



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



Farm Animal Hygiene (advanced)

(769P)

PhD COURSE SPECIFICATION

A. BASIC INFORMATION

University:	University of Sadat City
Faculty:	Veterinary Medicine
Program on which the course is given:	PhD in Veterinary Medical Sciences (Animal and Environment Hygiene)
Department offering the Course:	Animal Hygiene and Zoonoses
Course code:	769 p
Course title:	Farm Animal Hygiene (advanced)
Lecture (hour/week):	2
Practical (hour/week):	2
Course coordinator:	Prof. Dr. Ahmed Byomi

B. PROFESSIONAL INFORMATION

1) Overall aims of course

At completion this course, the veterinarian should be know precisely the concept of veterinary public health, sanitation and environmental hygiene and could be able to prevent the spread of diseases especially infectious diseases. The veterinarian should be able to apply methods for eradication of disease causing agents from the surrounding environment of animals and establish the suitable hygienic measures.

2) Intended learning outcomes of course (ILOs)

a) KNOWLEDGE AND UNDERSTANDING

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

- a.1 outline the basic terms of animal hygiene, sanitation, disinfection, sterilization and veterinary public health .
- a.2 explains fully the principals of prevention, control and eradication of diseases.
- a.3 discuss precisely the role of good hygienic measures in improving the health status of livestock and gaining the maximum profits from animal production.
- a.4 clarify The impact of good hygiene inside animal and poultry dwellings on human health and welfare.
- a.5. discuss the methods of Eradication and combating of external parasites and their harmful effect on animal health .

b) INTELLECTUAL SKILLS

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

- b.1- analyze and interpret data about existence, distribution, transmission and possible risk factors of disease.
- b.2- interprets the different strategies for prevention, control and eradication of the diseases.
- b.3- detect the hygienic problems in the farms to provide suitable means for control.
- b.4 –characterize the disease events precisely.

b.5. examine the efficiency of the chemical disinfectant.

C) PROFESSIONAL AND PRACTICAL SKILLS

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

C. 1- use the suitable techniques for analysis of samples in a fast and simple manner.

C.2- illustrate the diseases (Incidence, prevalence, ratio of clinical to sub-clinical cases, crude mortality, case fatality.....ect.).

C.3- Apply of chemical disinfectants in the field situations and assessment of their efficiency.

D) GENERAL AND TRANSFERABLE SKILL

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

d.1. Join effectively as part of a team.

d.2. Handle library facilities and IT tools.

d.3. Improve computer / keyboard skills including word

d.4. Arrange spreadsheets, presentation packages and graph plotting.:

3) Topics and contents

Topics	No. of hours		
	Lecture	practical	Total
Common terms and policy of disease control and prevention	8	--	8
Epidemiology -Uses and types of epidemiological investigations -Patterns of disease occurrence and factors affecting them. - Epidemiological triad and causation of diseases	20	10	30

<p>Combating of contagious diseases</p> <ul style="list-style-type: none"> -Sources of infection. - Methods for prevention and eradication of contagious diseases (notification, isolation & quarantine). -Quarantine measures taken on imported animals, birds, their products and by-products. 	10	--	10
<p>Disinfection and disinfectants in Veterinary practice</p> <ul style="list-style-type: none"> - 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. 		20	20
<p>Air Hygiene and ventilation</p>	10	20	30

<ul style="list-style-type: none"> - Air composition and hygienic significance. - Air pollution (indoor and outdoor air pollutants) and bioremediation. - Harmful gases inside animal and poultry housing. - Environmental effects on animal health (ambient temperature, humidity, air speed, light). - Ventilation inside animal buildings (natural & artificial). 			
<p>Water hygiene</p> <ul style="list-style-type: none"> - Hygienic significance and global water sources. - Water pollution and its sources. - Water –related diseases. - Methods of water treatment (Self purification, mechanical, chemical) - Water hardness (causes, drawbacks and treatment). 	10	30	40
<p>Animal housing and disposal of animal manure</p> <ul style="list-style-type: none"> - Aim of housing and housing requirements under intensive 	10	--	10

<p>systems of production.</p> <ul style="list-style-type: none"> - Types of housing cattle (dairy& beef). - Types of housing horses. - Sheep and goat housing. - Hygienic Problems arising inside animal houses - Hygienic disposal of animal manure. 			
<p>Poultry housing and poultry hygiene</p> <ul style="list-style-type: none"> - Types of housing under intensive systems of production and hygienic requirements. -Hygienic requirements of poultry (space, temperature, humidity, light, accommodations inside houses) - Biosecurity and terminal disinfection. 	10	--	10
<p>Eradication of external parasites</p> <ul style="list-style-type: none"> - Hygienic and economic effects of ectoparasitic infestation on animals and poultry - Vectorial control of insects. - Control of ticks, mites, lice and 	10	8	18

flies. - The use of insecticides and their harmful effects.			
Total	88	88	176

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:

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

- 1- Cullen, P.T.(2000):** Farm Animal Health. A practical Guides, 1st 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. 2nd 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.
- Standard Methods for Examination of Water and Waste Water. A.P.H.A. (2005): Inc., Washington D.C., USA.
- Co. Sydney.
- 6- Lim, D. V. (1989):** Microbiology. West Publish. Co.St. Paul, USA.
 - Martin, S. W.; Meek, A. H. and Willeberg, P. (1987):** Veterinary Epidemiology. Principals and Methods. Iowa State University Press, Ames.
 - North, O. and Bell, D. (1990):** Commercial Chicken Production Manual. 4th ed. Chapman & Hall, New York, Ny, USA.
 - Linton, A. H.; Hugo, W. B. and Russell, A. D. (1987):** Disinfection in Veterinary and farm animal practice. Blackwell Scientific Publication Ltd.

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

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

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.

	Course coordinators	Head of department
Name	Prof. Dr. Ahmed Byomi	Prof. Dr. Ahmed Byomi
Signature		

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	I.S	P.P.S	G.T.S	Lect.	Pract.	Self & active leaning	Audio visual	Case study
						(a)	(b)	(c)	(d)					
Common terms and policy of disease control and prevention	2	-	8	8		1		-	1	+	-			
Epidemiology	2	2	30	20	10	2		1,2	,3,4,	+	+			
Combating of contagious diseases	2	-	10	10		3	1	-	, 4	+	-			
Disinfection and disinfectants in Veterinary practice	-	20	20	-	20	1,2,4	1,5	3	1,2,	+	+			
Air Hygiene and ventilation	2	2	30	10	20	4	4	3	1	+	+			
Water hygiene	2	2	40	10	30	1,2	2,3,4	3	1,4	+	+			
Animal housing and disposal of animal manure	2	-	10	10		1,4	2	-	3,4	+	-			

Poultry housing and poultry hygiene	2	-	10	10		1,4,	3	-	,3,4	+	-			
Eradication of external parasites	2	2	18	10	8	5	3	3	1	+	+			

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