
Week 1	Intestinal protozoa: Pathogenic amoeba: (<i>Entamoeba histolytica</i>); Non-pathogenic amoeba: (<i>Entamoeba coli</i> , <i>Endolimax nana</i> , and <i>Iodamoeba butschlii</i>)	From Ref #1 , From Ref #2
Week 2	Intestinal flagellates: (<i>Giardia duodenalis</i> , <i>Dientamoeba fragilis</i> , <i>Chilomastix mesneli</i> and <i>Trichomonas hominis</i>); Genital Flagellates: (<i>Trichomonas vaginalis</i>); Intestinal Ciliate: (<i>Balantidium coli</i>); CNS, CSF parasites (The opportunistic amoeba): <i>Naegleria fowleri</i>	From Ref #1 , From Ref #2
Week 3	The Apicomplexa/Sporozoa (<i>Plasmodium</i> spp.); The intestinal coccidia (<i>Cystoisospora</i> , <i>Cryptosporidium</i>)	From Ref #1 , From Ref #2
Week 4	The blood and tissue dwelling protozoa: The hemoflagellates (<i>Trypanosoma</i> & <i>Leishmania</i> spp.) and The coccidia (<i>Toxoplasma gondii</i>)	From Ref #1 , From Ref #2
Week 5	Midterm Exam	
Week 6	Helminths: [A]. The Trematodes: Intestinal flukes (<i>Fasciolopsis buski</i> , <i>Echinostomes</i> c. <i>Heterophyes heterophyes</i> and <i>Metagonimus yokogawi</i>); The lung flukes:(<i>Paragonimus westermani</i>)	From Ref #1 , From Ref #2

Week 7	Helminths: [A]. The Trematodes: The liver flukes: (<i>Fasciola hepatica</i> , <i>Clonorchis sinensis</i> , <i>Opisthorchis</i> and <i>Dicrocoelium dendriticum</i> ; The blood flukes: (<i>Schistosoma</i> spp.)	From Ref #1, From Ref #2
Week 8	Helminths: [B]. The Cestodes: (<i>Diphyllobothrium latum</i> , <i>Taenia</i> spp.)	From Ref #1, From Ref #2
Week 9	Helminths: [B]. The Cestodes: (<i>Echinococcus granulosus</i> , <i>Dipylidium caninum</i> and <i>Hymenolepis</i> spp.)	From Ref #1, From Ref #2
Week 10	Helminths: [C]. The Nematodes: (<i>Ascaris lumbricoides</i> , Hookworms [<i>Ancylostoma</i> & <i>Necator</i>], and <i>Strongyloides stercoralis</i>)	From Ref #1, From Ref #2
Week 11	Helminths: [C]. The Nematodes: (<i>Trichinella spiralis</i> , <i>Enterobius vermicularis</i> and <i>Trichuris trichiura</i>)	From Ref #1, From Ref #2
Week 12	Pseudoparasites	From Ref #1, From Ref #2
Week 12	Revision	
Week 14	Revision	
Week 15	Final Exam	

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Students will learn key concepts for diagnosis of parasitic infections including the type of clinical sample, key diagnostic methods, and key diagnostic features [1SLO1] [1L7K1]	40%	
Students will learn the techniques and methods for processing clinical samples for diagnosis of parasitic infections [1SLO2] [1L7S1, 1L7S2]	30%	
Students will be able to identify the parasites and distinguish them from the non-pathogenic commensals and properly report the findings [1SLO3] [1L7C1]	30%	

Relationship to Program Student Outcomes (Out of 100%)											
SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	MSLO1	MSLO2	MSLO3	MSLO4	MSLO5	MSLO6
40	30	30									

Relationship to NQF Outcomes (Out of 100%)			
L7K1	L7S1	L7S2	L7C1
40	15	15	30

Policy	
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>
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>
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 also sent by e-mail to the course instructor.</p>

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