Animal Hygiene

DIPLOMA COURSE SPECIFICATION

A. BASIC INFORMATION

University:	**University of Sadat City**
Faculty:	**Veterinary Medicine**
Program on which the course is given:	**Diploma of Animal Husbandry**
Department offering the Course:	**Department of Hygiene and Zoonoses**
Course code:	**908**
Course title:	**Animal Hygiene**
Lecture (hr/week):	**1**
Practical (hr/week):	**1**
Course coordinator:	**Prof. Dr. Ahmed Mohamed Byomi**

B. PROFESSIONAL INFORMATION

١) Overall aims of course

At completion this course, the veterinarian should be know 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

٢) Intended learning outcomes of course (ILOs)

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

a) KNOWLEDGE AND UNDERSTANDING

1. Study the terms of animal hygiene, sanitation and veterinary public health.
2. Outline the principals of prevention, control and eradication of diseases.
3. Recognize the role of hygiene in improving the health status of livestock and gaining the maximum profits from animal production.
4. State The impact of good hygiene inside animal and poultry dwellings on human health and welfare.
5. Articulate danger of exotic contagious diseases and the different strategies for control and eradication.
6. Clarify the role of the environment around the animal (especially air, water and soil) in transmission of diseases and maintenance of infection.
7. Identify the role of use of hygienic animal and poultry housing in achieving good health status and provide suitable conditions for production of healthy animal products.

INTELLECTUAL SKILLS

١. analyze data about existence, distribution, transmission and possible risk factors of disease.

٢. Discriminate the different strategies for prevention, control and eradication of the diseases.

3. Investigate the hygienic problems in the farms to provide suitable means for control.
4. Select the suitable techniques for analysis of samples in a fast and simple manner.
5. Layout a preventive strategy against infectious diseases and evaluate the economic effects of diseases.

a) PROFESSIONAL AND PRACTICAL SKILLS

1. Ascertain the disease events precisely.
2. Calculate the diseases (Incidence, prevalence, ratio of clinical to sub-clinical cases, crude

mortality, case fatality…….ect.).

3. Apply chemical disinfectants in the field situations and assessment of their efficiency.
4. Demonstrate of the environmental problems that might be responsible for transmission and maintenance of infections.
5. Interconvert management and health problems in modern poultry farms.
6. Construct the modern techniques in biosecurity.
7. Discover the biological and inorganic water and air pollutants

b) GENERAL AND TRANSFERABLE SKILL

١. Create communication, teamwork, decision-making and time management skills during the course.
٢. Enhance use of library facilities and IT tools Efficiently
٣. Improve computer skills including Microsoft word, excel, spreadsheets, presentation packages and graph plotting.
٤. Develop written assignments and oral presentations skills.

٣) Topics and contents

Topics (course No.)	**Lecture**	Practical	Total
Common terms and policy of disease control and prevention	2	--	2
Veterinary epidemiology -Uses and types of epidemiological investigations -Patterns of disease occurrence and factors affecting them. - Epidemiological triad and causation of diseases -Routes of infection and modes of transmission. - counting of disease events	6	5	11
Combating of contagious diseases -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. - Hygienic disposal of dead animals and birds.	9	8	17
Disinfection and disinfectants in Veterinary practice - 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.	2	5	7
Air Hygiene and ventilation - Air composition and hygienic significance. - Air pollution (indoor and outdoor air pollutants) and bio-remedy. - Harmful gases inside animal and poultry housing. - Environmental effects on animal health (ambient temperature, humidity, air speed, light).	6	5	11

-Ventilation inside animal buildings (natural & artificial).			
Water hygiene - Hygienic significance and global water sources. - Water pollution and its sources. - Hygienic water requirements for animals and birds. - Water –related diseases. - Methods of water treatment (Self purification, mechanical, chemical) - Water hardness (causes, drawbacks and treatment).	4	5	9
Animal housing and disposal of animal manure - Aim of housing and housing requirements under intensive systems of production. - 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.	6	5	11
Poultry housing and poultry hygiene - 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.	5	7	12
Eradication of external parasites - Hygienic and economic effects of ectoparasitic infestation on animals and poultry - Vectorial control of insects. - Control of ticks, mites, lice and flies. - The use of insecticides and their harmful effects.	4	4	8
Total	**44 hours**	**44hours**	**88**

٤) Teaching and learning methods

A- Lectures.
B- Practical.
C- Self-learning activities.

٥) Student assessment

N.B: The faculty by laws state that 50% of the grades are allocated for the written examination and the other 50% is for oral, periodical and practical examinations.

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	1-7	1,2,3,5	-	
Oral exam	1-7	1,2,3,4	-	
Practical exam	-	-	1-7	
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 activities	10%	Sample of Student activities

٦) List of references

6.1- Essential books (textbooks):

1- Cullen, P.T.(1991): 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- Last, A. M. (1983): A Dictionary of Epidemiology**.** Oxford University Press, London.

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

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

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

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

6.4- Periodicals, web site, ….ect

- Journal of Clinical. Microbiology.
- 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.
- Microbiological Review Journal.
- Journal of Microbiology.
- Berliner Und Munchner Tieraerztliche Wochenschrift.

Web sites:

- www. Vet. cornell.edu/
- www. Vetmed.ufl.edu/
- www. Vetmed.ucdavis.edu/
- www. Vetmed.auburn.edu/
- www. Oie.int/
- www.fao.org/
- www.defra.gov.uk
- www.emro.who.int/
- www.efsa.eu.int/

www.cabi-publishing.org

٧) Facilities required for teaching and learning

a. Data Show and Computers.
b. Fast internet access (ADSL System, ….etc).
c. Library access (Text Books, Periodicals, Self Learning CDs, Others).

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

Signature		

Matrix alignment of course topics and ILOs

Topic	No. Of hours		Total hours	ILOs			
	Lect.	Pract.		K.U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Common terms and policy of disease control and prevention	2	-	2	A1,2,5	-	-	d1
Veterinary epidemiology	6	5	11	A3,5,6	B1,2,3,5	C3,4,5	D1-4
Combating of contagious diseases	9	8	17	A2,4,5,6	B2,3,5	C4	D1-4
Disinfection and disinfectants in Veterinary practic	2	5	7	A1,2,3,4,6	B2,3,5	C3,4,5,6	D1-4
Air Hygiene and ventilation	6	5	11	A1,3,4,6	B1,3,4	C1,4,5,7	D1-4
Water hygiene	4	5	9	A1,3,4,6	B1,3,4	C1,4,5,7	D1-4
Animal housing and disposal of animal manure	6	5	11	A1,4,5,6	B2,3,5	C1,3,6	D1-4
Poultry housing and poultry hygiene	5	7	12	A1,4,5,6,7	B2,3,5	C1,2,3,5,6	D1-4
Eradication of external parasites	4	4	8	A1,2,4	B2,3,5	C4,6	D1-4
Total	44 hours	44 hours	88 hours				