Specification for Meat hygiene and control course

2025/2026

1-Basic information

1.	**Course title**	Hygienic control of meat, Poultry and their products (Meat hygiene and control)							
2.	**Course code**	**501 -B**							
3.	**Department offering the course**	Food hygiene and control							
4.	**Number of hours**	**Theoretical**	**2**	**Practical**	**2**	**Other**	**0**	**Total**	**4**
5.	**Course Type**	√ **Obligatory** **Elective**							
6.	**Level**	5th year							
7.	**Semester**	Second semester							
8.	**Academic program**	Bachelor Veterinary medicine (BVM)							
9.	**Faculty**	Faculty of Veterinary medicine							
10.	**University**	Benha University							
11.	**Name of course coordinator**	**Prof \ Amani Mohamed Salem**							
12.	**Course Specification Approval Date**	Faculty council/ 27-8-2025							
13.	**Course Specification Approval (Attach the decision/minutes of the department /committee/council ....)**	Department council/							

2-Course overview

- **Course contents written in the program bylaw:**
- Bacterial , viral and parasitic diseases, meat products and HACCP system, fish and poultry meat hygiene.

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

	NARS ILOS		Course ILOS	
	Code	**Text**	**Code**	**Text**
Knowledge and Understanding	**2.8.**	Veterinary medications, uses, marketing, the impact of drug residues on human health and quality control of pharmaceutical practices.	**a6**	List the public hazards associated with marine toxins.
	2.13.	Public health, including food	**a1**	Describe the chemical composition of

		hygiene of animal origin and zoonotic diseases that are transmitted from animals to humans.		meat.
			a2	Identify the basics of meat technology and preservation, types of meat products and raw meat materials.
			a3	Describe the impact of on microbial changes in meat and foodborne diseases.
			a4	Explain the different procedures of ante-mortem and post-mortem poultry and rabbit inspection with common faults.
	2.14.	Basics of law and ethical codes relevant to animals and food hygiene.	**a7**	Identify appropriate methods for fish identification.
			a8	Explain of animal byproducts and its uses.
			a9	Explain chemical residues in meat (sources- types- health hazards).
			a10	Illstrate the impact of climate change on meat production
Intellectual skills	**4.5.**	Remain committed to life – long learning and updating / upgrading their biochemical sense and clinical skills.	**b1**	Differentiate between meat's microbiological changes.
			b2	Analyze the processing fault in the meat of the poultry and the rabbit.
			b3	Compare various preservation techniques.
			b4	Link between the final meat products' quality and the raw materials', meat ingredients', and binding meat particles' quality at the food processing facility..
			b5	Assess the sanitation and cleaning programmes and systems
			b6	Analyze the gathered information and come up with original solutions to the issues related to marine toxins.
			b7	Evaluate the most efficient methods for increasing the nutritional value of fish.
Practical and professional skills	**3.6.**	Write a report about hygiene and safety of food of animal origin for human consumption.	**c1**	Samples collection and preparation for microbiological examination.
			c2	Apply necessary physical and laboratory tests for examination of meat products.
	3.12.	Correctly deal with procedures related to food hygiene, public health issues, notifiable diseases and disposal of animal wastes	**c3**	Perform preservation methods of meat products.
			c4	write a report about poultry and rabbit meat processing and by product
			c5	Implement several strategies for fish quality control
			c6	Improve Hygienic designs of meat

				factory
			c7	Apply control of hygienic measures.
General and Transferable Skills	**5.1.**	Work under pressure and / or contradictory conditions	**d1**	Work under pressure and/or in a contradictory environment in contain codes.
	5.2.	Function in a multidisciplinary team	**d2**	Work as part of a multidisciplinary team to complete a research paper.
	5.3.	Communicate appropriately verbally and nonverbally	**d3**	Communicate with lecturers and classmates both verbally and nonverbally.
	5.5.	Search for new information and technology as well as adopt life–long self learning ethics	**d4**	Search and presentation abilities

4- Teaching and learning methods					
Lectures	√	**Discussion & seminar (self-learning)**	√	**Practical**	√
Presentation & movies	√	**Problem solving**	√	**Brain storming**	√
Others	**Abattoir visit**				

- Course contents:

Number of the Week	**Scientific content of the course (Course Topics)**	**Expected number of the Learning Hours**				
		Total Weekly hours	**Theoretical teaching (lectures/discussion groups/ .....)**	**Training (Practical/ Clinical/ .....)**	**Self-learning (Tasks/ Assignments/ Projects/ ...)**	**Other**
W1	Sources of Meat Contamination.	**4**	**1**	**2**		**0**
	Meat Spoilage.		**1**			
W2	Foodborne diseases	**4**	**1**	**2**		**0**
	Food poisoning		**1**			
W3	Meat Chemistry	**4**	**2**	**2**	**Formative quiz(self-learning)**	**0**
W4	Meat Preservation(1)	**4**	**2**	**2**		**0**
W5	Meat Preservation(2)	**4**	**1**	**2**		**0**
	Meat technology (1)		**1**			

W6	Meat technology (2)	**4**	**2**	**2**	**Formative quiz(self-learning)**	**0**
W7	**Semester works and Mid-term exam**					
W8	Poultry Slaughtering& processing	**4**	**1**	**2**		**0**
	Application of HACCP		**1**			
W9	Affections & Pathological ons of Poultry& rabbits.	**4**	**1**	**2**	**Formative quiz(self-learning)**	**0**
	Affections & Pathological conditions of Poultry& rabbits.		**1**			
W10	Fish hygiene (1)	**4**	**2**	**2**		**0**
W11	Fish hygiene (2)	**4**	**1**	**2**		**0**
	Animal byproducts(1)		**1**			
W12	Animal byproducts(2)	**4**	**2**	**2**	**Formative quiz(self-learning)**	**0**
W13	Chemical residues	**4**	**2**	**2**		**0**
W14	Impact of climate change on meat production	**4**	**2**	**2**		**0**
W15	**Practical exam**					

5- Assessment timing and grading:

a- Assessment methods (summative and formative)

1. **Formative assessment**: including (weekly quizzes, homework assignments and surveys).
2. **Summative assessment** including (quizzes, class activates, Mid-term exam, practical exam, oral exams and final written exams).

b- Assessment schedule and weight

Assessment method	Timing	Grade	Percent
Mid-term exam	7^{th} week	15	15%
Assignments / Project /Portfolio/ Logbook	Every 2 weeks		
Formative assessment	Throughout semester	-	-
Practical exam	15^{th} week	20	20%
oral exam	End of semester	15	15%

Written exam	End of semester	50	50%
Total		100	100%

6- Learning resources and supportive facilities:

Learning resources	**Main reference**	**Student handbook**
	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 • Bn Kowale (2008) Methods in Meat Science.
	Periodicals, Web sites, . . . etc	• J. of Food Protection. • J. of Food Technology • Benha veterinary medical journal • www.WHO.int.org • www.ekb.eg
	Learning platform	Thinqi
supportive facilities	**Devices & instruments**	**Devices** • Autoclave sterilizer • Microbiological incubator • Hot air sterilizer (oven) • Homogenizer • pH meter • Sample cooling and freezing units **Instruments:** • **Sterile sample containers** • Gloves and masks • Various culture media • Chemical reagents for meat • Formalin and glycerin for sample preservation • Petri dishes • Various glassware • Fish preservation containers • Fish samples for dissection
		• Teaching hall (Data show and White board)

		• Equipped Department laboratory • Farm animal education • Central laboratory

Matrices:

A- Content and ILOs matrix:

Topic	A) Knowledge and understanding	B) Intellectual skills	C) Professional and practical skills	D) General and transferable skills
Sources of Meat Contamination. Meat Spoilage	**a1**	**b1**	**c1**	**d1**
Foodborne diseases Food posoning	**a2**	**b3**	**c2**	**d2 to d4**
Meat Chemistry	**a2,a3**	**b3,b4**	**c3,c4**	**d2 to d4**
Meat Preservation(1)	**a4,a5**	**b2**	**c1,c2,c5**	**d2 to d4**
Meat Preservation(2) MeatTechnology(1)	**a6,a7**	**b6,b7**	**c1,c2,c6**	**d2 to d4**
Meat Technology(2)	**a8**	**b5**	**c7**	**d2 to d4**
Poultry Slaughtering HACCP	**a2,a3,a4,a7,a8**	**b2,b3,b4,b5**	**c1,c2,c3,c4,c5,c6**	**d2 to d4**
Affections & Pathological conditions of Poultry& rabbits.	**a2, a6,a7,a8**	**b4,b5,**	**a2, a6,a7,a8**	**d2 to d4**
Fish hygiene(1)	**a2, a6,a7,a8**	**b4,b5,**	**a2, a6,a7,a8**	**d2 to d4**
-Fish hygiene(2) -Animal byproducts(1)	**a2, a6,a7,a8**	**b4,b5,**	**a2, a6,a7,a8**	**d2 to d4**
Animal byproducts(2	**a2, a6,a7,a8**	**b4,b5,**	**a2, a6,a7,a8**	**d2 to d4**
Chemical Residues	**a9**	**b4,**	**a9**	**d2 to d4**
Impact of climate change on meat production.	**a10**	**b5,b6,b7**	**a10**	**d2 to d4**

B- Teaching and learning methods and ILOs matrix:

Course ILOs		Teaching and Learning methods						
		L	P&M	D&S	P(TPL)	Ps	Bs	ATP
Knowledge and	**a1**	√	√	√			√	

understanding	**a2**	√	√	√			√	
	a3	√	√	√			√	√
	a4	√	√	√			√	√
	a5	√	√	√			√	√
	a6	√	√	√			√	√
	a7	√	√	√			√	√
	a8	√	√	√			√	√
Intellectual skills	**b1**	√	√	√		√	√	√
	b2	√	√	√		√	√	√
	b3	√	√	√		√	√	√
	b4	√	√	√		√	√	√
	b5	√	√	√		√	√	√
	b6	√	√	√		√	√	√
	b7	√	√	√		√	√	√
Professional and practical skills	**c1**		√		√	√	√	√
	c2		√		√	√	√	√
	c3		√		√	√	√	√
	c4		√		√	√	√	√
	c5		√		√	√	√	√
	c6		√		√	√	√	√
	c7		√		√	√	√	√
General skills	**d1**	√						√
	d2	√			√			√
	d3	√	√		√			√
	d4	√	√	√				√

L: Lecture**, P&M:** Presentations & Movies**, D&S:** Discussions & Seminars (self-learning), **P(TPL):** Practical, **Ps:** Problem solving, **Bs:** Brain storming**, ATP:** Abattoir visit, Training, Project

C- Assessment methods and ILOs matrix:

Course ILOs		**assessment method**				
		Formative assessment	**Mid-term exam**	**Oral**	**Practical**	**Written**
Knowledge and understanding	**a1**	√	√	√		√
	a2	√	√	√		√
	a3	√	√	√		√
	a4	√	√	√		√
	a5	√	√	√		√
	a6	√	√	√		√
	a7	√	√	√		√
	a8	√	√	√		√
Intellectual skills	**b1**	√	√	√		√
	b2	√	√	√		√
	b3	√	√	√		√
	b4	√	√	√		√
	b5	√	√	√		√

	b6	√	√	√		√
	b7	√	√	√		√
Professional and practical skills	**c1**	√		√		
	c2	√		√		
	c3	√		√		
	c4	√		√		
	c5	√		√		
	c6	√		√		
	c7	√		√		
General skills	**d1**	√				
	d2	√				
	d3	√				
	d4	√				

Name and Signature
Course Coordinator

Prof. Amani Mohamed Salem

Name and Signature
Program Coordinator

Prof. Dr. Mahmoud Abouelroos