



Sohag University  
 Faculty of Veterinary Medicine  
 Fish diseases and management Dept.

**Department:** Fish Diseases and Management  
**Course Specifications of Fish Diseases and Management**  
**(2014)**

**A - BASIC INFORMATION**

**Title:**

Fish Diseases and Management

**Academic year /Level:**

4<sup>th</sup> Year - One Semester

**Code:**

**Program on which the course is given:** B.V. Sc

**Department offering the course:** Fish Diseases and Management

**Lectures:** 3 hrs/week

**Practical:** 4 hrs/week

**Total = 7 \* 15 = 105 hrs**

**Major or Minor element of programs:** Major

**B - PROFESSIONAL INFORMATION**

## **1. Overall aim of the course:**

By the end of the course; the graduate should be informed to the basic knowledge and information of the infectious and non infectious fish diseases and able to apply the different and recent diagnostic methods of fish diseases. The graduate should be familiar with the different programs for prevention and treatment of fish diseases and had sufficient awareness about fish farming, fish feeding, fish management and water quality management.

## **2. Intended Learning Outcomes (ILOs) of the Course:**

### **2.a- Knowledge and Understanding**

- 1- Recognize anatomy and applied physiology of fishes**
- 2- Know the differences between fish species**
- 3- Differentiate between the normal and diseased fishes**
- 4- Understand the stress and stressors**
- 5- Recognize the sources of fish infections**
- 6- Specify clinical signs of fish diseases**
- 7- Categorize the causes of fish diseases**
- 8- Use the different methods of fish diseases diagnosis**
- 9- Realize diagnose of parasitic, bacterial, viral and mycotic diseases of fish**
- 10- Recognize the different methods of fish diseases prevention and control**
- 11- know the chemical and drugs used**

	<p>for fish diseases treatment</p> <p><b>12- Be aware of fish farming, fish management, fish transportation and fish reproduction</b></p> <p><b>13- Has good practice in the water quality management</b></p>
<p><b>2.b- Intellectual Skills:</b></p>	<p><b>1- Differentiate between fish diseases</b></p> <p><b>2- Design programs for control and prevention of fish diseases</b></p> <p><b>3- layout fish farm and designs its management program</b></p>
<p><b>2.c- Professional and Practical Skills</b></p>	<p><b>1- Classify and identify fish species</b></p> <p><b>2- Collect and preserve fish samples</b></p> <p><b>3- Examine clinically the fish population and individual fish</b></p> <p><b>4- Distinguish the different fish diseases</b></p> <p><b>5- Identify the causative agents of fish diseases</b></p> <p><b>6- Select and use the drugs for diseased fish treatment</b></p> <p><b>7- Design and apply programs of fish diseases control and prevention</b></p> <p><b>8- Layout and manage the fish farms</b></p> <p><b>9- Examine water quality and solve its problems in the fish farms</b></p> <p><b>10- Handle and restrain fish in a welfare manner</b></p>

	<b>11- Utilize the appropriate safety procedures to protect self, co-workers and clients.</b>	
<b>2.d- General and Transferable Skills</b>	<b>1- Use computer for internet search and presentations</b> <b>2- Group working</b> <b>3- Practice the communication skills</b> <b>4- Problems solving</b>	
<b>3. Contents:</b>		
<b>3.1- Theoretical contents</b>		
<b>Lecture</b>	<b>Time allowed (Hour)</b>	<b>Lecturer</b>
<b>1- Introduction, Stress and stressors</b>	<b>3</b>	<b>Prof. Moh Abd El Aziz</b>
<b>2- Parasitic diseases of fish</b>	<b>12</b>	<b>Prof. Moh Abd El Aziz</b>
<b>3- Bacterial diseases of fish</b>	<b>12</b>	<b>Dr. Mahmoud Hasheim</b>
<b>4- Mycotic diseases of fish</b>	<b>3</b>	<b>Dr. Mahmoud Hasheim</b>
<b>5- Viral diseases of fish</b>	<b>1.5</b>	<b>Dr. Mahmoud Hasheim</b>
<b>6- Nutritional and environmental diseases of fish</b>	<b>1.5</b>	<b>Prof. Moh Abd El Aziz</b>
<b>7- Fish farming and management</b>	<b>6</b>	<b>Prof. Moh Abd El Aziz</b>
<b>8- Fish reproduction</b>	<b>3</b>	<b>Prof. Moh Abd El Aziz</b>

<p><b>3.2- Practical contents</b></p> <p><b>1-Fish classification</b></p> <p><b>2-Fish anatomy</b></p>	<p><b>4</b></p> <p><b>10</b></p>	
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Fish Diseases and Management

<b>3-Diagnosis of fish diseases</b>		
<b>1-Fish Sampling</b>	<b>2</b>	
<b>2-Clinical diagnosis of fish diseases</b>	<b>4</b>	
<b>3-Laboratory diagnosis of fish diseases</b>		
<b>1- Parastiological examination</b>	<b>4</b>	
<b>2-Bacteriological examination</b>	<b>4</b>	
<b>3-Mycotic examination</b>		
<b>4-Principles of fish diseases control and treatment</b>	<b>2</b>	<b>Prof. Moh Abd El Aziz</b> <b>Dr. Mahmoud Hasheim</b>
<b>5-- Drugs and chemicals used in fish farms</b>	<b>2</b>	
<b>6-Fish farming</b>	<b>8</b>	
<b>7-Fish reproduction</b>	<b>4</b>	
<b>8-Fish transportation</b>	<b>1</b>	
<b>9-Fish farm and museum visit</b>	<b>4</b>	
<b>10-Water quality and examination of its parameters</b>	<b>3</b>	
<b>11-Ornamental fishes and their aquarium layout</b>	<b>4</b>	

**4. Teaching and Learning Methods:**

- 4.1- Lectures**
- 4.2- Practical lessons**
- 4.3- Students groups**
- 4.4- Fish farms and museum visits**
- 4.5- Assays and seminars**

## 5 - Additional Teaching and Learning Methods

Free office meeting for questions and discussion

## 6– Methods of student assessment and timing

<u>Assessment</u>	<u>Time</u>
1- Students activities	during lectures and practical lessons
2- Periodical exams	4 <sup>th</sup> , 7 <sup>th</sup> and 10 <sup>th</sup> week
3-Final practical exam	15 <sup>th</sup> week
4- Final written exam	-----
5- Oral exam	-----

## 7- Weighting of assessment

Final written exam	50 %
Final practical exam	20 %
Oral exam	10 %
Periodical exams and activities	20 %
<b><u>Total (100 degrees)</u></b>	<b><u>100%</u></b>

## 8 - List of References

### 8.1 - Course Notes: No

### 8.2 - Essential Books:

- 1- Fish Health Text Book (G. Post)
- 2- Fish Diseases and Disorders  
(P.T.K. Woo and D.W. Bruno)

### 3-Theoretical and Practical Notes of the department

### 8.3 - Recommended books

	<p>1- Fish diseases, (Wilhelm schaepercalus)</p> <p>2- Fish Medicine (Stoskopf and Michael)</p> <hr/> <p><b>8.4 - Periodicals, websites, ..... etc</b></p> <p>1- Journal of fish diseases</p> <p>2- Aquaculture</p> <p>3- Journal of fish biology</p> <hr/> <p><b>8.5 – Website</b></p> <p><a href="mailto:Egyptfish.com@yahoo.com">Egyptfish.com@yahoo.com</a></p>
<p><b>9- Facilitates for teaching and learning</b></p>	<p><b>1- Laptop computer, data show, screen and pointer</b></p> <p><b>2- White board and colour pens</b></p> <p><b>3- Laboratory and lab. equipments, tools and materials</b></p> <p><b>4- Samples of live fishes</b></p> <p><b>5- Facilities for Field visit</b></p>

**Course Coordinator:**

**Prof. Dr. Mohamed Abd El Aziz Ahmed Abd El-Galil**

**Head of Department:**

**Prof. Dr. Mohamed Abd El Aziz Ahmed Abd El-Galil**

**Date: 2017**