



Meat Hygiene and Control

DIPLOMA COURSE SPECIFICATION

A. BASIC INFORMATION

University:	University of Sadat City
Faculty:	Veterinary Medicine
Program on which the course is given:	Diploma of Food Hygiene & Control
Department offering the Course:	Food Hygiene and Control
Course code:	903
Course title:	Meat Hygiene and Control
Lecture (hr/week):	2
Practical (hr/week):	2
Course coordinator:	Dr. Mohamed Hamada Dr. Riyad Rabea Mostafa

B. PROFESSIONAL INFORMATION

1) Overall aims of course

Upon successful completion of the course, the student will be able to:

-) Understand the education in the field of meat hygiene and tasks of meat hygienist.
-) Gain the skills required for practice of meat inspection.
-) Understand the importance of the meat hygiene in improving human health
-) Design and conduct research to improve the efficacy of advanced food control techniques.
-) Recognize the most recent techniques and diagnostic tools in the field of food control.
-) To achieve capability in modern laboratory technology to develop practical research project.

2) Intended learning outcomes of course (ILOs)

a) Knowledge and Understanding

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

- a.1. Describe the tasks of meat hygienist, different compartment of abattoir.
- a.2. List ante-mortem and postmortem inspection of animals, bacterial, viral and parasitic diseases that transmitted through meat.
- a.3. Realize different compartment of abattoir, pre-slaughter care, types of slaughter and the conditions of slaughter malpractice.
- a.4. Recognize the most recent techniques in the field of hygiene control.
- a.5. Understand the advanced quality principles of meat hygiene.
- a.6. Outline modern laboratory technology to develop practical research project.

b) Intellectual Skills

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

- b.1. Link between conditions of slaughtering malpractice and poor pre-slaughter care.
- b.2. Differentiate between physiological & pathological conditions during P.M. inspection.
- b.3. Evaluate the risk of ill bled slaughtered animals problems and its possible public health consequences.
- b.4. Choose the suitable judgment of slaughtered food animals after P.M. inspection.
- b.5. Weigh up the food chain hazards in relation to the human consuming.
- b.6. Interpret the results of different laboratory analysis and P.M inspection.

c) Professional and Practical Skills

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

- c.1.** Practice abattoir tests to judge animal bleeding, detection of meat borne parasites, identification of different slaughtered food animals.
- c.2.** Apply Lab. Test to judge efficiency of animal bleeding and also for detection of abnormal odor and color, for measurement of pH of muscle, for detection of inhibitory substances, for detection of meat borne parasites, for identification of animal species.
- c.3.** Practice tests that differentiate between fresh and spoiled meat.
- c.4.** Apply methods for bacteriological examination, control of hygienic measures and detection of residues in meat.
- c.5.** Operate ante-mortem and postmortem inspection of animals.

d) General and Transferable Skill

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

- d.1.** Communicate effectively.
- d.2.** Utilize different sources of knowledge and information.
- d.3.** Demonstrate an ability to learn independently for a career of lifelong learning.
- d.4.** Use information technology to serve the professional practice.
- d.5.** Manage time efficiently.
- d.6.** Set tools and indicators for assessment of the performance of others.

३) Topics and contents

Topic	No. of hours		
	Lect.	Pract.	Total
Introduction, tasks of meat hygienist, slaughter animal & carcass yield, abattoirs	4	-	4
slaughter house sanitation	8	-	8
Pre-slaughter care, conditions occurring from poor pre-slaughter care	8	-	8
Admission of animals to abattoir , Ante – mortem inspection	8	-	8
Slaughtering, Emergency and casualty slaughter, Bleeding & Dressing	4	-	4
Conditions occurring from slaughtering malpractice	8	-	8
Post - mortem examination , Post – mortem changes and rigor mortis	4	-	4
Lymphatic system, Butcher's joints in relation to the carcass lymph nodes	8	-	8
Abnormal conditions of food animals,	8	-	8
Bacterial and Fungal diseases	6	-	6
viral and other specific diseases	6	-	6
parasitic infestation	8		8
Affections of specific parts	8		8
Bleeding		8	8
Measurement of pH of muscles		8	8
Abnormal odors & color	-	8	8

Abattoir rounds	-	12	12
Bacteriological examination	-	8	8
Parasitic diseases	-	8	8
Control of hygienic measures	-	8	8
Detection of meat freshness	-	8	8
Detection of residues in meat	-	8	8
Identification of animal species	-	12	12
Total	88	88	176

ξ) Teaching and Learning Methods

- 4.1. Lectures.
- 4.2. Practical.
- 4.3. Self-learning activities

°) Student Assessment

a. Methods:

1- Written examination	For assessment of knowledge, back calling and Intellectual skills
2- Practical examination	For assessment of practical and professional skill.
3- Oral examination	For assessment of knowledge and Intellectual skills
4- Student activities	For assessment of knowledge and general and transferable skills

b. Matrix Alignment of the measured ILOs/ Assessments Methods:

Method	K.U (a)	I.S (b)	P.P.S (c)	G.S (d)
Written exam	1,2,3,4,5,6	1,2,3,4,5,6		
Practical exam			1, 2, 3, 4, 5	
Oral exam	1, 2, 3	1, 4		
Students activities	2,3			1-6

c. Weight of Assessments:

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

٦) List of references

6.1. Essential Books (Text Books)

-) Meat hygiene, 1992 Gracey, J. and Collins, D.
-) A color Atlas of Meat Inspection. .Infante Gil.1990.
-) Methods in Meat Science.BnKowale.2008.
-) Modern Food Microbiology. James M. Jay.2006.
-) Assessing Quality &safety of Animal feeds.FAO.2004.
-) Food Microbiological Analysis. Mary Lou Tortorello.1997.
-) Structure and Development of Meat Animals. H. J. Swatland. 1984.
-) Food poisoning & food Hygiene. Betty C.Hobbs.1982.

6.2. Periodicals, Web sites, etc

-) Journal of food protection
-) Journal of food technology
-) Journal of meat science
-) Wwww. Pub med.com.
-) google.Com

٧) Facilities required for teaching and learning

-) Video Films.
-) Data-show.
-) Experimental animals.
-) Teaching abattoir and food processing plant.
-) Overhead projector.
-) Laboratories.
-) Computer.
-) Field visits.
-) Chemicals required for microbiological and analysis.

	Course coordinators	Head of department
Name	Dr. Mohamed Hamada Dr. Riyad Rabea Mostafa	Prof. Dr. Abd El Rahman Elbagory
Signature		

Matrix alignment of course topics and ILOs

Topic	No. of hours /week		Total hours	Hours for Lect.	Hours for Pract.	ILOs			
	Lect.	Pract.				K.U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Introduction, tasks of meat hygienist, slaughter animal & carcass yield, abattoirs	2	-	4	4	-	1,3	-	-	1-6
slaughter house sanitation	2	-	8	8	-	3,4	-	-	1-6
Pre-slaughter care, conditions occurring from poor pre-slaughter care	2	-	8	8	-	3	1,3	-	1-6
Admission of animals to abattoir , Ante – mortem inspection	2	-	8	8	-	2,5	-	-	1-6
Slaughtering, Emergency and casualty slaughter, Bleeding & Dressing	2	-	4	4	-	3	1,3	-	1-6
Conditions occurring from slaughtering malpractice	2	-	8	8	-	3	1,2,3	-	1-6
Post - mortem examination , Post – mortem changes and rigor mortis	2	-	4	4	-	2,5,6	2,3,4	-	1-6
Lymphatic system, Butcher's joints in relation to the carcass lymph nodes	2	-	8	8	-	2	2,4	-	1-6
Abnormal conditions of food animals,	2	-	8	8	-	2,4	2,3,4	-	1-6
Bacterial and Fungal diseases	2	-	6	6	-	2,4	2,4,5,6	-	1-6
viral and other specific diseases	2	-	6	6	-	2,4	2,4,5,6	-	1-6
parasitic infestation	2		8	8	-	2,4	2,4	-	1-6
Affections of specific parts	2		8	8	-	2,4	2,3,4,5,6	-	1-6
Bleeding	-	2	8	-	8	-	-	1,2,5	1-6
Measurement of pH of muscles	-	2	8	-	8	-	-	2,3	1-6
Abnormal odors & color Q value	-	2	8	-	8	-	-	2	1-6
Abattoir rounds	-	2	12	-	12	-	-	1,5	1-6
Bacteriological examination	-	2	8	-	8	-	-	4	1-6
Parasitic diseases	-	2	8	-	8	-	-	1,2	1-6

Topic	No. of hours /week		Total hours	Hours for Lect.	Hours for Pract.	ILOs			
	Lect.	Pract.				K.U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Control of hygienic measures	-	2	8	-	8	-	-	4	1-6
Detection of meat freshness	-	2	8	-	8	-	-	3	1-6
Detection of residues in meat	-	2	8	-	8	-	-	4	1-6
Identification of animal species	-	2	12	-	12	-	-	1,2	1-6
Total			176	88	88	-	-	-	-