

COURSE SPECIFICATION

(2016 / 2017)

1- Basic Information:

Course title: **Meat Hygiene (A&B)**

Academic Year: **Fifth year of B. V. Sc. Program**

Total teaching hours: 150 hrs

- Lectures: 90

- Practical: 60

2- OVERALL AIMS OF THE COURSE:

The aim of the course is to provide the students with the basic knowledge of meat hygiene and to gain the skills to analyze meat samples and to write a report about the suitability of each sample for human consumption.

3 - INTENDED LEARNING OUTCOMES (I. L. Os.):

3-A: KNOWLEDGE and UNDERSTANDING:

By the end of the course, students should be able to:

- A1- Discuss the types of abattoir, bases of ante-mortem and post-mortem inspection
- A2- Describe bacterial, viral and parasitic diseases affecting meat.
- A3- Methods of slaughter and abnormal condition of food animals.
- A4- List the meat-borne pathogens from poultry, fish and ostrich.
- A5- Explain methods of meat preservation and technology
- A6- Recognize meat analysis residues and composition
- A7- Define animal byproducts and carcasses of different animals
- A8- Memorize rigor mortis

3-B: INTELLECTUAL SKILLS:

By the end of the course, students should be able to:

- B1- Judge the quality of meat at abattoirs.
- B2- Interpret the quality of meat products at the processing plants and markets.
- B3- Design and organize the appropriate quantitative and qualitative methodologies.
- B4- Conclude the important problem from case interaction, utilizing available.

3- C: PRACTICAL AND PROFESSIONAL SKILLS:

By the end of the course, students should be able to:

- C1-** Report the samples.
- C2-** Examine meat samples (chemically, microbiologically and for residue).
- C3-** Apply the methods to minimize the risks of contamination and cross infection.
- C4-** Differentiate meat of different animal.
- C5-** Conduct the HACCP system at the abattoirs, Processing plants and methods to confirm its correct application

3- D: GENERAL AND TRANSFERABLE SKILLS:

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

- D1-** Draw the way by which he should be able to work effectively as a member of a team in the delivery of services to community.
- D2-** Prioritize effective communication with the public, colleagues and appropriate authorities.
- D.3-** Apply communicating skills, have access to the internet and retrieve information.
- D.4-** Apply primary research techniques and critical evaluation.

4- COURSE CONTENTS:

4.A:- First semester topics:

TOPIC	Total hours (Semester)	Hours for lecture	Hours for practical
Types of abbatoirs	10	6	4
Antemortem Inspection	5	3	2
Postmortem inspection	10	6	4
Bacterial disease of food animals	10	6	4
Tuberculosis	5	3	2
Viral disease of food animals	5	3	2
Methods of animal slaughtering	5	3	2
Abnormal conditions of food animals	10	6	4
Parasitic diseases of food animals	5	3	2
Poultry meat Hygiene	10	6	4
Total	75	45	30



4.B:- Second semester topics:-

TOPIC	Total hours (Semester)	Hours for lecture	Hours for practical
Meat preservation	15	9	6
Meat technology	15	9	6
Fish meat hygiene	10	6	4
Ostrich meat hygiene	5	3	2
Meat residues	5	3	2
Meat analysis	5	3	2
Chemical composition of meat	5	3	2
Rigor mortis	5	3	2
Identification of animal species	5	3	2
Animal byproducts	5	3	2
Total	75	45	30

5- TEACHING & LEARNING METHODS:

*Lectures:

- (using data show, white board and overhead projector)

*Practical:

- 1: Practical training.
- (Practical demonstrations, practice of skills, and discussions)

* Site visits

- Two visits (one each term) to the abattoirs

* Self learning

- **Computer researches and faculty library visits to prepare essays and presentations.**
 - Library researches.
 - Internet researches.
 - Discussion in the researches.
 - Preparation of posters
 - Preparation of scientific reports.

* Audiovisual

- Video show.



6. METHODS FOR STUDENTS With limited capabilities:

- No disabled students until now, but if present the methods are:
 - Activation of office hours.
 - Discussion with them during practical session.

7. STUDENT ASSESSMENT:

<u>7.a Used methods</u>	Written examination	Oral examination	Practical examination	Activities
<u>7.b time</u>	after 15 th week of each term	after 15 th week of each term	In the 14 th week of each term	Presentations and some exams
<u>7.c grads</u>	50	20	20	10

8. LEARNING AND REFERENCE MATERIALS:

8-1: BASIC MATERIALS:

- **Department notes:** available for students to purchase from the department.

8-2: Recmonded books:

- 8.2.a- Warriss, P. D. (2001). Meat science: Cabi.
- 8.2.b- Brown, M. (2000). HACCP in the meat industry: Elsevier.
- 8.2.c- Hui, Y. H., Nip, W.-K. and Rogers, R. (2001). Meat science and applications: CRC Press.
- 8.2.d- Sara Martimore and Carole Wallace: HACCP A practical approach.
- 8.2.e- A.H.Varnam: Food borne pathogens. Wolfe publishing Ltd.
- 8.2.f- Toldrá, F. (2008). Meat biotechnology: Springer Science & Business Media.

8-3: SUGGESTED books:

- Hui, Y., Astiasaran, I., Sebranek, J., Talon, R. and Toldrá, F. (2014). Handbook of fermented meat and poultry: John Wiley & Sons.
- Nollet, L. M. and Toldra, F. (2015). Handbook of Food Analysis, -Two Volume Set: CRC Press.

8.4: web sites and jouranlsand so on

- WWW.PubMed.com
- Intrnational of veterinary information services (IVIS)
- www.Vet.net.com
- <http://www.sciencedirect.com/>

Intended learning out comes of each topic in the two semesters

TOPIC	K.U (a)	I.S (b)	P.P.S (c)	G.T.S (d)				
1 st Semester								
Types of abbatoirs	A1	B1-B4	C3,C5	D1-D2-D4				
Antemortem Inspection	A1	B1-B4	C3,C5	D1-D2-D4				
Postmortem inspection	A1	B1-B3-B4	C3,C5	D1-D2-D3-D4				
Bacterial disease of food animals	A2	B1 -B3-B4	C1- c2	D1-D2-D3-D4				
Tuberculosis	A2	B1-B2-B3-B4	C1- c2	D1-D2-D3-D4				
Viral disease of food animals	A2	B1-B2-B3-B4	C1- c2	D1-D2-D3-D4				
Methods of animal slaughtering	A3	B1-B3	C1	D1-D2				
Abnormal conditions of food animals	A3	B1-B2-B3-B4	C1	D1-D2-D3-D4				
Parasitic diseases of food animals	A2	B1-B2-B3-B4	C1-C2	D1-D2-D3-D4				
Poultry meat Hygiene	A4	B1-B2-B3-B4	C2-c3	D1-D2-D3-D4				
2 nd Semester								
Meat preservation	A4	B2-B3-B4	C2-c3	D1-D2-D3-D4				
Meat technology	A5	B2-B3-B4	C5	D1-D2-D3-D4				
Fish meat hygiene	A5	B1-B2-B3-B4	C5	D1-D2-D3-D4				
Ostrich meat hygiene	A4	B1-B2-B3-B4	C2-c3	D1-D2-D3-D4				
Meat residues	A6	B2-B3	C1- c2	D1-D2-D3-D4				
Meat analysis	A6	B2-B3	C1- c2	D1-D2-D3-D4				
Chemical composition of meat	A6	B2-B3	C1- c2	D1-D2-D3-D4				
Rigor mortis	A8	B2-B3	C2-c3	D1-D2-D3 -				
Identification of animal species	A7	B1-B2-B3-B4	C4-c5	D1-D2-D3-D4-D5				



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Animal byproducts	A7	B1-B4	C4-c5	D1-D2-D3-				
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Intended learning outcomes Evaluation

Methods	I.L.O.S Evaluation				Marks allocated
	Knowledge	Intellectual	Practical	general	
Written examination	A1.A2.A3.A4. A5	B1.B2			50
Oral examination	A1.A2.A3.A4. A5	B1.B2.B3.B4			2010
Practical examination		B1.B2.B3	C1.C2.C3.C4-c5	D4.	20
Activities		B3.B4		D1.D2.D3.D4	10

Course Coordinator

Head of Department

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