



Beni-Suef University
Faculty of Veterinary Medicine

Course specification

1-Basic information

Course Code:	MST:5163
Course title :	Safety and technology of meat poultry and fish
Academic year:	5 th Academic year
Program title:	Bachelor of Veterinary Medical sciences
Contact hours/ week	4 hours/week, (2 Lect./week, 2 Practical/week)
Approval Date	

2-Professional information

Overall aims of course:

By the end of this course, the student should be able to explain abattoir construction and methods of slaughter of food animals, perform ante- mortem inspection and post mortem examination of food animals and giving a judgment for different affections and diseases affecting them. Moreover they will be able to list the parameters of meat keeping quality and production of high quality and safe meat, fish and poultry and recognize meat microbiology, meat spoilage and food poisoning.

3- Intended learning outcomes of course (ILOs)

a- Knowledge and understanding:

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

- a1. Define types of food animals and elicit abattoir (types, and construction) and abattoir related operations (ante-mortem inspection, post- mortem examination, and sanitation).
- a2. Outline meat borne diseases, food poisoning and meat spoilage.
- a3. Classify different diseases (parasitic, bacterial, viral and mycotic) and affections of meat, fish and poultry.
- a4. List the factors affecting the growth of microorganisms in food.
- a5. Distinguish lymph nodes of slaughtered animals.
- a6. List the factors affecting on meat quality as well as meat quality parameters.
- a7. Give examples for abnormal and general pathological conditions of food animals.

b-Intellectual skills

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

- b1. Recognize the post mortem changes and lesions in slaughtered animals.
- b2. Differentiate between healthy and diseased parts with the judgment on different affections of meat.
- b3. Compare between bacterial food infection and intoxication.

C-Professional and practical skills



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

- c1. Examine slaughtered animals (ante-mortem and post-mortem), fish and poultry.
- c2. Design an abattoir, Operate abattoir sanitation.
- c3. Apply HACCP system in abattoirs.
- c4. Operate laboratory examination of suspected meat, fish and poultry
- c5. Dispose rejected meat and carcasses hygienically.
- c6. Identify animal species by naked eye, physically, chemically and biologically.

d-General and transferable skills

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

- d1. Make decisions.
- d2. Manage time.
- d3. Work in group teams.

4-Topics and contents

Course	Topic	No. of hours	Lectures	Practical
5 th year- first semester, Meat hygiene Lec. 2hrs / week, pract. 2hrs/week	Food animals	1	1	-
	Abattoir	9	5	4
	Lymphatic system	4	2	2
	Identification of animal species	5	3	2
	Bacterial diseases	4	3	1
	Viral diseases	2	2	-
	Mycotic diseases	1	1	-
	Parasitic diseases	5	3	2
	Abnormal and general pathological conditions	5	3	2
	Affection of specific parts of the carcass	3	1	2
	Microbiology of meat	6	1	5
	Meat spoilage	4	2	2
	Food poisoning	4	4	-
	Hazard analysis critical control points (HACCP) system during meat production	3	3	-
	Keeping quality of meat	5	1	4
Chemical residues in meat	4	4	-	
Total		65	39	26

5-Teaching and learning methods

5.1- **Lectures:** depending on the sharing efforts of the students and supported with



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macromedia and multimedia aids.

5.2 **Training visits:** to abattoirs of animals and poultry.

5.3 **Practical sections:** Laboratory diagnosis of suspected meat, fish and poultry by chemical and microbiological methods, identification of meat species by laboratory methods.

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**

6-Teaching and learning methods for the students with disabilities

Office hours and special meeting

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	-	-	d1,d2
Practical Exam	-	b1 to b3	c1 to c6	-
Oral Exam	a1 to a7	b1 to b4	-	d1 to d2
Student activities	a1 to a7	-	-	d1 to d2

7.2. Assessment schedules/semester:

Method	Week(s)
Practical exam	During December
Written exam	Organized by the faculty administration
Oral Exam	Organized by the department
Student activities	Organized by the department

7.3. Weight of assessments/ semester:

Assessment	Weight of assessment
Practical exams	20%
Written exams	50%
Oral Exam	20 %
Student activities (posters, presentations, assays, ongoing exams.)	10 %
	100%



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8- List of references

8.1. Notes and books

Departmental notes on:

- Text book of Meat Hygiene, Professor/ Fathy Ahmed Khalafalla, 2000. .
Deposited No.17664

8.2. Essential books:

- Meat Hygiene (J.F. Gracey and D.S. Collins) , ninth edition, 1992(faculty library)
- Animal welfare and meat science (N.G.Gregory, 1998) (faculty library)

8.3. Recommended texts

- Microbial food poisoning (A.R. Eley, 1992) (Faculty library)
- Fundamental food microbiology (B. Ray, 1996) (Faculty library)
- Food microbiology (W.C. Frazier, 1978) (Faculty library)

8.4. Journals, Websitesetc

Journals:

- Journal of food protection
- International journal of food microbiology
- Meat science
- Journal of Food science

Websites:

- cms.nelc.edu.eg
- www.pubmed.com
- www.foodprotection.org
- www.sciencedirect.com
- www.IDF.com

Course Coordinator

Dr. Abdel-Rahim H.A. Hassan

Head of Department

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Topics		Week	Intended learning outcomes of course (ILOs)			
			K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
1.	Food animals	1	a1	-	-	
2.	Abattoir	1-3	a1	b1	c1, c2	
3.	Lymphatic system	3	A5	b3	c1	
4.	Identification of animal species	4	A1	-	c6	
5.	Bacterial diseases	5	a3	b2	c1,c5	
6.	Viral diseases	6	a3	b2	c1,c5	
7.	Mycotic diseases	6	a3	-	-	
8.	Parasitic diseases	7	a3	b2	c1	
9.	Abnormal and general pathological conditions	8	a7	b1,b2	c1	
10.	Affection of specific parts of the carcass	9	a3	b2	c1	
11.	Microbiology of meat	9	a6	b3	c4	
12.	Meat spoilage	9-10	a2	b3	c4	
13.	Food poisoning	10	a2	-	-	
14.	Hazard analysis critical control points (HACCP) system during meat production	11	a4	-	c3	
15.	Keeping quality of meat	12	a4,a6	-	-	
16.	Chemical residues in meat	12-13	a6	-	c4	
17.	Animal by-products	13	A5	-	-	



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