Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	
Course title:	**animal by products**
Program title:	Postgraduate Diploma of Animal byproducts
Contact hours/ week	Lecture:2 practical:2 total:4
Approval Date	12-9-2017

2-Professional information

Overall aims of course:

This course aims to:

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

1- understand the academic and practical knowledge relatedto types ofanimal byproducts, and byproduct treatment
2- outline how to treat edible meat and offal
3- differentiate between the methods of utilization of edible and inedible animal byproducts.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

a1- Enumerate the types of animal byproducts.
a2-list benefits of byproducts treatment .
a3-recognize byproducts unit premises.
a4- Recognize the hygienic requirements for animal waste plant.
a5- Summarize the methods used in byproducts treatment.
a6- Recognize theinedible rendering process.

b-Intellectual skills

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

b1- Assess theactivated sludge process.
b2- Explain different methods of byproducts treatment.
b3- Distinguish edible and inedible animal byproducts.
b4- Take decisions to prevent nuisance.

C- Professional and practical skills

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

c1- Differentiate between edible and inedible byproducts.
c2- Hygienicallytreat the condemned meat and offal.
c3- Utilize theanimal byproducts.
c4- Apply thehygiene standardsinside an animal waste processing plants.
c5- Get experience in activated sludge process.

d- General and transferable skills

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

Course specification of postgraduate

d1-Properly use computer and internet skills.
d2- Appreciate the importance of group working and cooperation.
d3-Properly communicate with others.
d4- Enhance his/her effective presentation skills.

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
(Lec. 2h./week, Pract2h./week)	Introduction	4	2	2
	Edible byproducts	8	4	4
	Benefits from the byproducts utilization	10	5	5
	Byproducts unit premises	10	5	5
	Byproducts treatment	20	10	10
	Treatment of condemned meat and offal	18	9	9
	Hygiene requirements for animal waste processing plants	20	10	10
	Inedible rendering processes	10	5	5
	Treatment of effluent	24	12	12
	Activated sludge process	10	5	5
	Prevention of nuisance	10	5	5
	Student activities: - Abattoir and food plants visits. - Dairy farms and plants visits - Writing assays - Internet search			
	Total	144	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 (computer researches and library)
5.3- Practical (models, and data show).

- **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids.
- **Training visits**: to abattoirs of animals and poultry.
- **Practical sections:**
- **Self-learning:** Electronic learning, Seminars, scientific search on related websites,

Course specification of postgraduate

international, national and local journals, related books in faculty library.

- **Summer training course**
- **Assays and reviews**

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
Final Exam	**a1 to a6**	**b1 to b4**		
Practical Exam			**c1 to c5**	
Oral Exam	**a1 to a6**	**b1 to b4**	**c1 to c5**	**d1 to d4**

7.2. Assessment schedules

Method	Week(s)
Writing exam	**53,54,55**
Practical exam	**52**
Oral exam	53,54,55

7.3. Weight of assessments

Assessment	Weight of assessment	
Writing exam	**25**	**50%**
Practical exam	**15**	**25%**
Oral exam	**10**	**25%**
total	100%	

8- List of references

8.1. Notes and books

- Text book of Meat Hygiene, Professor/FathyAhmedKhalafalla, 2004.
- Practical Meat Hygiene, professor/ Fathy Ahmed Khalafalla and ass. Professor/FatmaHassanMohammed, 2004.

8.2. Essential books:

- Meat Hygiene (J.F. Gracey and D.S. Collins) , ninth edition, 1992

8.3. Recommended texts

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Journals:

Course specification of postgraduate

- FSIS (Food science and inspection surface)
- FDA
- FAO
- International journal of food science and technology

Websites:

- cms.nelc.edu.eg
- www.meatscience.org

www.inspection.gc.ca

www.directscience.com

Course Coordinators **Head of Department**

Dr. Abdel-Rahim H.A. Hassan **Prof. Fathy A. Khalafalla**

Course specification

	Topics	week	Intended learning outcomes of course (ILOs)			
			K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	Introduction	1	a1	-	-	-
2	Meat grading and cuts	2-3	a4	-	c5	-
3	Anatomical and morphological structures of carcasses of meat animals	4-5	-	b5	-	-
4	Chemical and biochemical constitution of muscle and fat	6-7	a3	b1, b3	-	-
5	Examination for additives	8	a1	-	c2	-
6.	Detection of residues	9	a5	-	-	-
7.	Detection of adulteration and falsification of meat and fat	10	a1	b1	c2	-
8.	Identification of animal species	11-12	a6	b4	c3	-
9.	Assessment of meat spoilage	13	-	b2	c4	-
10	Sensory evaluation of meat	14-15	a1	b1	c1	-
11	Determination of: 1. Moisture content 2. Fat 3. Protein 4. Ash 5. Salt	13-16	a1, a3	B1	c2	-
12	Assessment of fat spoilage	16-17	-	-	c4	-
13	legalizations and limits	18	a2	b3	c2	-
14	Physical properties of milk	19-20	a7	b6,b7	C7,c10	-
15	Chemical examination of milk	21-22	a8	b6,b8	C6	-

Course specification

1	Detection of preservatives in milk	23	**a10**	**b6,b9**	**C8**	-
1	Detection of milk adulteration	24	**a10**	**b6,b7**	**C9**	-
1	Detection of milk acidity	25	**a10**	**b7,b8,b9**	**C6,c10**	-
1	Detection of heat treatment of milk	26	**a13**	**b6,b7,b9**	**C8**	-
2	Detection of inhibitory substances	27	**a12**	**b6,b7**	**C6,c8**	-
2	Chemical examination of dairy products	28-29	**a10**	**b6,b7**	**C6,c9**	-
2	Sanitary tests of dairy products	30-31	**a10**	**b8**	**C7**	-
2	Fat and oils	32-33	**a11**	**b8**	**C7**	-
2	Detection of egg freshness	34	**a9,a11**	**b8**	**C7**	-
2	Detection of butter adulteration with margarine	35-36	**a11**		**C7,c9**	-
2	Student activities: - Abattoir and food plants visits - Dairy farms and plants visits - Writing assays - Internet search		**-**		**-**	**d1-d4**

Beni-Suef University
Faculty of Veterinary Medicine
Department of pharmacology

Course Specification

1- Basic information:		
Code No.: **D19-D**	Course title: **Endocrine Pharmacology**	Academic Year: 1st
Teaching Hours: Lecture: 1 Practical: 1 Total: 2		Specialization: Postgraduate Diploma of Animal By-Products**.**

2- Overall aims of the Course:

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

- Acquire knowledge about different endocrine hormones, their receptor sites, target organs, Pharmacological action, and mechanisms of action as well as deficiency or hyper secretion and therapeutic uses.

3- Intended Learning Outcomes:

a- Knowledge and Understanding

By successful completion of the course, the graduate should be able to:

a1. Recall the previous learned knowledge in physiology, biochemistry,…… etc.

a2. Outline mechanism of action, therapeutic uses, depot sites and regulation of secretion of different hormones (adrenal, thyroid, pituitary and sex hormones.

a3. Describe the pharmacokinetics and pharmacodynamics of endocrine hormones, also therapeutic uses.

b- Intellectual Skills

By successful completion of the course, the graduate should be able to:

b1. Planning how to design and analyse recent methods of hormone screening.

b2. Creates a good planning technique for performing and analysis of hormone bioassays.

b3. Select the appropriate methods for determination of the hormone actions, mechanism of action, kinetics, side effects and toxicity.

c- Professional and Practical Skills:

By successful completion of the course, the graduate should be able to:

c1. Design and plane a good therapeutic intervention.

c2. Testing a perfect methods for optimal detection of hormone residues.

d- General and Transferable Skills:

By successful completion of the course, the graduate should be able to:

d1. Work in group teams
d2. Properly use computer and internet
d3. Properly communicate with the others
d4. Manage scientific meetings and time.
d5. Enhance of his/her effective presentation skills

4- Course Contents:

Week	Topics	Total (hr)	Lectures (hr)	Practical (hr)
	Course description			
1-36	- endocrine Pharmacology	72	36	36
	Student activities: - Studying the pharmacological actions of different drugs on isolated tissue preparations and on laboratory animals. - Prescription writing. - Preparation of drug forms used for treatment of certain diseases - Writing assays.			
		72	36	36

5- Teaching and Learning Methods:	• **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids. • **Practical sections:** Studying the pharmacological actions of different drugs on isolated tissue preparations and on laboratory animals, Prescription writing and preparation of drug forms used for treatment of certain diseases. • **Self learning:** Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in faculty library. • **Summer training course** • **Assays and reviews** • **Discussion groups**
6- Teaching and Learning Methods for Handicapped:	**Not applicable**

7- Students assessment:

Methods of assessments:	Schedule	Weighing (degrees) Final	Intended learning outcomes
a) **Written exam** by the end of each semester	**Week:53, 54,55**	**50**	**a1 to a3 b1 to b3**
b) **Practical exam** at the end of each semester	**Week: 52**	**25**	**c1 to c2**
c) **Oral exam** by the end of each semester	**Week: 53, 54,55**	**25**	**a1 to a3 b1 to b3 c1 to c2 d1 to d5**

8- List of References:

a- Course notes:	• Textbook of pharmacology. • Textbook of practical pharmacology.
b- Essential books:	• Veterinary pharmacology and therapeutics (1982) • Antimicrobial therapy in veterinary medicine 4th Ed. (2006).
c- Recommended books	• The pharmacological basis of therapeutics 8th Ed (2006).
d- Periodicals, websites,…….etc	**Journals:** Journal of veterinary pharmacology and therapeutics **Websites:** - httpi//www.sciencedirect.com/science - ncbi.nlm.nih.gov/entrez/query.fcgi

The programme specification was discussed and assigned in the department council in:
/ /2012

Course Coordinator **Head of Department**

Name: Prof.: Abdel Nasser A. M. El Gendy **Prof. Abdel Nasser A. M. El Gendy**
Sig. :
Date :

Course Matrix for Achievement of Intended Learning Outcomes

Topics		Wk	Knowledge and Understanding	Intellectual Skills	Practical and Professional Skills	General & Transferable Skills
1	- **Endocrine Pharmacology**	1-36	a1 to a3	b1 to b3	c1 to c2	d1 to d5

Beni-Suef University
Faculty of Veterinary Medicine
Department of Animal Hygiene, Maagement and Zoonoses

Course Specification

1- Basic information:		
Code No.: D19- C	Course title: **Environmental Hygiene**	Academic Year: 1st
Teaching Hours: Lecture: 2 Practical: 1 Total: 3		Specialization: Diploma of animal byproducts

2- Overall aims of the Course:

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

1-Identify causes and measurable effect of environmental pollution on animal health
2-Acquire skills for analyze different samples from animals and their surrounding environment
3- Acquire skills solving a problem related to poor hygiene
4- Understanding the role of veterinarian in maintaining healthy environment

3- Intended Learning Outcomes:

a- Knowledge and Understanding

By successful completion of the course, the graduate should be able to:

a1. Recognize the importance of an animal's environment to its health and productivity.
a2. Outline livestock problems relating to the environment
a3. List the effect of climatic changes on emergency disease occurrence
a4. Recall the role of air ,water, soil, vectors in disease spreading
a5. Recognize methods of disinfection of farms with & without disease outbreaks
a.6. List the external parasites affecting poultry farms and methods of control
a7. Outline the consequences of poor hygiene in livestock farms

b- Intellectual Skills

By successful completion of the course, the graduate should be able to:

b1. Collect and analyze different environmental samples from poultry farms
b2. Evaluate effect of stressors on animal health and production

b3. Interpret the measures applied for prevention and control of contagious diseases
b4. Score the preventive and control measures for external parasites in farms.
b5. Differentiate between hygienic methods for disposal of Hazardous wastes

c- Professional and Practical Skills:

By successful completion of the course, the graduate should be able to:

c1. Measure and monitor the environmental problems in poultry farms
c2. Apply a new technology for hygienic disposal and treatment of animal wastes
c3. Carry out disinfection for poultry farms routinely and after disease outbreaks.
c.4. Plan a program for external parasites exists in livestock farms
c5. Solving problems related to environment in livestock farms.

d- General and Transferable Skills:

By successful completion of the course, the graduate should be able to:

d1. Demonstrate and solving environmental problem.
d2. Utilize group working in diseases prevention and control.
d3. Able to communicate with specialists.
d4. Participate in private business
.

4- Course Contents:

Week	Topics	Total (hr)	Lectures (hr)	Practical (hr)
	Course description			
1	**Introduction**	2	2	-
1-5	**Environmental Hygiene**	22	10	12
6-8	**Environmental stressors**	6	6	-
9-11	**Environment & Health**	12	6	6
12-14	**Climatic changes**	14	6	8
15-18	**Route of disease transmission**	8	8	-
19-22	**Control of External parasites**	22	8	14
23-27	**Hazardous wastes**	22	10	12
28-32	**Treatment of animal wastes**	22	8	14
33-35	**Environmental Sanitation**	12	6	6
36	**Student activities**	2	2	-

Total	144	72	72

5- Teaching and Learning Methods:	• **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids. • **Training visits**: to animals and poultry farms • **Practical sections:** Collection and analysis of environmental samples for detection of air impurities, chemical and microbiological examination of water and soil. dealing with animal wastes in animal and poultry farms. • **Self learning:** Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in faculty library. • **Summer training course** • **Assays and reviews** • **Discussion groups**
6- Teaching and Learning Methods for Handicapped:	**Not applicable**

7- Students assessment:

Methods of assessments:	Schedule	Weighing (degrees) Final	Intended learning outcomes
a) **Written exam** by the end of each semester	**Week:53, 54,55**	**25**	**a1 to a5 b1 to b5**
b) **Practical exam** at the end of each semester	**Week: 52**	**15**	**c1 to c5**
c) **Oral exam** by the end of each semester	**Week: 53, 54,55**	**10**	**a1 to a5 b1 to b5 c1 to c5 d1 to d5**

8- List of References:

a- Course notes:	- Text book of Animal, Poultry and Environmental

	Hygiene(Parts I & II) Professor/ Mohammed Abdel Rahman Elbably - Practical notes on Animal, Poultry and Environmental Hygiene (Parts I & II) Professor/ Mohammed Abdel Rahman Elbably -
b- Essential books:	1. A Manual Of Veterinary Hygiene Sir Frederick Smith (Author) Published By: General Books 2. Water pollution (causes, effects and control) P.K Goel 3. Farm animal Health and Disease control John K. Philadelphia 1982 4. Animal Health and Housing. "David Sainsbury", London, Bailliere, Tindal and Cassel 1997. 5. Animal Health and Housing. "David Sainsbury" Blackwell Science 2000. 6. Keeping livestock healthy, N Bruce Haynes (2001). 7. Disinfection, Sterilization and preservation Seymour S Block, Block Lea Febiger (1991)
c- Recommended books	1. Veterinary Hygiene by Robert Georg Linton (Paperback - 8 Jan 2010) 2. Veterinary Hygiene by R.G Linton (Hardcover - 1940) 3. A Manual Of Veterinary Hygiene Sir Frederick Smith (Author) Published By: General Books 4. Veterinary Epidemiology: An Introduction [Paperback] Dirk Pfeiffer Dirk Pfeiffer (Author) › Visit Amazon's Dirk Pfeiffer Page 5. Fundamental pollution: By Krishman Kannan 1997, S. Chard and Company LTD. 6. Veterinary Hygiene by Robert Georg Linton (Paperback - 8 Jan 2010) Veterinary Hygiene by R.G Linton (Hardcover - 1940)
d- Periodicals, websites,…….etc	**Journals** Journal of Animal Science Poultry Science J. Environ. Quality Environmental pollution Journal Veterinary Research J. Environmental managing Journal Toxicology and Environmental Health **Websites** www.educations.com…… 2- www.thepigsite.com/ **3-** www.disinfectants1.com www.rvc.ac.uk **5- www.educations.com** 6- www.thepigsite.com/ - www.disinfectants1.com 8- www.rvc.ac.uk

The programme specification was discussed and assigned in the department council in:
/ /2012

Course Coordinator **Head of Department**

- **Name: Mohammed Abdel Rahman El Bably** **Prof.**

Sig. :
Date :

National Authority For Quality Assurance and Accreditation of Education

Course Matrix for Achievement of Intended Learning Outcomes

Topics	Wk	Knowledge and Understanding								Intellectual Skills							Practical and Professional Skills								General &Transferabl Skills			
		1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8	1	2	3	4
Envir.Hygiene																												
Introduction	1	X	X								X						X								X			
Environmental Hygiene	1-5	X	X								X						X									X		
Environmental stressors	6-8	X									X						X								X			
Environment & Health	9-11	X	X								X						X								X			
Climatic changes	12-14			X							X														X			
Route of disease transmission	15-18					X						X									X					X		
Control of External parasites	19-22						X						X							X						X		
Hazardous wastes	23-27							X						x				X								X		
Treatment of animal wastes	28-32					X								x				X								X		
Environmental Sanitation	33-35		X							X				x											X			
Student activities	36	X								X							X								X	X		

Beni-Suef University
Faculty of Veterinary Medicine
Department of Animal Hygiene , Maagement and Zoonoses

Course Specification

1- Basic information:		
Code No.: D11- A	Course title: **Animal Hygiene**	Academic Year: 1st

Teaching Hours:			Specialization:
Lecture: 1	Practical: 1	Total: 2	Postgraduate Diploma of animal management

2- Overall aims of the Course:

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

1-Identify hygienic and health problems in veterinary field Principles of prevention and control of contagious diseases
2-Acquire skills for solving a problem related to poor hygiene & control spread of contagions animal diseases
3- Understanding the role of veterinarian in maintaining healthy environment and food safety

3- Intended Learning Outcomes:

a- Knowledge and Understanding

By successful completion of the course, the graduate should be able to:

a1. Define the terms of hygiene, sanitation and veterinary public health.
a2-Realize methods used for prevention, control and eradication of disease.
a3-Describe the role of the veterinarian in marinating animal and environmental health
a4-Explain the environmental role in transmission of diseases to animals.
a5-Discuss the relation between hygiene and occurrence of the disease.
a6- solving the problems in the different animal farms that can lead to spreading of diseases.

b- Intellectual Skills

By successful completion of the course, the graduate should be able to:

b1. collect and analyze data about disease occurrence, distribution and risk factors.
b2.Judge the efficiency of farm hygiene in animal production farms.
b3. Investigate the hygienic problems in livestock field
b4.Judge on the most important diseases affecting different animals and man.
b5.Able to interpret between agent – host – environment and the interaction of disease determinants herd immunity and causation of diseases.
b6.Suggest methods of assessing the economic benefits of diseases control.
b7. Apply a strategy for disease prevention, control and eradicate infectious diseases.

c- Professional and Practical Skills:

By successful completion of the course, the graduate should be able to:

c1. Able to describe the disease events precisely
c2. Examine the different methods for assessing the environmental role on occurrence of diseases.
C3. Estimate disease occurrence (pattern and frequency)
C4. Collect samples from the affected populations for further investigations to ascertain the disease.
C5. Demonstrate the different important hygienic problems associated with intensive animal production in Egypt.
C6. Apply the basis of disease control in animal production farms.
C7. Examine the best methods for solving health problems of animal production farms..

d- General and Transferable Skills:

By successful completion of the course, the graduate should be able to:

d1. Demonstrate and solving environmental problem.
d2. Utilize group working in diseases prevention and control.
d3. Able to communicate with specialists.
d4. Participate in private business
d4. Use computer and internet skills in communication and presentation.
d5 Use statistical methods for analysis of the obtained data..

4- Course Contents:

Week	Topics	Total (hr)	Lectures (hr)	Practical (hr)
1	Introduction	2	2	-
1-5	Environmental Hygiene	22	10	12
6-8	Environmental stressors	8	6	2
9-11	Disposal of animal wastes	14	6	8
12- 13	Transportation of animals	3	3	-
14-15	Disinfection and disinfectants	10	3	7
15-17	Control of insects and rodents	13	6	7
	Total	72	36	36

5- Teaching and Learning Methods:	• **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids. • **Training visits**: to animals and poultry farms • **Practical sections:** Collection and analysis of

	environmental samples for detection of air impurities, chemical and microbiological examination of water and soil. dealing with animal wastes in animal and poultry farms. • **Self learning:** Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in faculty library. • **Summer training course** • **Assays and reviews** • **Discussion groups**
6- Teaching and Learning Methods for Handicapped:	**Not applicable**

7- Students assessment:

Intended learning outcomes	Weighing (degrees) Final	Schedule	Methods of assessments:
a1 to a5 **b1 to b5**	**25**	**Week:53, 54,55**	**Written exam** by the end of each semester
c1 to c5	**15**	**Week: 52**	**Practical exam** at the end of each semester
a1 to a5 **b1 to b5** **c1 to c5** **d1 to d5**	**10**	**Week: 53, 54,55**	**Oral exam** by the end of each semester

8- List of References:

a- Course notes:	- Text book of Animal, Poultry and Environmental Hygiene(Parts I & II) Professor/ Mohammed Abdel Rahman Elbably - Practical notes on Animal, Poultry and Environmental Hygiene (Parts I & II) Professor/ Mohammed Abdel Rahman Elbably -
b- Essential books:	- Veterinary Epidemiology. Principals and Methods.

	Martin, S. W.; Meek, A. H. and Willeberg, P. (1987): Iowa State University Press, Ames. - 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. Animal Health. **Geer, B. K. (1980):** A Layman`s guide to disease control. 2nd ed. Interstate printers and Publishers, USA
c- Recommended books	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. 3. Poultry Health and Management. **Sainsbury, D. (1993):** 3rd Ed. Blackwell, Scientific Publication, U.k. Guidelines for Drinking Water Quality. **W.H.O. (1985):** Geneva.
d- Periodicals, websites,…….etc	**Journals** Journal of Animal Science Poultry Science J. Environ. Quality Environmental pollution Journal Veterinary Research J. Environmental managing Journal Toxicology and Environmental Health **Websites** www.educations.com…… 2- www.thepigsite.com/ **3-** www.disinfectants1.com www.rvc.ac.uk **5-** **www.educations.com** 6- www.thepigsite.com/ - www.disinfectants1.com 8- www.rvc.ac.uk

The programme specification was discussed and assigned in the department council in:
/ /2012

Course Coordinator **Head of Department**

- **Name: Mohammed Abdel Rahman El Bably** **Prof.**

Sig. :
Date :

National Authority For Quality Assurance and Accreditation of Education

Course Matrix for Achievement of Intended Learning Outcomes

Topics		Knowledge and Understanding	Intellectual Skills	Practical and Professional Skills	General & Transferable Skills
1.	Introduction	**a1**			
2.	Environmental Hygiene	**a1**	**B2**	**C1**	d1
3.	Environmental stressors	**a4**	**B3**	**c5**	**D3**
4.	Disposal of animal wastes	**a6**	**b6**	**c7**	**d1**
5.	Transportation of animals	**a5**	**b7**	**c7**	**d2**
6.	Disinfection and disinfectants	**A6**	**B2**	**C7**	**D1**
7.	Control of insects and rodents	**A6**	**b2**	**c7**	**d2**
8.	Student activities	**a1,2**	**b1**	**C 1**	**d1,2**
9.					
10.					
11.					
12.					

Beni-Suef University
Faculty of Veterinary Medicine

Postgraduate course specification

1-Basic information

Course Code:	
Course title :	Meat and Meat Products Hygiene
Program title:	Postgraduate Diploma of Food Control
Contact hours/ week	Lecture:2 practical:2 total:4
Approval Date	12-9-2017

2-Professional information

Overall aims of course:

This course aims to:

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

Appreciate of the importance of the interrelationships of microorganisms with foods and the role of microorganisms in food safety, food spoilage and food production

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

a1. Recognize the steps of carcass preparation inside the slaughterhouse.
a2: Understand factors affecting the growth of microorganisms in food.
a3. Identify food borne diseases and food poisoning microorganisms.
a4. Explain the sources of meat contamination inside the abattoirs.
a5. Recognize the forms of meat and fat deterioration.
a6. Recognize the factors affecting meat quality.
a7: Enumerate the bacterial, viral and parasitic diseases those could be diagnosed inside the slaughterhouses.

b- Intellectual skills:

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

b1. Expect the causative agent of food poisoning outbreaks.
b2. Interpret the results of microbiological examination of meat and meat products.
b3. Take decisions regarding the ante-mortem and postmortem examination of carcasses
b4. Evaluate the keeping quality of meat and meat products.
b5. Estimate the main causes of meat spoilage.
b6: Interpret the results of bacteriological and parasitological examination of carcasses.
b7: Give judgment regarding the bacterial, viral and parasitic diseases detected by PM examination.

C- Professional and practical skills:

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

c1. Grossly examine spoiled meat samples.
c2. Apply the microbiological and chemical methods of meat analysis.

c3. Interpret the results of laboratory examinations of suspected meat and its products.
c4. Diagnose a case of food poisoning and expect the causative agent.
c5. Do the antemortem and postmortem examination of carcasses
c6: Use the sanitizers efficiently for abattoir cleaning and disinfection.

d- General and transferable skills:
By the end of studying the course, the student should be able to:
d1. Work in group teams
d2. Properly use computer and internet
d3. Properly communicate with the others
d4. Manage scientific meetings and time.
d5. Enhance of his/her effective presentation skills

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
(Lec. 2 h./week, Pract 2 h./week)	Abattoir	36	18	18
	Bacterial diseases	14	7	7
	Viral Disease	12	6	6
	Parasitic diseases	10	5	5
	Identification of Animal species	10	5	5
	Meat Microbiology	12	6	6
	Bacterial food poisoning	16	8	8
	Bacteriological examination of carcasses	10	5	5
	Evaluation of carcass bleeding	12	12	-
	Determination of Meat freshness	12	12	-
	Student activities: - Abattoir and food plants visits - Writing assays - Internet search	-	-	-
	Total	144	72	72

5-Teaching and learning methods

- **Lectures:** depending on the sharing efforts of the students and supported with macromedia and multimedia aids.
- **Training visits**: to abattoirs of animals and poultry as well as meat processing plants.

- **Practical sections:** Laboratory diagnosis of suspected meat, fish, poultry and meat products by chemical and microbiological methods, identification of meat species by laboratory methods.
- **Self learning:** Electronic learning, Seminars, scientific search on related websites, international, national and local journals, related books in faculty library.
- **Summer training course**
- **Assays and reviews**
- **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
Final Exam	**a1 to a7**	**b1 to b7**		
Practical Exam			**c1 to c6**	
Oral Exam	**a1 to a7**	**b1 to b7**	**c1 to c6**	**d1 to d5**

7.2. Assessment schedules

Method	Week(s)
Writing exam	**53,54,55**
Practical exam	**52**
Oral exam	53,54,55

7.3. Weight of assessments

Assessment	Weight of assessment	
Writing exam	**50**	**50%**
Practical exam	**15**	**25%**
Oral exam	**10**	**25%**
Total	100%	

8- List of references

8.1. Notes and books

- Text book of Meat Hygiene, Professor/ Fathy Ahmed Khalafalla, 2004.
- Practical Meat Hygiene, Professor/ Fathy Ahmed Khalafalla and ass. Professor/Fatma Hassan Mohammed, 2004.

8.2. Essential books:

- Meat Hygiene (J.F. Gracey and D.S. Collins) , ninth edition, 1992.

8.3. Recommended texts

- The microbiology of safe food (Stephen J. Forsythe), rst published 2000

8.4. Journals, Websites ……..etc

Journals:

- Journal of Food Microbiology

Websites:

- cms.nelc.edu.eg
- www.meatscience.org

www.inspection.gc.ca

Course Coordinators **Head of Department**

Dr. Abdel-Rahim H.A. Hassan **Prof. Fathy A. Khalafalla**

	Topics	Week	Intended learning outcomes of course (ILOs)			
			K and U (a)	I.S (b)	P.P.S. (c)	G.T.S (d)
1	Abattoir	1-6	1,2,3	1,2,3	1,2,3,4	1,2,3,4,5
2	Bacterial diseases	7-9	1,2,3	1,3	1,2,3,4	
3	Viral Disease	10-12	1,2	1,2,3	1,2,3	
4	Parasitic diseases	13-16	1,2	1,2,3	1,2,3	
5	Identification of Animal species	17-20	1,2,3	1,2,3	1,2,3,4	
6	Meat Microbiology	21-26	1,2,3	1,3	1,2,3,4	
7	Bacterial food poisoning	27-30	1,2	1,2,3	1,2,3	
8	Bacteriological examination of carcasses	31-36	1,2	1,2,3	1,2,3	
9	Student activities: - Abattoir and food plants visits - Writing assays - Internet search	During the year				1,2,3,4,5

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

1-Basic information

Course Code:	**M-32**
Course title :	**Radioactive isotopes and its biological uses.**
Program title:	**Master Degree of Veterinary Medical Sciences (Animal physiology**
Contact hours/ week	**2hr(practical)-2hrs(lecture)4 hrs(total)**
Approval Date	

2-Professional information

Overall aims of course:

This course aims to:

a- ensure that students reserve a comprehensive theoretical base on radioactive isotopes and their biological uses**.**

b- Provide students with knowledge, skills and confidence to deal with radioactive isotopes in medical laboratories.

3- Intended learning outcomes of course (ILOs)

a-Knowledge and understanding:

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

a.l- understand the basic concepts and terminology of radiation**.**

a.2- clarify the biological hazards of radiation on animal tissues.

a.3- explain the mode of action of radiation on animal tissues.

a.4- outline the medical uses of radiation.

a.5- recognize the regulations for the use of radiation.

b-Intellectual skills

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

b.l- compare between types of radiation and their effects.

b.2- explore the factors affecting deleterious effects of radiation on the tissues.

b.3- rank cells according to its sensitivity to radiation.

C- Professional and practical skills

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

c.l- analyze samples by RIA.

c.2- calculate the half life and effective half life of a radionuclide.

c.3- judge a sample for radio contamination.

d- General and transferable skills

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

d.l- summarize research findings in oral form in seminars and workshops.

d.2- communicate effectively with supervisors.

d.3- demonstrate information retrieval and library skills.

Beni-Suef University
Faculty of Veterinary Medicine

Course specification of postgraduate

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
(Lec. h./week, Pract h./week) Lec,2hrs/wk,prac2hrs/wk	Basic concepts and terminology of radiation	12hrs	6hrs	1hrs
	Biological hazards of radiation on animal tissues	12hrs	6hrs	1hrs
	Mode of action of radiation on animal tissues	12hrs	6hrs	1hrs
	Medical uses of radiation	12hrs	6hrs	1hrs
	Regulations for the use of radiation	12hrs	6hrs	1hrs
	Characteristics of antigen-antibody reactions	12hrs	6hrs	1hrs
	Measurements of precipitations	12hrs	6hrs	1hrs
	Principles of Agglutination & Agglut. inhibition	12hrs	6hrs	1hrs
	Principles of radioimmunoassay (RIA)	12hrs	6hrs	1hrs
	Principles of enzyme immunoassay (ELISA)	12hrs	6hrs	1hrs
	Principles of fluorescent immunoassy	12hrs	6hrs	1hrs
	Adaptations in different environments	12hrs	6hrs	6hrs
	Total	144hrs	72hrs	3hrs

5-Teaching and learning methods

5.1- Lectures (brain storm, discussion) using board, data shows
5.2- Self learning by preparing essays and presentations (computer researches and library)
5.3- Practical (models, samples of stainrd tissues and data show).

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
Final Exam	a1- a2- a3- a4-a5	b1- b2- b3	c1- c2- c3	d1-d2-d3
Practical Exam	a1- a2- a3-a4-a5	b1- b2- b3	c1- c2- c3	d1-d2-d3
Oral Exam	a1- a2- a3- a4-a5	b1- b2- b3	c1- c2- c3	d1-d2-d3

Course specification of postgraduate

7.2. Assessment schedules

Method	Week(s)
Writing exam	**last weak**
Practical exam	**last weak**
Oral exam	**last weak**

7.3. Weight of assessments

Assessment	Weight of assessment
Writing exam	**50%**
Practical exam	**25%**
Oral exam	**25%**
total	100%

8- List of references

8.1. Notes and books Student handbook of physiology prepared by the department staffs

8.2. Essential books: * Handbook of Radiobiology. Kedar N. Prasad, 1995. CRC press, Boca Raton, New York.

* Radioimmunoassay. Rosalyn S. Yalow, 1983. Hutchinson Ross Publishing Co., Pennsylvania.
* Animal physiology. ITTA Sambasiviah, A.P. Kamalakara RAO and S. Augustine Chellappa 1987.
* Physiology of Domestic Animals. William O. Reece 1991.

8.3. Recommended texts* Experiments in Physiology 6th Edition. Gerard P. Tharp 1993.

* Textbook of Medical Physiology. Guyton & Hall 9th Edition. 1996. W.B. Saunders Co. (Harcourt Brace I.E.) Philadelphia, USA.
* Physiology 3rd edition. John Buuock, Joseph Boyle III and Michael B. Wang, 1995. National Medical Series for Independent Studies. Middle East Edition. Mass Publishing CO. 9Al Tahrir St., Dokki, Giza, Egypt.

8.4. Journals, Websites ……..etc

Journals: * Egyptian J. of Basic and Applied Physiology. Cairo, Egypt.

Websites:

WWW.Science direct
WWW. Pubmed.com
WWW.Scholar google.com
WWW.welly interscience

Course Coordinators **Head of Department**

Course specification of postgraduate

Course specification

	Topics	week	Intended learning outcomes of course (ILOs)			
	Histology of lab animal		K and U (a)	I.S (b)	P. P.S. (c)	G.T.S (d)
1	General structure of digestive system	1st w- 9th w	1,2,3	1,2,3	1,2,3,4	1,2,3,4,5
2	- General structure of respiratory system	10th w- 18th w	1,2,3	1,3	1,2,3,4	1,2,3,4,5
3	- General structure of urogenital system	19th w- 27th w	1,2	1,2,3	1,2,3	1,2,3,4,5
4	- General structure of lymphatic system	28th w- 36th w	1,2	1,2,3	1,2,3	1,2,3,4,5

Beni-Suef University
Faculty of Veterinary Medicine
Food Hygiene Department

Postgraduate programme specification for Diploma of Animal byproducts 2017-2018

Programme Specification
University: Beni-Suef
Faculty: Veterinary Medicine
Department: Food Hygiene and Control

A- Administrative Information

1. Programme title: Diploma of Animal byproducts
2. Award/degree: Diploma 3-Code:
4. Department responsible: Food Hygiene and control
5. Coordinator: **Dr. Abdel-Rahim H.A. Hassan**
6. External evaluator(s):
7. Approval date: 12-9-2017

B- Professional Information

1. Programme aims: The diploma programme supports the postgraduate student competences to:

a) Apply acquired scientific knowledge in the field of animal byproducts
b) Apply all professional skills and use the appropriate technological means in the field of animal byproducts treatment.
c) Communicate effectively and lead teamwork efficiently.
d) Take decisions using the available information.
e) Effectively use the available facilities and resources in animal byproducts treatment.
f) Be aware of his/her role in community development and environmental problems may occur form not treated animal byproducts.
g) Commit the moral and legal rules of animal by products treatment..

2. Intended learning outcomes (ILOs) for programme

a- Knowledge and understanding:

By the end of the Diploma program, the postgraduate should be able to:

a.1- Outline specialized theories and knowledge in the field of animal byproducts treatment and related sciences

a.2- Identify the legal and moral rules in animal byproducts treatment.

a.3- Specify the different quality management systems in animal byproducts treatment.

b- Intellectual skills

By the end of the Diploma program, the postgraduate must be able to:

b.1-Detect and analyze problems of animal byproducts treatment and arrange them according to their priorities

b.2- Suggest the appropriate solutions for problems related to animal byproducts.

b.3- Asses different risk factors for each practice related to byproducts treatment.

b.4-Take decisions using the available information.

c- Professional and practical skills

By the end of the Diploma program, the postgraduate must be able to:

c1-Apply different professional skills and techniques in the field of animal byproducts treatment.

c2-.Write specialized reports related to animal byproducts manipulation.

d- General and transferable skills

By the end of the Diploma program, the postgraduate must be able to:

d1- Properly use the information technologies for development of his/her professional abilities

d2-Assess him/herself and learn how to detect his/her learning requirements

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

3- Academic standards

* 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.

* Generic standards (March 2009), Diploma degree chapter issued by national authority for quality assurance and accreditation of education (NAQAAE) and Veterinary medicine postgraduate 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 .

4 – Curriculum structure and content.

4.1) Programme duration: 1 year

4.2) Programme structure:

Course	Lecture	Practical	Total
Animal by products	2	2	4
Meat and Meat	3	2	5

Products Hygiene			
Environmental Hygiene	2	1	3
Pharmaceutical hormones	1	1	2
Radioactive isotopes	1	2	3
Total	9	8	17

5- Programme – course ILOS Matrix

Courses	K. &U. skills				I. skills					P. & P. skills		G. &T. skills						
	a1	a2	a3	a4	b1	b2	b3	b4	b5	c1	c2	d1	d2	d3	d4	d5	d6	d7
Animal by products	x	x	x	x	X	x	x	x	x	x	x	X	x	x	x	x	x	x
Meat and Meat Products Hygiene	x	x	x	x	X	x	x	x	x	x	x	X	x	x	x	x	x	x
Environmental Hygiene	x	x	x	x	X	x	x	x	x	x	x	X	x	x	x	x	x	x
Pharmaceutical hormones	x	x	x	x	X	x	x	x	x	x	x	X	x	x	x	x	x	x
Radioactive isotopes	x	x	x	x	X	x	x	x	x	x	x	X	x	x	x	x	x	x

6- **Programme admission requirement:**

1- Obtaining a bachelor degree in veterinary medicine sciences from one of the Egyptian universities or equivalent degree from another recognized scientific institute with any grade

2- The bachelor degree must be obtained at least one year prior to registration

3- The applicant must have regular attendance in his courses according to the schedule of the faculty.

4- Registration will be during September of each year.

7 - Regulations for progression and programme completion.

1- Registration period is one year for diploma and the applicant not exceed a period of registration for two year.

2- The exams of the diploma are 2 times / year in December & April.

3- The faculty council has the right to deprive the applicant from the exam if his attendance during the courses is less than 75%.

4- in case of failure, the exams will be hold 2 times / year and reexamination in all courses each time.

8-The system of exam for postgraduate diploma is as follow:
Time of written exams, 3 hours for each curriculum have 3 hours or more for theoretical / practical hours/ week. If the curriculum less than 3 hours / week, the time of exam is 2 hours only.

The final mark of each curriculum which have 3 hours (theoretical & practical) per week is 100 , while that less than 3 hours is 50 degree ,50 % for written exam and 50 % for practical and oral exam.

9-Grades of graduation are as follow:

Excellent	**> 90**
Very good	**> 80 -≤90**
Good	**>70- ≤ 80**
Pass	**>60 - ≤ 70**
Failed	**45 to less than 60 weak**
	Less than 45 very weak

The programme specification should have attached to it all course specifications listed in the matrix.

Programme coordinator **Head of the Department**

Dr. Abdel-Rahim H.A. Hassan **Prof. Fathy Ahmed Khalafalla**

Signature: **Date:**