Specification for Meat and their product hygiene and control course 2019/2020

A-Affiliation

1.	**Relevant program**	Bachelor of Veterinary Medical Science (BVMSc)
2.	**Department offering the course**	Food hygiene and control

Date of specification approval: ministerial decree No. 1727 on 26/4/2017
(Approved in this template by the department council on 1/10/2019**)**

B-Basic information

1.	**Course title**	Meat and their product hygiene and control
2.	**Course code**	509 (B) I
3.	**Level**	5th year
4.	**Semester**	Second semester
5.	**Total hours/week**	4
6.	**Lecture hours/week**	2
7.	**Practical hours/week**	2

C-Professional Information

1- Course learning objectives

The aim of the course is to provide the students with a basic education in the field of meat hygiene and to enable them to gain the skills required for the practice of meat, poultry and fish inspection

2- Intended learning outcomes of the course (ILOs):

a- Knowledge and understanding

After successful completion of the course the students should be able to:

a.1-Describe the effect of processing and storage on meat microbial changes.

a.2- Identify the basics of meat technology and preservation, types of meat products and raw meat materials.

a.3. Describe the different stages of sausage production

a.4- Describe the different procedures of ante-mortem and post-mortem poultry and rabbit inspection.

a.5- Explain processing faults in poultry and rabbit meat

a.6- List the hazards associated with marine toxins.

a.7-Identify appropriate methods for fish identification.

a.8- Identify Food safety systems as HACCP system.

b- Intellectual skills

After successful completion of the course the students should be able to:

b.1- Distinguish Microbiological changes of meat.

b.2- Evaluate the processing fault in poultry and rabbit meat..

b.3- Compare between different methods of preservation..

b.4- Link between efficiency of raw materials, meat ingredients, binding meat particles at food processing plant and the quality of the final meat products.

b.5- Evaluate the Sanitation and cleaning systems and programs.

b.6- Interpret the collected data and synthesis creative solution for problems associated with marine toxins.

b.7- Assess the effective protocols for attain good nutritional value of fish.

c- Professional and practical skills

After successful completion of the course the students should be able to:

c.1- select samples for microbiological examination:

c.3- Apply necessary physical and laboratory tests for examination of meat products

c.4- Perform preservation methods of meat products:

c.5- write a report about poultry and rabbit meat processing and by product

c.6- Implement several strategies for fish quality control

c.7- improve Hygienic designs for food factory

c.8- apply control of hygienic measures**:**

d- General and transferable skills

After successful completion of the course the students should have the following skills

d1- Work under pressure and / or contradictory condition in contain codes

d2- Communicate verbally and non-verball with lecturers and class-mates

d3- Function in a multidisciplinary team during conducting a research paper.

d4- Search and presentation skill.

d5- Interact with other graduates all over the world.

3- Course contribution in the program ILOs:

Course ILOS		Program ILOS
A	**Knowledge and understanding**	a[13,14]
B	**Intellectual skills**	b[10]
C	**Professional and practical skills**	c[12]
D	**General and transferable skills**	d[1,2,3,5,6]

3.1- Course contents:

Topic	**Lecture hours**	**Practical hours**
Meat microbiology	8	8
Preservation of meat	4	2
Meat technology	6	6
Poultry meat hygeine	4	6
Fish and fish products	4	4
HACCP system in meat plant	2	2
Animal by-products	2	2
Total	**30**	**30**

The midterm and practical exams are included during the semester

3.2- ILOs matrix:

Topic	A) Knowledge and understanding	B) Intellectual skills	C) Professional and practical skills	D) General and transferable skills
Meat microbiology	a1	b1	c1	d1
Preservation of meat	a2	b3	c2	d2 to d5
Meat technology	a2,a3	b3,b4	c3,c4	d2 to d5
Poultry meat hygeine	a4,a5	b2	c1,c2,c5	d2 to d5
Fish and fish products	a6,a7	b6,b7	c1,c2,c6	d2 to d5
HACCP system in meat plant	a8	b5	c7,c8	d2 to d5
Animal by-products	a2,a3,a4,a7,a8	b2,b3,b4, b5	c1,c2,c3,c4,c5,c6	d2 to d5

4- Teaching, learning and assessment methods:

ILOs		Teaching and Learning methods							assessment method				
		L	P&M	D&S	P	Ps	Bs	Fv	semester	midterm	oral	practical	written
Knowledge and understanding	a1	x	x	x	**0**	**0**	x	0	x	x	x	**0**	x
	a2	x	x	x	**0**	**0**	x	0	x	x	x	**0**	x
	a3	x	x	x	**0**	**0**	x	x	x	x	x	**0**	x
	a4	x	x	x	**0**	**0**	x	x	x	x	x	**0**	x
	a5	x	x	x	**0**	**0**	x	x	x	**0**	x	**0**	x
	a6	x	x	x	**0**	**0**	x	x	x	**0**	x	**0**	x
	a7	x	x	x	**0**	**0**	x	x	x	**0**	x	**0**	x
	a8	x	x	x	**0**	**0**	x	x	x	**0**	x	**0**	x
Intellectual skills	b1	x	x	x	**0**	x	x	x	x	x	x	**0**	x
	b2	x	x	x	**0**	x	x	x	x	x	x	**0**	x
	b3	x	x	x	**0**	x	x	x	x	x	x	**0**	x
	b4	x	x	x	**0**	x	x	x	x	x	x	**0**	x
	b5	x	x	x	**0**	x	x	x	x	x	x	**0**	x
	b6	x	x	x	**0**	x	x	x	x	x	x	**0**	x
	b7	x	x	x	**0**	x	x	x	x	x	x	**0**	x
Professional and practical skills	c1	**0**	x	**0**	x	x	x	x	x	**0**	x	x	x
	c2	**0**	x	**0**	x	x	x	x	x	**0**	x	x	x
	c3	**0**	x	**0**	x	x	x	x	x	**0**	x	x	x
	c4	**0**	x	**0**	x	x	x	x	x	**0**	x	x	x
	c5	**0**	x	**0**	x	x	x	x	x	**0**	x	x	x
	c6	**0**	x	**0**	x	x	x	x	x	**0**	x	x	x
	c7	**0**	x	**0**	x	x	x	x	x	**0**	x	x	x
	c8	**0**	x	**0**	x	x	x	x	x	**0**	x	x	x
General skills	d1	x	**0**	**0**		**0**	**0**	**0**	x	**0**	x	**0**	x
	d2	x	**0**	**0**	x	**0**	**0**	**0**	x	**0**	x	**0**	x
	d3	x	x	**0**	x	**0**	**0**	**0**	x	**0**	x	**0**	x

	d4	x	x	x	**0**	**0**	**0**	**0**	x	**0**	x	**0**	x
	d5		**0**	**0**	**0**	**0**	**0**	**0**	x	**0**	x	**0**	x

L **:Lecture,** P&M**: Presentations & Movies,** D&S: **Discussions & Seminars PT: Practical training,** Ps: **Problem solving,** Bs: **Brain storming, Av: factory visit**

5- Assessment timing and grading:

Assessment method	timing	grade
Mid-term exam and semester work	6th week	15
Practical exam	14th week	20
oral exam	End of semester	15
Written exam	End of semester	50
total		100

6- List of references

6.1- Course notes:

A concise guide of meat hygiene for 5th graduate edited by staff members

6.2- Essential books (text books)

- Bn Kowale (2008) Methods in Meat Science
- Leo M.L. Nollet Fidel Toldra (2006) advanced technologies
- Peter Zeuthen (2003) Food Preservation Techniques
- Potter, N.N. (2001) Food science

6.3- Recommended books

- Course note
- Bn Kowale (2008) Methods in Meat Science.
- Peter Zeuthen (2003) Food Preservation Techniques

6.4- Periodicals, Web sites, . . . etc

- J. of food protection.
- J. of food technology
- Benha veterinary medical journal
- www.WHO.int.org
- www.ekb.eg

7- Facilities required for teaching and learning

- Teaching hall (Data show and White board)
- Equipped Department laboratory
- Farm animal education
- Central laboratory.

Course coordinator: **Prof Dr.** HEMMAT MOSTAFA IBRAHIM

Head of department **Prof Dr.** Mohamed Ahmed Mohamed

Signature …… Date 1/10/2019