



University of Sadat City
Faculty of Veterinary Medicine
Dept. of Aquatic Animal Medicine and Hygiene
(2014-2015)



Aquatic Animal Parasitic Diseases (812P)

Master COURSE SPECIFICATION

A. BASIC INFORMATION

University:	University of Sadat City
Faculty:	Veterinary Medicine
Program on which the course is given:	Master in Veterinary Medical Sciences (Aquatic Animal Medicine and Hygiene)
Department offering the Course:	Aquatic Animal Medicine and Hygiene
Course code:	812M
Course title:	Aquatic Animal Parasitic Diseases
Lecture (hr/week):	3
Practical (hr/week):	3
Course coordinator:	Dr. Mouhammed Khallaf

B. PROFESSIONAL INFORMATION

1) Overall aims of course

Upon successful completion of the course, the student will be able to:

- J Diagnose different parasitic diseases of fish and other aquatic animals.
- J Treat and control aquatic parasitic diseases.

2) Intended learning outcomes of course (ILOs)

a) KNOWLEDGE AND UNDERSTANDING

By the end of this course, the graduate should be able to:

- a.1. Define the basic terminology in parasitic aquatic diseases.
- a.2. Recognize the etiology and pathogenesis of aquatic parasitic diseases.
- a.3. Describe the major clinical signs of aquatic parasitic diseases.
- a.4. Outline the methods of diagnosis and treatment of aquatic parasitic diseases
- a.5. Discuss the prevention and control measures of parasitic diseases of fish and other aquatic animals.

b) INTELLECTUAL SKILLS

By the end of this course, the student should be able to:

- b.1. Correlate the results of laboratory tests with clinical signs and PM lesions to reach correct diagnosis.
- b.2. Differentiate aquatic parasitic diseases from other infectious or non-infectious diseases.
- b.3. Select the most suitable and economic way of treatment and prevention of parasitic disease conditions in fish.
- b.4. Order the suitable measures to control and prevent aquatic parasitic diseases.
- b.5. Detect the quality of fish intended for human consumption.

c) PROFESSIONAL AND PRACTICAL SKILLS

By the end of this course, the student should be able to:

- c.1. Determine case history and information about the morbidity and mortality in aquatic animals.
- c.2. Prepare blood and tissue sampling, labeling and preservation of samples.
- c.3. Investigate post mortem examination of dead and diseased fish.
- c.4. Determine the necessary laboratory investigations to aid diagnosis of the parasitic diseases.
- c.5. Classify the aquatic diseases depending upon case history, clinical signs, PM lesions and laboratory findings.
- c.6. Determine drug doses accurately on a pond basis according to fish size, intensity and severity of disease.

d) GENERAL AND TRANSFERABLE SKILL

By the end of this course, the student should be able to:

- d.1. Plan effectively as part of a team.
- d.2. Create different resources for self-learning such as libraries, scientific periodicals, internet and various scientific associations.
- d.3. Join effectively.
- d.4. Organize time perfectly.

3) Topics and contents

Topic	No. of hours		
	Lectures	Practical	Total
Zoogeography of aquatic parasites	6	0	6
Diseases caused by protozoa	6	12	18
Diseases caused by monogena	6	6	12
Diseases caused by digenea	6	12	18
Diseases caused by cestodes	6	6	12
Diseases caused by nematodes	6	6	12
Diseases caused by acanthocephala	6	6	12
Parasitic malacology	9	6	15
Diseases caused by arthropoda	6	6	12
Diseases caused by protozoa	6	6	12
Parasitic annelid	6	6	12
Lamprey	6	6	12
Parasitic diseases of edible crustacea	6	6	12
Parasitic diseases of edible mollusca	6	6	12
Parasitic diseases of edible echinodermata	6	3	9
Parasitic diseases of amphibia	6	3	9
Parasitic diseases of aquatic reptiles	6	6	12
Parasitic diseases of aquatic mammals	6	6	12
Diagnosis of parasitic infestations in aquatic animals	9	9	18
Treatment and control of parasitic infestations in aquatic animals	12	15	27
Total	132	132	264

4) Teaching and learning methods

- 4.1. Lectures.
- 4.2. Practical.
- 4.3. Self-learning activities.

5) Student assessment

a. METHODS:

1- Written examination	For assessment of knowledge, back calling and Intellectual skills
2- Practical examination	For assessment of practical and professional skill.

3- Oral examination	For assessment of knowledge and Intellectual skills
4- Student activities	For assessment of knowledge and general and transferable skills

b. MATRIX ALIGNMENT OF THE MEASURED ILOS/ ASSESSMENTS METHODS:

	K.U (a)	I.S (b)	P.P.S (c)	G.S (d)
Written exam	1,2,3,4,5	1,2,3,4		
Practical exam		2	1,2,3,4,5,6	
Oral exam	2,3,5	3,5		
Student activities				1-4

c. WEIGHT OF ASSESSMENTS:

Assessment	Allocated Mark	Evidence
Final written exam	50%	Marked and signed written paper
Practical exam	20%	Marked and signed practical exam paper
Oral exam	20%	Signed list of oral exam marks
Student assignments	10%	Representative samples of presented materials

6) List of references

6.1. Essential books

-] Woo P.T.K. (2006): Fish Diseases and Disorders, Volume 1: Protozoan and Metazoan Infections. CABI; Second edition (June 23, 2006).
-] Untergasser , G., Untergasser , D., Axelrod , H. R. (1992): Handbook of Fish Diseases. TFH Publications.
-] Noga, E.J. (2010): Fish Disease: Diagnosis and Treatment. Wiley-Blackwell; 2 edition, USA.
-] Anderson, M.D. (2002). Fish disease diagnosis. An International Thomson. Publishing Company, London.
-] Michael, M.T. (1975): Crustacean diseases and management. Iowa State University Press/ Ames, Iowa.

6.3. Periodicals

-] Index of fish Health and Production
-] Journal of fish disease
-] Indian journal of fish disease
-] Journal of fish bacteriology

) Journal of virology

6.4. Web sites

) animal-world.com/encyclo/fresh/.../Diseases.htm

) www.fishyfarmacy.com

) www.fishyfarmacy.com/symptoms.html

) www.aquaticcommunity.com/disease

) www.alnwadr.com/animals103

) www.fishlore.com/Disease.htm

7) Facilities required for teaching and learning

7.1 Data-show.

7.2 Network for technology transfer.

7.3 Computer.

	Course coordinators	Head of department
Name	Mouhammed Khallaf	Prof. Dr. Shaaban Gad Allah
Signature		

Matrix alignment of course topics and ILOs

Topic	No. of hours /week		Total hours	Hours for Lect.	Hours for Pract.	ILOs			
	Lect.	Pract.				K.U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Zoogeography of aquatic parasites	3	3	6	6	0	1			
Diseases caused by protozoa	3	3	18	6	12	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Diseases caused by monogena	3	3	12	6	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Diseases caused by digenea	3	3	18	6	12	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Diseases caused by cestodes	3	3	12	6	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Diseases caused by nematodes	3	3	12	6	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Diseases caused by acanthocephala	3	3	12	6	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Parasitic malacology	3	3	15	9	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Diseases caused by arthropoda	3	3	12	6	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Diseases caused by protozoa	3	3	12	6	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Parasitic annelida	3	3	12	6	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Lamprey	3	3	12	6	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Parasitic diseases of edible crustacea	3	3	12	6	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Parasitic diseases of edible mollusca	3	3	12	6	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Parasitic diseases of edible echinodermata	3	3	9	6	3	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Parasitic diseases of amphibia	3	3	9	6	3	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Parasitic diseases of aquatic reptiles	3	3	12	6	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4
Parasitic diseases of aquatic mammals	3	3	12	6	6	1,2,3,4,5	1,2,3,4,5	1,2,3,4,5,6	1,2,3,4

Diagnosis of parasitic infestations in aquatic animals	3	3	18	9	9	3,4	1,2	1-5	1-4
Treatment and control of parasitic infestations in aquatic animals	3	3	27	12	15	4,5	4,5	6	1-4
Total			264	132	132				