



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



# Poultry Hygiene (Advanced)

(770P)

## PhD COURSE SPECIFICATION

### A. BASIC INFORMATION

<b>University:</b>	<b>University of Sadat City</b>
<b>Faculty:</b>	<b>Veterinary Medicine</b>
<b>Program on which the course is given:</b>	<b>PhD in Veterinary Medical Sciences (animal hygiene)</b>
<b>Department offering the Course:</b>	<b>Animal Hygiene and Zoonoses</b>
<b>Course code:</b>	<b>770 P</b>
<b>Course title:</b>	<b>Poultry Hygiene (Advanced)</b>
<b>Lecture (hour/week):</b>	<b>2</b>
<b>Practical (hour/week):</b>	<b>2</b>
<b>Course coordinator:</b>	<b>Prof. Dr. Ahmed Byomi</b>

## **B. PROFESSIONAL INFORMATION**

### **1) Overall aims of course**

At completion this course, the veterinarian should be able to:

Understand the importance of Poultry keeping and maintenance in relation to the modern husbandry techniques.

Know the hygienic and environmental needs of poultry under intensive production systems.

Apply biosecurity measures for preventing introduction of diseases to the poultry flocks.

### **2) Intended learning outcomes of course (ILOs)**

#### **a) KNOWLEDGE AND UNDERSTANDING**

**By the end of this course the student should:-**

a.1 define the basic terms of Hygiene, veterinary public health, disinfection, sterilization and sanitation.

a.2 – explain fully the needs of different types of poultry according to their age, production and health status.

a.3- describe accurately the environmental and hygienic requirements of poultry for better keeping and rearing .

a. 4 – discuss precisely the housing requirements of different types of poultry types in relation to health and production.

#### **INTELLECTUAL SKILLS**

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

b.1- analyze data about different poultry types kept under intensive production systems.

b.2- detect the requirements of poultry from monitor the health status of poultry.

b.3- identify the adaptation of poultry to their environment

b.4- interpret the hygienic problems of poultry in relation to their housing conditions.

b.5- identify strategies for disease prevention, control and eradication of infectious diseases.

### **C) PROFESSIONAL AND PRACTICAL SKILLS**

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

C. 1- apply the actual conditions of poultry keeping.

C.2- examine the environmental conditions under which poultry are reared.

C.3- Collect samples from the affected populations for further investigations to ascertain the hygienic problems.

C.4- handle sanitation and decontamination procedures for maintaining poultry.

C.5- Apply biosecurity measures efficiently to prevent disease transmission.

### **D) GENERAL AND TRANSFERABLE SKILL**

**By the end of studying the course, the student should be able to**

D1-join effectively as part of a team.

D2-handle Efficiently make use of library facilities and IT tools.

D3-improve appropriate computer / keyboard skills including word

## **3) Topics and contents**

<b>Topics</b>	<b>No. of heures</b>		
	<b>Lecture</b>	<b>practical</b>	<b>Total</b>
Common terms and policy of disease control and prevention	8	--	8
<b>Veterinary epidemiology</b>  -Uses and types of epidemiological investigations  -Patterns of disease occurrence and factors affecting them.	20	18	38

- Epidemiological triad and causation of diseases			
<b>Combating of contagious diseases</b>  -Sources of infection.  - Methods for prevention and eradication of contagious diseases (notification, isolation & quarantine).  -Quarantine measures taken on imported birds, their products and by-products.  - Hygienic disposal of dead birds.	10	--	10
<b>Disinfection and disinfectants in Veterinary practice</b>  - Disinfection, sterilization and antisepsis  - Physical and chemical means of disinfection  - Characters of ideal chemical disinfectants and their modes of action.  - Factors affecting the efficiency of disinfectants.  - Application of chemical disinfectants in the veterinary practice.  - Assessing quality of chemical disinfectants and disinfection.	10	30	40

<p><b>Air Hygiene and ventilation</b></p> <ul style="list-style-type: none"> <li>- Air composition and hygienic significance.</li> <li>- Air pollution (indoor and outdoor air pollutants) and bioremediation.</li> <li>- Harmful gases inside poultry housing.</li> <li>- Environmental effects on poultry health (ambient temperature, humidity, air speed, light).</li> <li>- Ventilation inside poultry buildings (natural &amp; artificial).</li> </ul>	10	20	30
<p><b>Water hygiene</b></p> <ul style="list-style-type: none"> <li>- Hygienic significance and global water sources.</li> <li>- Water pollution and its sources.</li> <li>- Hygienic water requirements for birds.</li> <li>- Water –related diseases.</li> </ul>	10	20	30
<p><b>poultry housing and disposal of litter</b></p> <ul style="list-style-type: none"> <li>- Aim of housing and housing requirements under intensive systems of production.</li> <li>- Types of housing broilers.</li> <li>- Types of housing Layers.</li> <li>- Hygienic Problems arising inside poultry houses</li> </ul>	10	--	10

<b>Eradication of external parasites</b>	10	--	10
- Hygienic and economic effects of ectoparasitic infestation on poultry			
- Vectorial control of insects.			
<b>Total</b>	<b>88</b>	<b>88</b>	<b>176</b>

#### 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:

	<b>K.U (a)</b>	<b>I.S (b)</b>	<b>P.P.S (c)</b>	<b>G.S (d)</b>
Written exam	1,2,3,4	1,3,4,5		-
Practical exam		2	1,2,3,4,5	-
Oral exam	1,2,3,4,,	1,3,4		-
Student activities (assay, seminar, etc.)	1,2			1-3

**c. WEIGHT OF ASSESSMENTS:**

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

**6) List of references**

**6.1.Essential books**

- 1- Cullen, P.T.(2000):** Farm Animal Health. A practical Guides, 1<sup>st</sup> ed.
  - 2- Dewi, A.P.; Axford, R. F. E.; Marai, I. F. M. and Omed, H. (1994):** Pollution in Livestock Production Systems. CAB International. Wallingford, UK.
  - 3- Geer, B. K. (1980):** Animal Health. A Layman`s guide to disease control. 2<sup>nd</sup> ed. Interstate printers and Publishers, USA.
  - 4- Gary, N. F. (1994):** Drinking water quality, Problems and solutions. Wiley Publishers, UK.
  - 5- Last, A. M. (1983):** A Dictionary of Epidemiology. Oxford University Press, London.
  - 6-North, O. and Bell, D. (2005):** Commercial Chicken Production Manual. 4<sup>th</sup> ed. Chapman & Hall, New York, Ny, USA.
- Standard Methods for Examination of Water and Waste Water. A.P.H.A. (2005): Inc., Washington D.C., USA.Co. Sydney.

**7- Philips, C. J. C. (2001):** Principals of Cattle production. CABI Publishing, Wallingford, UK.

**8-Pepper, I. L.; Gerba, C. P. and Prussea, M. L. (1996):** Pollution Science. Academic Press, Inc., California, and USA.

**9-Lim, D. V. (1989):** Microbiology. West Publish. Co.St. Paul, USA.

**10- Linton, A. H.; Hugo, W. B. and Russell, A. D. (1987):** Disinfection in Veterinary and farm animal practice. Blackwell Scientific Publication Ltd.

**11-Martin, S. W.; Meek, A. H. and Willeberg, P. (1987):** Veterinary Epidemiology. Principals and Methods. Iowa State University Press, Ames.

## **6.2. Journals Web sites**

- World Poultry Science Journal.
- Journal of Infection and Immunity.
- Journal of Hygiene.
- Journal of Animal Science.
- Journal of Dairy Animal Science.
- Journal of Poultry Science.
- British Poultry Science Journal.
- Journal of Tropical Animal Health and Production.

## **7) Facilities required for teaching and learning**

- 7.1. Data-show.
- 7.2. Network for technology transfer.



7.3. Laboratory kits for experiments.

7.4. Computer.

	<b>Course coordinators</b>	<b>Head of department</b>
<b>Name</b>	Prof. Dr. Ahmed Byomi	Prof. Dr. Ahmed Byomi
<b>Signature</b>		

### Matrix alignment of course topics and ILOs

Topic	No. of hours /week		Total hours	Hours for lect.	Hours for pract.	ILOs				T&L. methods				
	Lect.	Pract.				K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)	Lect.	Pract.	Self & active leaning	Audio visual	Case study
Common terms and policy of disease control and prevention	2	-	<b>8</b>	<b>8</b>		1	1		1	+	-			
<b>Epidemiology</b>	2	2	<b>38</b>	<b>20</b>	18	2	2,5	2,3	1,2,3	+	+			
Combating of contagious diseases	2	-	<b>10</b>	<b>10</b>		3,	1		1,2	+	-			
Disinfection and disinfectants in Veterinary practice	2	2	<b>40</b>	<b>10</b>	30	3	5	4,5	2,3		+			
Air Hygiene and pollution	2	2	<b>30</b>	<b>10</b>	20	1,2,3	1	1,4	3	+	+			

Water hygiene	2	2	<b>30</b>	<b>10</b>	20	2,3	1,4	2,3,4	1,	+	+			
poultry housing and disposal of litter	2	-	<b>10</b>	<b>10</b>		2,4	2,3	-	,3	+	-			
Eradication of external parasites	2	-	<b>10</b>	<b>10</b>	8	2,3,	4	-	1,	+	-			