Beni-Suef University
Faculty of Veterinary Medicine
Department of Hygiene, Zoonoses andEpidemiology

Program Specification for Ph Degree
2017-2018

A-Basic information:

Course title: *PhD VSC.,* **PhD degree of veterinary science (Animal, Poultry and Environnemental Hygiène).**

1- **Program type:** *Single*

Department offering program: Dept. of Hygiene, Management and Zoonoses.

2- **Academic year:** *2017-2018*

3- **Approval date of Department Council:**

4- **Approval date of Faculty Council:**

7-External evaluator:

B-Professional information:

1- Main goal of the program:

The aim of this program is to set doctoral students that will become researchers focusing on developing the branch of animal, poultry and Environmental hygiene to serve the community.

2- Overall aims of the program:

1. Provide doctoral students the opportunity to develop communication skills.
2. Apply the analytical approach and its use in the field of animal, poultry and Environmental hygiene.
3. Show awareness of current problems and recent theories in the field of environmental hygiene and preventive medicine
4. Perform academic and professional self-development and continuous learning.
5. Effectively communicate and lead teamwork.
6. Decision making in different professional and practical contexts.
7. Effectively use and maintain the available facilities and resources.
8. Show awareness of his/her role in community development and environmental conservation in the area of environmental sanitation and diseases prevention and control in the light of global and regional variables
9. Commit the moral and legal rules of environmental and preventive medicine.

3- Intended learning outcomes of course (ILOs):

a- Knowledge and understanding:

By the end of this PhD program the graduate should be able to:

a1- Describe advanced research techniques used in the field of animal, poultry and environmental hygiene.

a2- Summarize their knowledge and understanding of problems related to environmental hygiene and preventive medicine to the critical analysis and discussion of the scientific literature.

a3- Illustrate the legal and moral rules in Animal, Poultry and Environmental Hygiene practices.

a4- Summarize external parasites of veterinary importance; their harmful effect on animal health and performance.

a5- Familiarize with the advanced scientific means in the field of Animal, Poultry and Environmental Hygiene.

a6- Comprehend strategies of maintenance of pathogens inside the host and environment

a7- Realize the mutual influence between different professional practices and their impacts on the environment.

b- Intellectual capacity:

By the end of this PhD program the graduate should be able to:

b1. Interpret the research data and develop new approach to deal with the research questions

b2. Adapt a plan for performance enhancement in Environmental pollution & control.

b3. Utilize the available information in different practices of Animal, Poultry and Environmental Hygiene

b4. Deal with the problems related to external parasites in animal and poultry farms.

b5. Utilize novel approaches to solve technical problems associate with running and researches project.

b6. Correlate climatic changes and emergence and re-emergence of diseases.

c- Professional and practical skills:

By the end of this PhD program the graduate should be able to:

c1. perform relevant statistical analysis on data obtained for their own research.

c2. Write a report in different aspects of the field of Animal, Poultry and Environmental Hygiene with a consideration to technical, ethical and safety issues and associated costs.

c3. Master advanced techniques in different aspects of Animal, Poultry and Environmental Hygiene.

c4. Control the impacts of external parasites on animal health.

c5. Implement projects in the field of animal, Poultry and Environmental hygiene with applied impacts and benefits to the community.

c6. Perform a check list to ensure that all types of problems due to rodent were solved and judge your control program**.**

d- General and transferable skills:

On successful completion of this program the graduate should be able to:

d1- Communicate effectively using different means.
d2- Properly use the information technologies for development of his/her professional abilities.
d3- Use different facilities for gaining knowledge and information.
d4- Learn how to work effectively as part of a team and properly manage the time.
d5- Lead teamwork effectively.
d6- Understand the significance and means of continuous self-learning.

4- Academic standers:

* The faculty mission, vision and strategic objective are confirmed to the academic standard. The learning outcomes are inline with the department and the faculty mission.
* Postgraduates NARS (March 2009) degree of Doctor of philosophy chapter issued by national authority for quality assurance and accreditation of education (NAQAAE) and Veterinary medicine post graduate academic standards (ARS) for the faculty of veterinary medicine, Beni-Suef University, Beni-Suef, Egypt are selected to confirm the appropriateness of the academic standards .

ARS (National Academic Reference Standards) prepared by NAQAAE.

4- Curriculum Structure and Contents

A-Program duration: 48 weeks.

B-Program structure: 3-5 preliminary courses

☒ **Hours/ week:**

Theoretical	5-8	Practical	6-8	Total	11-16

Preliminary courses

Code	Course title	Hours /week		Academic year	Teaching duration
		theoritical	practical		
According to selected courses	Selected (3-5) PhD courses from the various Faculty Departments programs depending on the thesis title.	5-8	6-8	Preliminary year	36 weeks

D- Courses contents
See courses specification

5- Program Admission Requirements

* According to the Faculty of Veterinary Medicine, Beni-Suef University Bylaws for Post Graduate Programs, applicants should have a master degree in the specialization subject he will register in one of the Egyptian Universities or an equivalent degree from any approved university or another recognized scientific institute.
* According to Beni-Suef University requirements, all applicants for postgraduate studies should fulfill preliminary courses on the following subjects:
1-English language (Toefl or equivalent degree)

* Admission to the program is open during March and September annually.

*The faculty council has the right to suspend the student enrolment for a certain period if he has acceptable excuse preventing him from continuing his study or research.

6. Regulations for Progression and Program Completion

After finishing the preliminary courses, the graduate student will be eligible to sit for the examination according to the following roles:

No. of course teaching hours/ week	Allowed written examined time	Degree	
		Theoretical	Practical and oral exam
≥ 3 hours	3 hours	50	50
≤ 3 hours	2 hours	25	25

-The faculty council has the right to deprive the applicant from entering the exams if his attendance of the courses is less than 75%.
-Failure or depriving from entering one or more course did not requires reexamination of successful passed courses.
-The applicant should submit a seminar within 2years after registration about his research and specialization subject filed that accepted by a committee of professors and assistant professors (3 in number).

-the applicant should submit the thesis that accepted by the judging committee in an open discussion and the following polices should be met:

-pass all preliminary curriculums successfully.

-acceptance of the seminar presented by the applicant.

-The applicant should publish at least two scientific papers from the thesis in local or international journals

Qualification grades:

Excellent	≥ 90
Very good	≥80
Good	≥70
Pass	≥60
Failed	45 to less than 60 weak
	Less than 45 Very weak

After passing, the graduate starts research for Ph.D. Thesis at the beginning of the second year.

The candidate will receive his degree after evaluating and approving the thesis by a committee according to University regulations.

7-Graduate student assessment

A: Assessment Tools

According the Faculty of Veterinary Medicine, Beni-Suef University Bylaws for Post Graduate, students should be assessed at the end of preliminary year and the thesis should be evaluated and approved by a committee after at least three years from registration date according to University regulations.

1- Preliminary year

Assessments methods for each course	**practical exam**	**Oral exam**	**Written exam**
Time of Assessments	By the end of the year	By the end of the year	By the end of the year
Marks	25	25	50

2- **Ph.D. Thesis:**

The Ph.D. students should prepare a thesis in Animal, Poultry and Environmental hygiene. The department and the ethical committees must approve the protocol of

the research. The thesis includes a review part with a practical part. The thesis is supervised by two or more staff members and may include other specialties

Assessments methods	Matrix alignment of the measured ILOs			
	K&U (a)	**I.S (b)**	**P&P. S (c)**	**G&T. S (d)**
Written exam	a1,2,4,5,6	b1,2,3,45,6	C2,3,4,5	d2,3
Practical exam		b 2,3,4	c3,4,6	d4,5
Oral exam	a1,2,4,5,6	b3,45,6	c3,4	d1,4

according to the nature of the research. The thesis should be evaluated and approved by a committee according to University regulations.

B- Matrix alignment of the measured ILOs:

8- Evaluation of Program Intended Learning Outcomes

Evaluator	Tool	Sample
1. Post graduate Students	Questionnaire at the end of the program	All the PG students
2. External Evaluators	Review program and courses Attending the final exam	Once before implementation annual report
3. College Quality Assurance committee	Annual program reviewer	

Course coordinator **Head of the Department**

PhD. Program Specification Matrix (Program Courses with ILOS)

Program ILOs		courses
Knowledge and understanding	a1	**PhD -187**, **PhD -188, PhD -190, PhD -195**
	a2	**212, PhD -191, PhD -192, PhD -195**
	a3	**PhD -187, PhD -188**
	a4	**PhD -192**
	a5	**PhD -190, PhD -193**
	a6	**PhD -194, PhD –195,PhD- 177**
	a7	**PhD-120, PhD-113**
Intellectual skills	b1	**PhD -187**, **PhD -192, PhD -194 and thesis**
	b2	**PhD -187**, **PhD -189, PhD -190**
	b3	**PhD -187, PhD -189 and thesis**
	b4	**PhD -188**, **102, 96 and thesis**
	b5	**PhD -191**, **PhD -193, PhD -194 and thesis**
	b6	**PhD -195, 83**
Professional and practical skills	c1	**212 and thesis**
	c2	**PhD -187, PhD - 188, PhD -192, PhD -195 and thesis**
	c3	**PhD -192, PhD -193, PhD -194, 177**
	c4	**44, PhD -191, PhD -192 and thesis**
	c5	**PhD-190, PhD -193, PhD -194, PhD-195 and thesis**

	c6	**PhD -191, PhD -197**
General and transferable skills	d1	**PhD -189, PhD -190, PhD -195**
	d2	**PhD -187, PhD -188**
	d3	**PhD -191**
	d4	**PhD -193, PhD -195**
	d5	**PhD -189, PhD -195**
	d6	**PhD-187, PhD-190**

Program aims – ILOS Matrix for the PhD program (*PhD VSC*)

Program ILOs / Program ILOS		Program aims								
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
Knowledge and understanding	**a1**				√		√			
	a2		√							
	a3					√				
	a4							√		
	a5								√	
	a6									√
	a7	√		√						
Intellectual skills	**b1**				√					
	b2		√				√			
	b3					√			√	
	b4			√						
	b5.							√		
	b6	√								√
Practical and professional skills	**c1**									√
	c2	√				√			√	
	c3			√						
	c4				√			√		
	c5.		√							
	c6						√	√		
General and transferable skills	**d1**	√					√			
	d2									√
	d3		√							
	d4					√				
	d5				√				√	
	d6			√				√		

PhD. Program Specification Matrix (Program ILOS with Academic standers ARS)

Academic standers		Knowledge and understanding					Intellectual skills									Professional and practical skills					General and transferable skills						
Program ILOs		a1	a2	a3	a4	a5	b1	b2	b3	b4	b5	b6	b7	b8	b9	c1	c2	c3	c4	c5	d1	d2	d3	d4	d5	d6	d7
Knowledge and understanding	a1		√																								
	a2	√																									
	a3			√																							
	a4					√																					
	a5		√																								
	a6					√																					
	a7			√																							
Intellectual skills	b1								√																		
	b2							√																			
	b3								√																		
	b4							√																			
	b5													√													
	b6						√																				
Professional and practical	c1															√											
	c2																√										
	c3																		√								

skills	**c4**																	√										
	c5																	√										
	c6																			√								
General and transferable skills	**d1**																				√							
	d2																				√			√				
	d3																				√		√					
	d4																								√			
	d5																									√		
	d6																					√		√				√

Course specification of postgraduate

1-Basic information

Course Code:	**PhD-187**
Course title :	Farm Animals Hygiene (Advanced course)
Program title:	PhD degree in Animal, Poultry and Environmental Hygiene
Contact hours/ week	4 hours/ week (Lect.2h./week; Pract.2h./weeks)
Approval Date	

2-Professional information

Overall aims of course:

1- Understand the academic and practical knowledge related to: animal and environmental hygiene and how to be able to use this information to prevent spreading of diseases especially the epidemic ones.

2- The students should be able to apply methods of eradication of disease causing agents from the environment surrounding the animals and establish the suitable hygienic measures.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

a.1 Comprehend the principals of animal and environmental hygiene.
a.2 Realize the role of the environment around the animal (especially air, water and soil) in transmission of diseases and maintenance of infection.
a.3 familiarize hygienic methods of disposal of animal wastes
a.4 Illustrate the housing requirements for specific categories of animals(Horse, cattle, sheep, lab animals, etc .
a.5 Summarize the principles of prevention and control of external parasites
a.6 Realize methods of disinfection after disease outbreaks
a.7- Comprehend the principals for control of contagious diseases.
a.8 Familiarize and understand the regulations for quarantine of different categories (live animals, animal products … etc.)
a.9 Illustrate new techniques for collection different environmental samples.
a. 10 Describe stressor that can face animals in the field and new approach being followed to mitigate.

b- Intellectual skills

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

b.1 Utilize new techniques for collection and analyzing environmental samples (e.g.; air , water, soil ,etc)
b.2 Deal with problems due to poor hygiene in the farms and provide a suitable means for control.

Course specification of postgraduate

b.3 Interpret the environmental stressors in livestock farms and adaptation mechanism in animals
b.4 Correlate house design in relation to disease prevention
b.5 Relate the laws available for quarantine regulations and those should be applied in field situations .
b.6 Adapt a strategy of disease prevention, control and eradicate contagious diseases.
b.7 Utilize an integrated plan for prevention and control of external parasites in livestock farms
b.8 Interpret the hygienic problems due to rodent and methods of control
b.9 Adapt new and rapid methods for hygienic disposal of animal wastes of low coast.
b. 10 Utilize the most recent disinfectants used in the field for different conditions.

c- Professional and practical skills

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

c.1 Practice collection , preservation and examination of different environmental samples (Air, Water, Soil ,etc)
c.2 Manage environmental problems that might be responsible for transmission and maintenance of infections within the farm.
c.3 Implement high quality models of housing for different animal species to access maximum profitability.
c.4 Perform modern techniques for treatment of animal wastes.
c.5. Control different stressors found in the livestock farms.
c.6 Access the efficiency of the chemical disinfectants under field condition.
c.7 Control problem of ectoparasites resistant to insecticides and of rodents
c.8. Implement regulations for importation and exportation of animals and their product in practice.

d- General and transferable skills

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

d1 Use different resources as library, scientific periodicals.
d.2.internet and scientific associations for getting knowledge.
d.3 Communicate effectively with others.
d.4 Work in multidisciplinary team.
d.5 Prepare presentations, assay and illustrative posters.
d.6 Apply the information technology for the improvement of occupational practices.
d.7 Manage time effectively.

4-Topics and contents

Course specification of postgraduate

Course	Topic	Weeks	No. of hours	Lectures	Practical
(Lect.2 h./week, Pract. 2h./week)	Course description	1	2	2	-
	Hygienic disposal and treatment of animal wastes(mortalities, manure, biological, etc	1-5	16	6	10
	Stress and animal health (GAS)	5-7	6	6	-
	Environmental sanitation	6-16	38	18	20
	Animal Housing (cattle, sheep, horse, lab.,animals,etc	16-25	22	18	4
	Disinfection and disinfectant	18-28	20	6	14
	Principles of control of contagious diseases	29-32	8	8	-
	Control of external parasites & rodents	25-35	22	6	16
	Quarantine laws for importation of animals	36	2	2	-
	Environmental sampling	33-36	8	-	8
	Total	36 week	144	72	72

5-Teaching and learning methods

5.1. **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2**. Training visits**: to livestock farms

5.3. **Practical sections:** New techniques for collection of samples and applying the taken information under field conditions

5.4. **Self-learning:** Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in faculty library.

5.5. **Assays and presentations**

5.6. **Discussion groups**

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Written Exam	a1,2,3,4,5,6,7,8.10	b1,2,3,4,5,6	c2,7	d1,7
Practical Exam	a3,4,5,6,9	b1,2,4,7,8,9,10	c1,6,7	d6,7
Oral Exam	a1,2,3,4,5,6,7,8,10	b2,3,4.5,6,8	c5	d1,3,7

7.2. Assessment schedules

Method	Week(s)

Course specification of postgraduate

Practical exams	During December
Written exams	During December
Oral Exam	During December

7.3. Weight of assessments

Assessment	Weight of assessment
Practical exams	25
Written exams	50
Oral Exam	25
total	100

8- List of references

8.1. Notes and books

Departmental notes on:

- Text book of Animal, Poultry and Environmental Hygiene(Parts I & II) Professor/ Mohammed Abdel RahmanElbably and Dr/ AsmaaNady Mohammed

Practical notes on Animal, Poultry and Environmental Hygiene (Parts I & II)
Professor/ Mohammed Abdel RahmanElbably and Dr/ AsmaaNady Mohammed

8.2. Recommended texts

Keller R. S. (2009): The complete textbook of animal health and welfare. 1st ed. Saunders el Sevier New york

Jackson, N. S., Baker, J. K. and Greer, W. J. (2000): Animal Health Vero Media Inc. ISBN

Panda, H. (2001): Pesticides, insecticides, fungicides & herbicides. 1st ed. National Institute of Industrial. India

Prasad, J. (2002): Principles & Practices of Dairy Farm

8.3. Journals, Websites ……..etc

- **Journals:** Journal of Animal Science
- Journal Toxicology and Environmental Health
- J. Environmental monitoring and assessment
- Environmental pollution

Websites:

www.educations.com……

www.thepigsite.com/

www.disinfectants1.com

www.rvc.ac.uk

Course specification of postgraduate

Course Coordinators **Head of Department**

Course specification

	Topics	Intended learning outcomes of course (ILOs)			
	1st semester	K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Course description	-	-	-	d1,2
2	Environmental Hygiene (Air,Water&Soil)	a1,2	b2	c2	d1,2
3	Hygienic disposal and treatment of animal wastes(mortalities,manure,biological,etc	a3	b9	c4	d4
4	Stress and animal health (GAS)	a10	b3	c5	d1,2,6
5	Animal Housing (cattle, sheep, horse, lab.,animals,etc	a4	b4	c3	d3,4
6	Environmental sampling	a9	b1	c1	d4,7
7					
8					
9					
	2nd semester				
10	Disinfection and disinfectant	a6	b10	c6	d4,6
11	Control of external parasites & rodents	a5	b7,8	c6	d1,2,6
12	Principles of control of contagious diseases	a7	b6	c2	d1,2,6
13	Quarantine laws for importation of animals	a8	b5	c8	d1,2,6
14	Student activities:				d3,4,5,7
15					
16					

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	**PhD-188**
Course title :	Poultry Hygiene (Advanced course)
Program title:	PhD degree in Animal, Poultry and Environmental Hygiene
Contact hours/ week	4 hours/ week (Lect.2h./week; Pract.2h./weeks)
Approval Date	

2-Professional information

Overall aims of course:

This course aims to:

1- Understand the academic and practical knowledge related to: importance of poultry environment to its health and productivity.

2- Designing poultry farms in order of biosecurity and environmental needs.

3. Disinfection of poultry farms in order to control poultry contagious diseases and using proper insecticides to control external parasites.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

a.1 Familiarize the purposes, essential requirements and systems for poultry housing.

a.2 Realize the measurable effect of environmental stressors on poultry health and methods of mitigation .

a.3 Summarize different methods of hygienic disposal of poultry mortalities and other biological substances.

a.4 Illustrate the most suitable biosecurity plan for poultry farms in Egypt.

a.5 Realize methods of disinfection of poultry farms before and after disease outbreaks.

a.6 Comprehend the external parasites affecting layers; contributing factors and methods of control using the most recent insecticides and rodent control.

a.7 Summarize the consequences of poor hygiene in poultry farms.

b- Intellectual skills

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

b1 Deal with problems due to poor hygiene in poultry farms and provide a suitable means for control.

b.2 Interpret the environmental stressors in poultry farms and adaptation mechanism in different species of birds.

b.3 Correlate house design in relation to disease prevention and the essential requirements to apply in practice.

b.4 Utilize new methods for hygienic disposal of poultry mortalities and other biological substances.

Course specification of postgraduate

b.5 Utilize the most suitable the biosecurity plan for poultry farms in Egypt
b.6 Adapt an integrated plan for prevention and control of external parasites and rodents in poultry farms using the latest insecticides available in the field.
b.7 Compare different methods of application of disinfectants and detecting the efficient one.

c- Professional and practical skills

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

c1 Write a report about the environmental problems related to poor hygiene in poultry farms
c.2 Design and implement poultry farms concerning their essential requirements in order of biosecurity measures.
c.3 Advice a new technology for hygienic disposal and treatment of poultry wastes
c.4 Master a control program for prevention and control of external parasites exists in poultry farms and rodent.
c.5 Implement the most efficient technique for disinfection of poultry houses after an outbreak as well routine disinfection.
c.6. Control the environmental stressors in poultry farms.
c.7 Manage the problem of ectoparasites resistant to insecticides.

d- General and transferable skills

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

d1 Use different resources as library, scientific periodicals.
d.2 Internet and scientific associations for getting knowledge.
d.3 Communicate effectively with others.
d.4 Work in multidisciplinary team.
d.5 Prepare presentations, assay and illustrative posters.
d.6 Apply the information technology for the improvement of occupational practices.
d.7 Manage time effectively.

Course specification of postgraduate

4-Topics and contents

Course	Topic	Weeks	No. of hours	Lectures	Practical
(Lect.2 h./week, Pract. 2h./week)	Course description	1	2	2	-
	Hygienic disposal and treatment of poultry wastes(mortalities, manure, biological, etc	1-5	18	8	10
	Stress and poultry health (GAS)	6-9	8	8	-
	Environmental sanitation inside poultry houses	6-15	30	10	20
	Poultry Housing (purpose, plan, essential requirements, microclimate, etc	15-18	8	8	-
	Disinfection and disinfectant used inside poultry houses	16-23	24	8	16
	Systems of poultry housing	23-27	10	10	-
	Biosecurity regulations for poultry farms	24-31	14	8	6
	Control of external parasites of poultry	32-36	10	10	-
	Insecticides used for poultry farms	27-31	10	-	10
	Rodent control in poultry farms	32-34	6	-	6
	Student activity	35-36	4	-	4
	Total	36 weeks	144	72	72

5-Teaching and learning methods

5.1. **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2. **Training visits**: poultry farms

5.3. **Practical sections:** applying the taken information similar as possible to the field conditions

5.4. **Self-learning:** Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in the faculty library.

5.5. **Summer training course**

5.6. **Assays and presentations**

5.7. **Discussion groups**

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Written Exam	a1 to a7	b1,2,3,7	C1,3,4,6,7	d1,7
Practical Exam	a4,5,6,7	B4,5,6,7	C2 ,3,5,7	d6,7

Course specification of postgraduate

Oral Exam	a1 to a7	b1,3,4,7	c1,3,4,6,7	d1,3,7

7.2. Assessment schedules

Method	Week(s)
Practical exams	During December
Written exams	During December
Oral Exam	During December

7.3. Weight of assessments

Assessment	Weight of assessment
Practical exams	25
Written exams	50
Oral Exam	25
total	100

8- List of references

8.1. Notes and books

Departmental notes on:

- Text book of Animal, Poultry and Environmental Hygiene(Parts I & II) Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

Practical notes on Animal, Poultry and Environmental Hygiene (Parts I & II)
Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

8.2. Journals, Websites ……..etc

Journals:

Tropical Animal Health and Production Journal.
Veterinary Bulletin Journal.
International Journal of Poultry Science

Websites:

www.educations.com……
www.thepigsite.com/
www.disinfectants1.com
www.rvc.ac.uk

Course Coordinators **Head of Department**

Course specification of postgraduate

Beni Suef University
Faculty of Veterinary Medicine

Course specification

	Topics	Intended learning outcomes of course (ILOs)			
	1st semester	K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Course description	-	-	-	d1,2
2	Environmental Sanitation (Air,Water&Soil)	a7	b1	c1	d1,2
3	Hygienic disposal and treatment of poultry wastes	a3	b4	c3	d1,2
4	Stress and poultry health (GAS)	a2	b2	c6	d1,2
5	Poultry Housing	a 1	b 3	c2	d 1,2,5
6	Systems of poultry housing	a1	b3	c2	d1,2.5
7					
8					
9					
	2nd semester				
10	Disinfection and disinfectant	a 5	b7	c5	d3,4,7
11	Control of external parasites	a 6	b6	c4	d 4,7
12	Biosecurity in poultry farms	a4	b5	c2	d1,2,4,6
13	Insecticides	a6	b6	c7	d3,4,7
14	Rodent control	a6	b6	c4	d4,7
15	Student activities:				d3,4,5,7

Course specification of postgraduate

1-Basic information

Course Code:	**PhD-189**
Course title :	**Environmental Hygiene and Pollution**
Program title:	PhD degree in Animal, Poultry and Environmental Hygiene
Contact hours/ week	5 hours/ week (Lect.2h./week; Pract.3h./weeks)
Approval Date	

2-Professional information

Overall aims of course:
This course aims to:

1- The student should be aware of all aspects of identification of the causes and measurable effect of environmental pollution on animal health.

2- The students should be able to analyze, interpret environmental and ecological data.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

a.1 Familiarize with livestock problems related to the environment.
a.2 Comprehend different types of animal wastes, their environmental and epidemiological impacts .
a.3 Realize environmental stressors ; its impacts on animal's immunity, health and production.
a.4 illustrate animal diseases or outbreaks and its relation to environmental sanitation.
a.5 Summarize the basics of epidemiologic study.
a.6 Comprehend the role of disinfection, pest and rodent control in maintaining healthy environment
a.7 illustrate different types of environmental samples to measure environmental pollution.

b- Intellectual skills

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

b.1 Interpret and analyze the impurities which may be found in the air, water and soil and how they accumulate.
b.2 Deal with environmental data to estimate their impact on animal and human health.
b.3 Evaluate the effect of environmental pollution on animal health and production
b.4 Utilize the basics of epidemiologic study
a.5 Relate the role of disinfection, pest and rodent control in maintaining healthy environment
a.6 Utilize a novel method for treatment of different animal waste that have friendly effect on the environment.
a.7 Adapt methods to mitigate environmental stressors to improve animal health.
a.8 Interpret different types of environmental samples to measure environmental pollution.

Course specification of postgraduate

Professional and practical skills

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

c.1 Implement different methods for collection ,analyzing environmental samples.
c.2. Implement disease events precisely in relation to environmental pollution.
c.3 Perform a program for environmental safety and sanitation.
c.4 Manage and advice the different methods of disposal of animal mortalities in different situations.
c.5 Implement the basics of epidemiologic study.
c.6 Master stressors found in the animal's environment to improve its health.
c.7 Manage problems related to ectoparaites and rodents in animals premises. .
c.8 Write a report on the role of disinfection in maintaining healthy environment.

d- General and transferable skills

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

d.1Use different resources as library, scientific periodicals,
d.2internet and scientific associations for getting knowledge.
d.3Communicate effectively with others.
d.4 Work in multidisciplinary team.
d.5 Prepare presentations and illustrative posters.
d.6 Apply the information technology for the improvement of occupational practices.
d.7 Manage time effectively.

4-Topics and contents

Course	Topic	Weeks	No. of hours	Lectures	Practical
(Lect.2 h./week, Pract. 3h./week)	Course description	1	2	2	-
	Hygienic disposal and treatment of different animal species waste	1-7	26	6	21
	Environmental sanitation (gaseous impurities, biological impurities, effect of climate and animal health)	5-8	8	8	-
	Environmental hygiene (Def., Ecology, Ecosystem, pollution)	8-17	33	18	15
	Epidemiology (Def., epidemiological approaches, applications)	13-23	27	12	15
	Disinfection and disinfectant of animal premises	18-28	25	10	15
	Control of external parasites & rodents (Types of ectoparasites and control and signs of rodent infestation)	23-33	25	10	15
	Environmental stress and animal health	34-36	6	6	-
	Monitoring problems in livestock farms	28-34	20	-	21

Course specification of postgraduate

	Student activity	35-36	8	-	6
	Total	36 week	180	72	108

5-Teaching and learning methods

5.1. **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2**. Training visits**: to livestock farms

5.3. **Practical sections:**

5.4. **Self-learning:** Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in faculty library.

5.5. **Assays and presentations**

5.6. **Discussion groups**

5.7. **Seminars**

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	**I.S**	**P&P.S**	**G.S**
Written Exam	a1 to 7	b1,2,4,5,6,7,8	c3,4,6,7,8	d1,7
Practical Exam	a2,3,5,7	b1,4,5,8	c3 ,5	d6,7
Oral Exam	a1 to 7	b1to8	c1,3,6,7	d1,3,7

7.2. Assessment schedules

Method	Week(s)
Practical exams	During December
Written exams	During December
Oral Exam	During December

7.3. Weight of assessments

Assessment	Weight of assessment
Practical exams	25
Written exams	50
Oral Exam	25
total	100

8- List of references

8.1. Notes and books

Departmental notes on:

Course specification of postgraduate

- Text book of Animal, Poultry and Environmental Hygiene(Parts I & II) Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

Practical notes on Animal, Poultry and Environmental Hygiene (Parts I & II) Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

8.2. Essential books:

1. Disinfection in Veterinary and Farm Animal Practice. **Linton, A. H.; Hugo, W.**

8.3. Recommended texts

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

8.4. Journals, Websites ……..etc

- **Journals:** Journal of Animal Science
- Journal Toxicology and Environmental Health
- J. Environmental monitoring and assessment
- Environmental pollution

Websites:

www.educations.com……

www.thepigsite.com/

www.disinfectants1.com

www.rvc.ac.uk

Course Coordinators **Head of Department**

Course specification

	Topics	Intended learning outcomes of course (ILOs)			
	1st semester	K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Course description	-	-	-	d1,2
2	Environmental hygiene (Def., Ecology, Ecosystem, pollution)	a1	b2,3	c2	d1,2,6
3	Hygienic disposal and treatment of different animal species waste	a2	b6	c4	d1,2,3
4	Environmental stress and animal health	a3	b7	c6	d1,2,5
5	Environmental sanitation (gaseous impurities, biological impurities, effect of climate and animal health)	a 4	b 1	c3	d 1,2,5
6	Monitoring problems in livestock farms	a7	b8	c1	d3,4,7
7					
8					
9					
	2nd semester				
10	Disinfection and disinfectant of animal premises	a 6	b5	c8	d5,6
11	Control of external parasites & rodents (Types of ectoparasites and control and signs of rodent infestation	a 6	b5	c7	d 1,2,6
12	Epidemiology (Def., epidemiological approaches, applications	a5	b4	c5	D1,2,6
15	Student activities:	-	-	-	d3,4,5,7

Course specification of postgraduate

1-Basic information

Course Code:	PhD-190
Course title :	Control of epidemic diseases
Program title:	PhD degree in Animal, Poultry and Environmental Hygiene
Contact hours/ week	4 hours/ week (Lect.2h./week; Pract.2h./weeks)
Approval Date	

2-Professional information

Overall aims of course:

This course aims to:

1- Understand the foundation of epidemiology, epidemic study design and diagnosis of epidemic diseases.

2- The students should be able to implement a plan for emerging and exotic diseases concerning movement and trade of animals and their products and by-products.

3- Apply the epidemiological studies results in the prevention and control of the topic of his/her thesis.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

a.1 Familiarize with the aims and applications of epidemiology
a.2 Realize the fundamentals of epidemiology; methodology and analytical skills necessary
a.3 Summarize specific experiment to test hypothesis about the efficacy of preventive measures (vaccine trials, biosecurity ,etc)
a.4 Comprehend the field applications of epidemiological methods for prevention and control strategy in high risky population
a.5 Illustrate epidemiological investigations of animal diseases and different epidemiological studies.
a.6 Summarize preventive and control measures of epidemic and exotic animal diseases
a.7 Realize the role of pest and rodent control in prevention and Control of contagious diseases
a.8 illustrate the regulations and rules used for importation of living cattle for breeding and calves for slaughter and their rule to prevent entrance of exotic diseases.
a.9 Familiarize with environmental stressors affecting animal health and spreading of diseases
a10 Familiarize the recent friendly hygienic methods of disposal of animal wastes to the environment
a.11 Summarize recent techniques of disinfectant evaluation and choosing the most

Course specification of postgraduate

efficient one proper to each situation.

b- Intellectual skills

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

b.1 Adapt a study for investigating of epidemic diseases or the topic of master thesis.
b.2 Interpret the collected data about disease (cause, source, transmission , occurrence , measuring , etc)
b.3 Relate an increase of risk of diseases to host, agent and environmental determinants.
b.4 Correlate the role of vectors (external parasites and rodents) in spreading of diseases.
b.5 Deal with different stressors in animals environment to maintain their health and welfare.
b.6 Adapt the most available techniques for evaluation of different types of disinfectants.
b.7 Utilize a program for prevention, control or eradication of epidemic diseases
b.8 Differentiate the legal methods for disposal of animal wastes and mortality in the quarantine and in the farm situation and regulations to do so.

c- Professional and Practical Skills:

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

c.1 Use decision making skills to analyze animal health problems at farm and national level.
c.2 Manage locally available raw materials, conditions, rules and management structure to optimize epidemic diseases and consequently animal health and production.
c.3 Control health problems associated to climatic changes or increase stress level in the environment.
c.4 Implement an evaluation techniques to programs of vaccination , isolation , disinfection , disinfestation , rodent control, etc
c.5 Advice for more environmental friendly methods for the disposal of animal mortalities & wastes.
c.6 Manage and Re-operate livestock operations in orders of biosecurity regulations
c.7 Master the quarantine regulations for imported live animals, products and by-products to keep our country save from exotic diseases.
c.8 Implement the validity of screening and diagnostic tests for epidemic and emerging diseases.
c.9 Advice for innovative solution to problem that affect animal health.

d- General and transferable skills

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

d.1 Communicate effectively with public, colleagues and appropriate authority.
d.2 Work effectively as a member of a team in delivering the services to community.
d.3 Utilize communicating skills and have access to the internet and retrieve the information.
d.4 Be committed to ongoing learning and self-evaluation.
d.5 Increase student ability of creative thinking.
d.6 Deal with computer and Microsoft office program.

Course specification of postgraduate

4-Topics and contents

Course	Topic	Weeks	No. of hours	Lectures	Practical
(Lect.2 h./week, Pract. 2h./week)	Course description	1	2	2	-
	Hygienic disposal and treatment of animal wastes(mortalities, manure, biological, etc	1-4	12	6	6
	Investigation of epidemic diseases	4-6	10	4	6
	Principles of prevention and control of emerging and exotic diseases	7-14	16	16	-
	Quarantine measures for imported live animals and by-products of sheep, poultry and equines)	15-16	4	4	-
	Epidemiology (diagnosis of epidemic diseases)	7-24	34	12	20
	Disinfection and disinfectant(evaluation of disinfectants , factors affecting their efficiency)	16-23	14	-	14
	Control of external parasites & rodents resistant to insecticides	24-32	26	10	16
	Stress and animal health(Def., causes)	29-32	8	8	-
	Diseases (def., sources, transmission, maintenance, chain)	33-35	6	6	-
	Diseases(occurrence, measuring, diagnosis)	35-36	4	4	-
	Case study	32-36	10	-	10
	Total	36 weeks	144	72	72

5-Teaching and learning methods

5.1. **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2. **Training visits**: to livestock farms

5.3. **Practical sections:**

5.4. **Self-learning:** Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in faculty library.

5.5. **Summer training course**

5.6. **Assays, presentations and reviews**

5.7. **Discussion groups**

Course specification of postgraduate

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	**I.S**	**P&P.S**	**G.S**
Written Exam	a1 to a11.	b3,4,5,7,8	c1,2,3,7	d3,4
Practical Exam	a4,10,11	b2,6	c4,5,8	d3,5
Oral Exam	a1 to a11	b3, 4,5,7,8	c1,2,3,5,6,7,8,9	d3,5

7.2. Assessment schedules

Method	Week(s)
Practical exams	During December
Written exams	During December
Oral Exam	During December

7.3. Weight of assessments

Assessment	Weight of assessment
Practical exams	25
Written exams	50
Oral Exam	25
total	100

8- List of references

8.1. Notes and books

Departmental notes on:

- Text book of Animal, Poultry and Environmental Hygiene(Parts I & II) Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

Practical notes on Animal, Poultry and Environmental Hygiene (Parts I & II)
Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

8.2. Essential books:

- A University Press, London.
- Farm Animal Health. A practical Guides. Cullen, P.T. (1991): 1st Ed.
- Pollution in Livestock Production Systems. Dewi, A.P.; Axford, R. F. E.; Marai, I. F. M. and Omed, H. (1994): CAB International. Wallingford, UK.

Course specification of postgraduate

8.3. Recommended texts

1. Pollution Science. Pepper, I. L.; Gerba, C. P. and Prussea, M. L. (1996): Academic Press, Inc., California, and USA.
2. Principals of Cattle Production. Philips, C. J. C. (2001): CABI Publishing, Wallingford, UK.

8.4. Journals, Websites ……..etc

- **Journals:** Journal of Animal Science
- Journal Toxicology and Environmental Health
- J. Environmental monitoring and assessment
- Environmental pollution

Websites:

www.educations.com……

www.thepigsite.com/

www.disinfectants1.com

www.rvc.ac.uk

Course Coordinators **Head of Department**

Course specification

	Topics	Intended learning outcomes of course (ILOs)			
	1st semester	K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Course description	-	-	-	d2
2	Investigation of epidemic diseases	a4,5	b1	c1	d1,2
3	Hygienic disposal and treatment of animal wastes(mortalities, manure, biological, etc	a10	b8	c5	d1
4	Stress and animal health (GAS)	a9	b5	c4	d1,6
5					
6					
	2nd semester				
7	Disinfection and disinfectant	a 11	b6	c4	d4,5,6
8	Control of external parasites & rodents	a 7	b4	c4	d 5,6
9	Epidemiology	a1,2	b3	c8	d3,4
10	Quarantine laws for importation of animals, products and by-products	a8	b8	c7	d2,3
11	Principles of prevention and control of contagious, emerging and exotic diseases	a6	b7	c2	d3
12	Diseases (def., sources, transmission, maintenance, chain)	a1	b2	c6	d2,5
13	Diseases(occurrence, measuring, diagnosis	a2,3	b2	c9	d2,5
14					
15	Student activities:				d2,4,6

Course specification of postgraduate

1-Basic information

Course Code:	PhD-191
Course title :	Eradication of Rodents and disease Vectors
Program title:	PhD degree in Animal, Poultry and Environmental Hygiene
Contact hours/ week	4 hours/ week (Lect.2h./week; Pract.2h./weeks)
Approval Date	

2-Professional information

Overall aims of course:

This course aims to:

1- Understand the academic and practical knowledge related to problems caused by rodents and disease vectors to the rural community with particular emphasis given to diseases carried by them.

2- The students should be able to be provided with comprehensive information about the biology, behavior and habitat of rodents and disease vectors.

3- Provide the PhD student with a complete knowledge on alternative techniques for rodent control and other disease vector.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

a.1 Recognize and understanding of the biology, behavior and habitat of rodents,
a.2 Summarize the contributing factors to infestation, effective ways of evaluating site-specific responses
a3. Familiarize with different types of rodenticide and pesticides.
a.4 Understand Health impact of rodents and other disease vectors.

Course specification of postgraduate

a.5 Recognize character of ideal different types of rodenticide and pesticides.
a.6 Realize alternative tools or techniques for rodent control and other disease vector
a.7 Comprehend strategies, and effective communication with the public to achieve lasting change and improvements.
a.8 Summarize different sings of rodent infestation and each one belong to what rodent spp.
a. 9 Comprehend different components of IPM to control rodents in animal premises.

b- Intellectual skills

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

b.1 Deal with many herd problem related to rodent and other disease vector.
b.2 Relate any problem of less hygienic conditions and rodent and other disease vector in farm
b.3 Utilize alternative techniques for rodent control and other disease vector
b.4 Correlate each sign of rodent infestation to a specific spp. of rodent in livestock operations
b.5 Differentiate types of rodents depending on biology, behavior and habitat to be able to control it.
b.6 Adapt an integrated approach for control of rodents depending on IPM and contributing risk factors.
b.7 Utilize new technique for application of the chosen rodenticide based on their ideal characteristics.
b.8 Adapt different methods to prevent re-infestation and keep rodents out of animal premises.

c- Professional and Practical Skills:

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

C.1 Mange rodent infestation depending on environmental and ecological factors.
c.2 Use an illustrative farm design to identify breeding sites of rodents and baits sites.
C.3 Implement of ideal baits and rodenticides according to appropriate places and timing.
c.4 Write a report including sings of rodent infestation and the type of rodents for proper control of heavy rodent infestation in livestock operations.
c.5 Master a control plan to prevent re-infestation of animal premises and use all protective measure to ensure that.
c.6 Write a report on the success of IPM as control program inside farm.
c.7 Perform a check list to ensure that all types of problems due to rodent were solved and judge your control program.

d- General and transferable skills

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

d.1Use different resources as library, scientific periodicals,
d.2internet and scientific associations for getting knowledge.
d.3Communicate effectively with others.
d.4 Work in multidisciplinary team.
d.5 Prepare presentations and illustrative posters.
d.6 Apply the information technology for the improvement of occupational practices.
d.7 Manage time effectively.

Course specification of postgraduate

4-Topics and contents

Course	Topic	Weeks	No. of hours	Lectures	Practical
(Lect.2 h./week, Pract. 2h./week)	Course description	1	2	2	-
	Types of Rodent Problems (Health, economical & epidemiological aspects)	2-6	10	10	-
	Rodent Facts(Feeding Habits biology, behavior and habitat of rodents,	1-10	12	8	4
	Identifies the rodent species.	3-14	12	8	4
	Contributing factors of rodent infestation	5-18	12	8	4
	Recognizing Mouse Infestations	7-22	12	8	4
	Preventive measures of rodents	9-27	14	10	4
	IPM (Inspection/ monitoring, Identification, Establishment of threshold levels: Implementation of two or more control measures Measurement and evaluation::	11-36	36	18	18
	Rodenticides (definition, classification, mode of action, applications)	20-25	12	-	12
	Characteristics of ideal rodenticide & method of application	26-30	10	-	10
	Precautionary measures of rodenticides applications(Mask, clothes,etc)	31-34	8	-	8
	Case study	35-36	4	-	4
	Total	36 weeks	144	72	72

5-Teaching and learning methods

5.1. **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2**. Training visits**: to quarantine, livestock farms

5.3. **Practical sections:**

5.4. **Self-learning:** Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in faculty library.

5.5. **Summer training course**

5.6. **Assays and reviews**

5.7. **Discussion groups**

7-Student assessment

Course specification of postgraduate

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	**I.S**	**P&P.S**	**G.S**
Written Exam	a1,2,4,6,7,8,9	b1,2,3,6,8	c1,4,5,6	d1,7
Practical Exam	a1,2,3,5,8	b4,5,6,7	c2,3	d6,7
Oral Exam	a1 to a9	b1,2,4,5,6,8	c1,5	d1,3,7

7.2. Assessment schedules

Method	Week(s)
Practical exams	During December
Written exams	During December
Oral Exam	During December

7.3. Weight of assessments

Assessment	Weight of assessment
Practical exams	25
Written exams	50
Oral Exam	25
total	100

8- List of references

8.1. Notes and books

Departmental notes on:

- Text book of Animal, Poultry and Environmental Hygiene(Parts I & II) Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

Practical notes on Animal, Poultry and Environmental Hygiene (Parts I & II)
Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

8.2. Essential books:

- Rodent pests and their control, Buckle, A. P., Smith, R. H., CAB International (2006)
- Rodent Control: A Practical Guide for Pest Management Professionals, Robert Corrigan , Dan Moreland GIE Inc., (2001).
- Rodent Pests and Their Control ,A. P. Buckle , R. H. Smith, CABI (1994)
- Control of Disease Vectors in the Community (Paperback)by C.F. Curtis Mosby (1991).

8.3. Journals, Websites ……..etc

- Environmental pollution

Websites:

Course specification of postgraduate

www.educations.com……

www.rvc.ac.uk

Course Coordinators **Head of Department**

Course specification

	Topics	Intended learning outcomes of course (ILOs)			
	1st semester	K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Course description	-	-	-	d1
2	Types of Rodent Problems (Health, economical & epidemiological aspects)	A4	B1,2	C7	D2
3	Rodent Facts(Feeding Habits biology, behavior and habitat of rodents,	A1	B5	C2	D1,2
4	Identifies the rodent species.	A8	B4	C4	D1,2
5	Contributing factors of rodent infestation	A2	B6	C1	D1,2,6
6	Recognizing Mouse Infestations	A8	B4	C4	D2,6
	2nd semester				
7	Preventive measures of rodents	a 6	B3	C5	D3,7
8	IPM (Inspection/ monitoring, Identification, Establishment of threshold levels:	a 9	B6	C6	d 3,7
9	Rodenticides (definition, classification, mode of action, applications)	a3	B7	C3	D2,6
10	Characteristics of ideal rodenticide & method of application	A5	B7	C3	D1,2
10	Precautionary measures of rodenticides applications(Mask, clothes,etc)	A7	B8	C5	D3,4,7
11	Student activities:				D1, 2,4,7

Course specification of postgraduate

1-Basic information

Course Code:	PhD-192
Course title :	Insecticides and public health.
Program title:	PhD degree in Animal, Poultry and Environmental Hygiene
Contact hours/ week	4 hours/ week (Lect.2h./week; Pract.2h./weeks)
Approval Date	

2-Professional information

Overall aims of course:

This course aims to:

1- Understand the comprehensive information about classification and properties of different type of insecticides.
2- Recognize insecticides; chemistry, metabolism and mode of action; selectivity, use hazards, residues and resistance

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

a.1 Summarize external parasites of veterinary importance; their harmful effect on animal health and performance
a.2 Comprehend insect life cycle in sexual and asexual stages on animal and surrounding environment.
a.3 Realize contributing factors and general preventive measures of external parasitism.
a.4 Summarize the body parts of animals frequently infested by external parasites
a.5 Understand vector borne diseases of zoonotic & contagious importance.
a.6 Summarize different types of insecticides & their characteristics.
a.7 Illustrate different mode of actions, and method of application of different insecticides.
a.8 Familiarize with reasons of pest resistance among different groups of insecticides.
a.9 Illustrate the best IPM program for control of different external parasites of veterinary importance..
a.10 Realize different methods for monitoring the efficiency of insecticides.

b- Intellectual skills

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

b.1 Relate and Identify any herd problem related to insects.
b.2 Interpret the consequence of pest infestation for livestock .
b.3 Differentiate insecticides according to their characteristics, mode of action, applications, etc.
b.4 Interpret the efficacy of insecticides both in vitro and under field conditions.

Course specification of postgraduate

b.5 Correlate insect resistance to pesticides.
b.6 Utilize information about the breeding sites of insects & infested body parts to make successful IPM program.
b.7 Adapt preventive and control measures of pests .
b.8 Interpret methods of insecticide application and precaution to use.

c- Professional and Practical Skills:

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

c.1 Master the external parasites of veterinary importance in different animal operation.
c.2 Manage the contributing factors and breeding sites of ectoparasites
c.3 Advice for the different types of insecticides based on their characteristics
c.4 Advice the recent techniques in the application of pesticides and precaution to use.
c.5 Implement and monitor action and potency of insecticide.
c.6 Implement an IPM a program for prevention and control of external parasites in livestock operations. .
c.7 Write a report on the efficiency of insect control procedure inside the farm.
c.8 Mange the pest resistance to insecticides and trying to solve this problem.

d- General and transferable skills

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

d.1 Communicate effectively with public, colleagues and appropriate authority.
d.2Work effectively as a member of a team in delivering the services to community.
d.3 Utilize communicating skills and have access to the internet and retrieve the information.
d.4 Be committed to ongoing learning and self-evaluation.
d.5 Increase student ability of creative thinking.
d.6 Deal with computer and software programs
d.7 Utilize new technological tools.
d.8 Written assays on the current veterinary hygienic problems

4-Topics and contents

Course	Topic	Weeks	No. of hours	Lectures	Practical
(Lect.2 h./week, Pract. 2h./week)	Course description	1	2	2	-
	Insecticides(Def., classification, mode of action, ,characteristics, etc.)	1-7	24	10	14
	Insecticides (applications, precautions,	7-12	20	10	10
	External parasites of veterinary .importance., classification , life cycle , their impacts	12-19	28	16	12
	Pest regulations	20-25	12	12	-
	Principles of prevention and control of external parasites in livestock farms	26-35	18	18	-
	Pest resistance to insecticides	35-36	12	4	8
	IPM (Inspection/ monitoring, Identification,	19-24	12	-	12

Course specification of postgraduate

	Establishment of threshold levels: Implementation of two or more control measures Measurement and evaluation::				
	Monitoring the efficacy of insecticides	25-28	8	-	8
	Student activity	29-33	8	-	8
	Total	36 week	144	72	72

5-Teaching and learning methods

5.1. **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2**. Training visits**: to livestock farms

5.3. **Practical sections:**

5.4. **Self-learning:** Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in faculty library.

5.5. **Summer training course**

5.6. **Assays, presentations and reviews**

5.7. **Discussion groups**

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	**I.S**	**P&P.S**	**G.S**
Written Exam	a1,2,35,6,7,8,9	b1,5,67,8	c1,2,6,7,8	d3,8
Practical Exam	A4,5,6,10	b3,4,8	c3,4,5	d2,5
Oral Exam	a1toa10	b1tob8	c1toc8	d1,5

7.2. Assessment schedules

Method	Week(s)
Practical exams	During December
Written exams	During December
Oral Exam	During December

7.3. Weight of assessments

Assessment	Weight of assessment
Practical exams	25
Written exams	50
Oral Exam	25
total	100

Course specification of postgraduate

8- List of references

8.1. Notes and books

Departmental notes on:

- Text book of Animal, Poultry and Environmental Hygiene(Parts I & II) Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

Practical notes on Animal, Poultry and Environmental Hygiene (Parts I & II)

Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

8.2. Essential books:

- Handbook of Biological Control: Principles and Applications of Biological Control, T. W. Fisher Thomas S. Bellows , L. E. Caltagirone , D. L. Dahlsten, Carl B. Huffaker , G. Gordh , Academic Press; 1st edition (1999)
- The chemistry and toxicology of insecticides, Harold H Shepard, Burgess publishing co (1993)
- Veterinary Hygiene by Robert Georg Linton (Paperback - 8 Jan 2010)

8.3. Websites ……..etc

Websites:

www.educations.com……

www.thepigsite.com/

www.rvc.ac.uk

Course Coordinators **Head of Department**

Course specification

	Topics	Intended learning outcomes of course (ILOs)			
	1st semester	K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Course description	-	-	-	d1,2
2	Insecticides(def.,classification,mode of action, ,characteristics, etc	a6	b3	c3	d3,4
3	Insecticides (applications, precautions,	a4,7	b8	c4	d3,4
4	External parasites of vet .importance., classification	a1,2	b1	c1	d3,4,6
5	Pest regulations	a5	b2	c2	d3,6,7
6	Principles of prevention and control of external parasites in livestock farms	a3	b7	c7	d5
	2nd semester				
7	Pest resistance to insecticides	a 8	b5	c8	d4,5
8	IPM (Inspection/ monitoring, Identification, Establishment of threshold levels:	a 9	b6	c6	d 1,2,5
9	Monitoring the efficacy of insecticides	a10	b4	c5	d1,2,6
11	Student activities:	-	-	-	d1,2,8

Course specification of postgraduate

1-Basic information

Course Code:	PhD-193
Course title :	Hygiene of Animal Enclosures.
Program title:	PhD degree in Animal, Poultry and Environmental Hygiene
Contact hours/ week	3 hours/ week (Lect.2h./week; Pract.1h./weeks)
Approval Date	

2-Professional information

Overall aims of course:

This course aims to:

1- Recognize the purposes and essentials for proper planning for animal house.
2- Acquire information about appropriate house for different animal species.
3- Know advantages and disadvantages of each one.
4- Recognize and Identify potential hazards in animal housing.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

a.1 Summarize knowledge about the purposes and essential of properly planning of animal housing.
a.2 Illustrate biosecurity regulations for livestock farms & operations.
a.3 Realize housing & environmental conditions for different animal species , ages and production status
a.4 Realize the different types of stress that may affect animal species and their causes.
a.5 Familiarize with the faults in disposal of animal wastes and mortalities and the best method for each animal species.
a.6 Comprehend knowledge about methods of air, water & environmental sampling and examination
a.7 Illustrate different groups of disinfectants and identify the factors affecting its efficiency.
a.8 Comprehend the common causes of tick, lice and mite infestations in animal enclosures and who to deal with.

b- Intellectual skills

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

b.1 Correlate the effect of air and water inside animal enclosures and their health.
b.2 Adapt the different essentials of properly planning of different animal farms.
b.3 Interpret and implement animal houses in relation to species, ages , production status, locality , etc .
b.4 Differentiate the different types of environmental stressors that may affect animal species and their causes and their fate.

Course specification of postgraduate

b.5 Utilize efficient methods of disposal and treatment of animal wastes according to animal species.
b.6 Interpret the efficacy of different groups of disinfectants in animal buildings.
b.7 Utilize fences ,gates , vehicles , rodents, people to maintain high level of biosecurity.
b.8 Correlate spreading of Tick, lice and mite infestations due to faults in hosing system.

Professional and practical skills

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

c.1 Implement and monitor the environmental problems due to air and water in livestock farms
c.2 Advice for proper designing of animal farms based on biosecurity regulations.
c.3 Master the most appropriate mean of hygienic disposal of animal wastes of different animal spp. based on type of production
c.4 Manage the design of animal enclosure as a form of preventive medicine.
c.5 Implement the essentials, planning of the housing to maintain animal health and hygiene.
c.6 Master the factors affecting the efficiency of disinfection process inside animal houses.
c.7 Control the problem of external parasitism of livestock.
a.8 Write a report on the different types of environmental stressors that may affect animal species and their causes and their fate.

d- General and transferable skills

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

d.1 Use different resources as library, scientific periodicals,
d.2 internet and scientific associations for getting knowledge.
d.3 Communicate effectively with others.
d.4 Work in multidisciplinary team.
d.5 Prepare presentations and illustrative posters.
d.6 Apply the information technology for the improvement of occupational practices.

4-Topics and contents

Course	Topic	Weeks	No. of hours	Lectures	Practical
(Lect.2h./week, Pract. 1 h./week)	Animal housing (aims, essentials, components, fittings, microclimate factors ,planning & implementation)	1-5	5	-	5
	Hygienic disposal dead animals (composting burial) and treatment of animal wastes(alternative methods)	1-8	13	10	3
	Stress and animal health(type, fate, causes)	9-10	2	-	2
	Environmental hygiene (air, water hygiene and animal health)	6-15	23	18	5
	Biosecurity(conceptual, structural, operational)	15-20	13	8	5
	Disinfection (type of disinfectants groups,	19-28	25	20	5

Course specification of postgraduate

	factors affecting its efficiency)				
	Control of external parasites (control of tick, mite and lice)	26-31	11	6	5
	Systems of animal housing (different species, ages ,production, special accommodation, distribution,etc	31--36	6	-	6
	Student activity	32-36	10	10	-
	Total	36 weeks	108	72	36

5-Teaching and learning methods

5.1. **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2**. Training visits**: to livestock farms

5.3. **Practical sections:**

5.4. **Self-learning:** Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in faculty library.

5.5. **Summer training course**

5.6. **Assays, presentations and reviews**

5.7. **Discussion groups**

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	**I.S**	**P&P.S**	**G.S**
Written Exam	a1,2,3,4,5,7,8	b1 to b8	c1,2,3,4,5,8	d1,2
Practical Exam	a6,7,8	b1,5,6,7	c3,6,7	d6
Oral Exam	a1,2,3,4,5,7,8	b1 to b8	c1,2,3,5,7	d3,4

7.2. Assessment schedules

Method	Week(s)
Practical exams	During December
Written exams	During December
Oral Exam	During December

Course specification of postgraduate

7.3. Weight of assessments

Assessment	Weight of assessment
Practical exams	25
Written exams	50
Oral Exam	25
total	100

8- List of references

8.1. Notes and books

Departmental notes on:

- Text book of Animal, Poultry and Environmental Hygiene(Parts I & II) Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

Practical notes on Animal, Poultry and Environmental Hygiene (Parts I & II)
Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

8.2. Essential books:

- Horse Housing: How to Plan, Build, and Remodel Barns and Sheds, Richard Klimesh , Cherry Hill, Trafalgar Square Books (2002)
- Farm Animal Well-Being: Stress Physiology, Animal Behavior and Environmental Design, Solon A. Ewing, Donald C. Lay Prentice Hall (1998).
- Animal Health and Housing. "David Sainsbury" Blackwell Science 2000.

8.3. Recommended texts

- Herd health, W.B Saunres Company (1994). Basic Husbandry Practices and Veterinary Care, Jaime Ronquillo, David Abbass, Evelyn Mathias , human development library (2000)
- Veterinary Hygiene by Robert Georg Linton (Paperback - 8 Jan 2010)

8.4. Journals, Websites ……..etc

Journals:

- Journal of Animal Science
- J. Environmental monitoring and assessment

Websites:

www.educations.com……

www.thepigsite.com/

www.disinfectants1.com

www.rvc.ac.uk

Course Coordinators **Head of Department**

Course specification of postgraduate

Course specification

	Topics	Intended learning outcomes of course (ILOs)			
	1st semester	K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
2	Environmental Hygiene (Air,Water&Soil)	a6	b1	c1	d1,2
3	Hygienic disposal and treatment of animal wastes(mortalities, manure, biological, etc	a5	b5	c3	d4
4	Stress and animal health (GAS)	a4	b4	c8	d1,2
5	Animal housing (aims, essentials, components, fittings, microclimate factors ,planning & implementation)	a 1	b 2	c5	d 6
6	Systems of animal housing (different species, ages ,production, special accommodation, distribution,etc	a3	b3	c4	d1,3
7					
	2nd semester				
8	Disinfection and disinfectant	a 7	b6	c6	d4,5
9	Control of external parasites (control of tick, mite and lice)	a 8	b8	c7	d 4,5
10	Biosecurity	a2	b7	c2	d1,2
11	Student activities:				d5,6

Course specification of postgraduate

1-Basic information

Course Code:	PhD-194
Course title :	Disinfectants and disinfection
Program title:	Master degree in Animal, Poultry and Environmental Hygiene
Contact hours/ week	4 hours/ week (Lect.2h./week; Pract.2h./weeks)
Approval Date	

2-Professional information

Overall aims of course:

This course aims to:

1- Acquire knowledge about that disease prevention is better through right application of biosecurity measures, vaccination and disinfection which consider the cornerstone for any prevention and control program.
2- Setup a plan for disinfection of livestock farms after an outbreak of contagious diseases.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

a.1 Familiarize with the general purpose of disinfection and it is the foundation of any prevention or control program.
a.2 illustrate the different sources and ways of spreading of diseases
a.3 Realize disinfectant terminology and standardization.
a.4 Summarize basis for the selection of disinfectants and procedure for their application
a.5 Illustrate the characteristics of disinfectants information on the label and precautions to use.
a.6 Realize the susceptibility of each pathogen to different disinfectants.
a.7 Illustrate steps of terminal disinfection of poultry farms.
a.8 Familiarize with steps of disinfection of animal premises with and without diseases.
a.9 Illustrate the procedure to disinfect lad animal house.

b- Intellectual skills

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

b.1 Differentiate the steps of disinfection of animal house in case of a disease and without a disease.
b.2 Interpret information about disease producing agents, other risk factors & their susceptibility to disinfectants.
b.3 Adapt new techniques to standardize disinfectant and be sure of information available on the label.
b.4 Differentiate between disinfectants according to their efficiency against different pathogenic agents & under field conditions.

Course specification of postgraduate

b.5 Utilize a method for disinfection of poultry and lab animal houses.
b.6 Interpret and monitor the susceptibility of highly pathogenic pathogens to disinfectants
b.7 Compare and monitor the different types of disinfection procedures

Professional and practical skills

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

c.1 Perform the in vitro sensitivity testing of pathogens to disinfectant
c.2 Practice preparation of poultry and lab animals farms to disinfection (dry & wet cleaning, sweeping & scrubbing).
c.3 Implement a reliable technique used for standardization of used disinfectant.
c.4 Obtain all the needed information about the disinfectant used from label and precautions to use it.
c.5 Manage a plan for disinfection procedures of the farm, water tanks, store room, soil, etc
c.6 Implement of terminal disinfection to hatcheries , poultry farms maternity & isolation box
c.7 Control the problems of factors hindering the susceptibility of pathogens to disinfectants such as water hardness, organic matter, etc
c.8 Master all the information about disease producing agents their virulence, resistance and surviving the disinfection process.
c.9 Implement and follow up the efficiency of disinfection process with and without disease.

d- General and transferable skills

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

d.1Use different resources as library, scientific periodicals,
d.2 Internet and scientific associations for getting knowledge.
d.3Communicate effectively with others.
d.4 Work in multidisciplinary team.
d.5 Prepare presentations and illustrative posters.
d.6 Apply the information technology for the improvement of occupational practices.
d.7 Manage time effectively.

4-Topics and contents

Course	Topic	Weeks	No. of hours	Lectures	Practical
(Lect.2 h./week, Pract. 2h./week)	Diseases causing agents (Reservoir, survival, virulence, resistance, chain of infection,	1-7	14	14	-
	Disinfection (Purposes, pathogens targeted & resistance,)	1-14	26	14	12
	Disinfection (basics, procedure, selection& application of disinfectant, increasing disinfectant efficiency	7-22	28	16	12
	Disinfection of livestock farms with and without diseases	13-39	24	14	10
	Disinfection of poultry farms (terminal disinfection)	18-34	20	10	10
	Disinfection of laboratory animal houses	23-36	8	4	4
	Standardization of disinfectants	25-29	10	-	10
	Susceptibility of pathogens to disinfectant & disinfection	30-32	6	-	6

Course specification of postgraduate

	Disinfectant (Labeling, storing, checking, toxicity, expiry, symbol)	33-36	8	-	8
	Total	36	144	72	72

5-Teaching and learning methods

5.1. **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids.

5.2**. Training visits**: a farm

5.3. **Practical sections:**

5.4. **Self-learning:** Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in the faculty library.

5.5. **Summer training course**

5.6. **Assays and reviews**

5.7. **Discussion groups**

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	**I.S**	**P&P.S**	**G.S**
Written Exam	a1,2,6,7,8,9 3	b1,2,4,5	c3,4,5,6,7	d1,7
Practical Exam	a 1,3,4	b3,4,6,7	c1,2,3,7	d6,7
Oral Exam	a1,2,6,7,8,9	b1,2,4,5	c3,4,5,6,7	d1,3,7

7.2. Assessment schedules

Method	Week(s)
Practical exams	During December
Written exams	During December
Oral Exam	During December

7.3. Weight of assessments

Assessment	Weight of assessment
Practical exams	25
Written exams	50
Oral Exam	25
total	100

8- List of references

Course specification of postgraduate

8.1. Notes and books

Departmental notes on:

- Text book of Animal, Poultry and Environmental Hygiene(Parts I & II) Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

Practical notes on Animal, Poultry and Environmental Hygiene (Parts I & II)

Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

8.2. Essential books:

- Disinfection in Veterinary and Farm Animal Practice, Linton, WileyBlackwell (1987)
- Preventive Veterinary Medicine, Reinhard Böhm and Brian Cook, Published by Elsevier Science B.V. (1996).

8.3. Journals, Websites ……..etc

Journals:

- Journal of Animal Science

Websites:

- www.educations.com
- www.thepigsite.com/
- www.disinfectants1.com
- www.rvc.ac.uk

Course Coordinators **Head of Department**

Course specification

	Topics	Intended learning outcomes of course (ILOs)			
	1st semester	K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
2	Diseases causing agents (Reservoir, survival, virulence, resistance, chain of infection,	**a2**	**b2**	**c8**	**d1,2**
3	Disinfection (Purposes, pathogens targeted & resistance, materials to be disinfectant; nature ,hindering factors,etc	**a1**	**b4**	**c1**	**d5,6**
4	Disinfection (basics, procedure, selection& application of disinfectant, increasing disinfectant efficiency	**a4**	**b7**	**c5**	**d6**
5	Disinfection of livestock farms with and without diseases	**a 8**	**b 1**	**c9**	**d1,2**
6	Disinfection of poultry farms (terminal disinfection)	**a7**	**b5**	**c2,6**	**d4,6**
7					
	2nd semester				
8	Disinfection of laboratory animal houses	**a 9**	**b5**	**c2**	**d4,6**
9	Susceptibility of pathogens to disinfectant & disinfection	**a6**	**b2,6**	**c7**	**d2**
10	Standardization of disinfectants	**a3**	**b3**	**c3**	**d1**
11	Disinfectant (Labeling, storing, checking, toxicity, expiry, symbol, recommendation ,precautionary measures)	**a5**	**b3**	**c4**	**d1,2,3**

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	PhD-195
Course title :	**Control of Contagious Disease**
Program title:	PhD degree in Animal, Poultry and Environmental Hygiene
Contact hours/ week	2 hours/ week (Lect.2h./week; Pract.0h./weeks)
Approval Date	

2-Professional information

Overall aims of course:

1- Understand the academic and practical knowledge related to: description of the disease events precisely.
2- Identify methods of assessing disease determinants.
3- Apply risk assessment to put a strategy for disease prevention, control and eradicate infectious diseases.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

a1. Illustrate how diseases arise and spread and their source.
a2. Comprehend strategies of maintenance of pathogens inside the host and environment.
a3. Realize the relation between climate change and emerging of diseases.
a 4. Familiarize with surveillance systems of diseases.
a5. Realize the role of effective disinfection in controlling highly contagious diseases.
a6. Summarize the principles of control of contagious diseases.
a7. Illustrate quarantine regulations for imported live animals, products and by-products.

b- Intellectual skills

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

b1. Correlate host parasite relationship and the spreading of diaeses.
b2. Adapt strategies of maintenance of agents to be able to control them in the environment and host.
b3. Correlate climatic changes and emergence and re-emergence of diseases.
b4. Utilize a surveillance system for prediction of diseases occurrence.
b5. Adapt novel techniques for control and prevention of contagious and highly contagious diseases.
b6. Interpret the efficiency of disinfection process in elimination of disease agents.
b7. Correlate occurrence of some diseases and illegal importation of live animals or their products.

c- Professional and practical skills

Beni-Suef University
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Course specification of postgraduate

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

c1. Implement diseases types, sources, ways of spreading and host parasite relationship to access controlling them.

C2. Use strategies of maintenance of pathogens in their hosts and in the environment to able to tract them and eliminate them.

C3. Write a report on climatic changes and emerging and re-emerging diseases.

C4. Master an efficient surveillance system to predict, diagnose and tract contagious diseases.

c5. Implement a program that utilize all the collected data and surveillance program to control contagious diseases.

c6Avice recent and available efficient disinfectants in the field for disinfection of animal houses with highly contagious diseases..

c7. Master quarantine laws and regulations for importation of animals and their products.

d- General and transferable skills

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

d1. Communicate effectively with public, colleagues and appropriate authority.

d2. Work effectively as a member of a team in delivering the services to community.

d3. Utilize communicating skills and have access to the internet and retrieve the information.

d4. Be committed to ongoing learning and self-evaluation.

d5. Increase student ability of creative thinking.

d6. Deal with computer and software programs

4-Topics and contents

Course	Topic	Weeks	No. of hours	Lectures	Practical
(Lect.2 h./week, Pract. 0h./week)	Course description	1	2	2	-
	Diseases(types ,Sources, how diseases arise &spread, Host-parasite relationship, etc ,	2-6	10	10	-
	Strategies of maintenance of pathogenic agents	7-10	8	8	-
	Climatic changes(emerging & re-emerging diseases)	11-16	12	12	-
	Surveillance system & its application in risk analysis	17-20	8	8	-
	Principles of prevention & control of contagious diseases (Stages in epidemic, degree of infection, etc.)	21-25	10	10	-
	Disinfection & emerging of highly contagious diseases (Viral ,fungal , etc)	26-32	14	14	-
	Quarantine regulations for imported live animals, products & by-products	33-36	8	8	-

Course specification of postgraduate

	Total	36	72	72	-

5-Teaching and learning methods

5.1- Lectures (brain storm, discussion) using board, data shows
5.2- Self learning by preparing essays and presentations (Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in faculty library).
5.3- Practical sections
5.4- Training visits: to quarantine, animals and poultry farms
5.5- Summer training course
5.6- Assays and reviews

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Written Exam	a1 to a7	b1-b7	c1toc7	d3,6
Practical Exam	-	-	-	-
Oral Exam	a1 to a7	b1-b7	c1,2,4,5,6,7	d1,5

7.2. Assessment schedules

Method	Week(s)
Practical exams	-
Written exams	During December
Oral Exam	During December

7.3. Weight of assessments

Assessment	Weight of assessment
Practical exams	-
Written exams	70
Oral Exam	30
total	100

8- List of references

8.1. Notes and books

Departmental notes on:

- Text book of Animal, Poultry and Environmental Hygiene(Parts I & II) Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

Practical notes on Animal, Poultry and Environmental Hygiene (Parts I & II)
Professor/ Mohammed Abdel Rahman Elbably and Dr/ Asmaa Nady Mohammed

Course specification of postgraduate

8.2. Essential books:

- Veterinary clinical epidemiology. Ronald D. Smith (Taylor & Francis (2006)
- Introduction to environmental epidemiology, Evelyn O. Talboott, (1995).
- Animal Disease Surveillance and Survey Systems: Methods and Applications, Mo Salman. Wiley-Blackwell; 1st edition (2003)
- Herd health, W.B Saunres Company (1994).

8.3. Recommended texts

- Veterinary Epidemiology: Principles and Methods, S. Wayne Martin, Alan H. Meek, Preben Willeberg, Iowa State Press; 1st edition (1987)

8.4. Journals, Websites ……..etc

Journals:

- Journal of Animal Science
- J. Environmental monitoring and assessment
- Environmental pollution

Websites

- http://www.vetmed.wisc.edu
- http://www.WHO.int/en/
- http://www.CDC.com/
- http://www.OIE.com

Course Coordinators **Head of Department**

Course specification

	Topics	Intended learning outcomes of course (ILOs)			
	1st semester	K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Course description	-	-	-	d3,4
2	Diseases(types ,Sources, how diseases arise &spread, Host-parasite relationship, etc ,	a1	b1	c1	d3,6
3	Strategies of maintenance of pathogenic agents	a2	b2	c2	d3,6
4	Climatic changes(emerging & re-emerging diseases)	a3	b3	c3	d3,6
	2nd semester				
5	Surveillance system & its application in risk analysis	a4	b4	c4	d5
6	Principles of prevention & control of contagious diseases (Stages in epidemic, degree of infection, etc.)	a6	b5	c5	d2,3
7	Disinfection & emerging or highly contagious diseases (Viral ,fungal , etc)	a5	b6	c6	d5,6
8	Quarantine regulations for imported live animals, products & by-products	a7	b7	c7	d2