



## Course Descriptor VTMD584 Milk & Meat Hygiene Lab

<b>Proposed Academic Year</b>	2021 - 22	<b>Last Reviewed Academic Year</b>	
<b>Course Code</b>	VTMD584	<b>Course Title</b>	Milk & Meat Hygiene Lab
<b>Credit hours</b>	1	<b>Level of study</b>	Undergraduate
<b>College / Centre</b>	CAHS	<b>Department</b>	VTMD
<b>Co-requisites</b>	VTMD514	<b>Pre-requisites</b>	VTMD283

### 1. COURSE OUTLINE

The course provides an introduction to the safety and suitability of milk and milk products to protect consumers' health. From the time milk leaves the udder of the animal, unless adequate safeguards are maintained, it may receive bacteria and other micro-organisms from the surroundings, for example the milker and other equipment used in milk processing, storage and transportation. Hence the necessity for the study of milk hygiene.

### 2. AIMS

The course aims to give students an introduction to the safety and suitability of milk and milk products to protect consumers' health. The course gives an overview of handling milk production and meat preservation.

### 3. LEARNING OUTCOMES, TEACHING, LEARNING and ASSESSMENT METHODS

<b>Learning Outcomes (Definitive)</b>	<b>Teaching and Learning methods (Indicative)</b>	<b>Assessment (Indicative)</b>
Upon successful completion of this course, students will be able to:		
1. Recognize the safety and suitability of milk and milk products to protect consumers' health	Lecture and Demonstration Lab Work ,Group work	Lab work sheet, Pre lab assignment
2. Inspect meat safety for food consumption.	Lecture and Demonstration Lab Work ,Group work	Lab work sheet, Pre lab assignment Quiz
3. Describe milk processing, storage and transportation.	Lecture and Demonstration Lab Work ,Group work	Lab work sheet, Pre lab assignment Practical Examination
4. Describe meat processing, storage and transportation.	Lecture and Demonstration Lab Work ,Group work	Lab work sheet, Pre lab assignment

### 4. ASSESSMENT WEIGHTING

<b>Assessment</b>	<b>Percentage of final mark (%)</b>
Assignment	20%
Lab report	20%



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Mid-term Examination	20%
Final Examination	40%
<b>TOTAL</b>	<b>100%</b>

### 5. ACHIEVING A PASS

Students will achieve **1** credit hours for this course by passing **ALL** of the course assessments [*Quizzes, Mid-term, Final Examination\**] and achieving a **minimum overall score of 50%**

***NB \*Ensure that ALL learning outcomes are taken into account***

### 6. COURSE CONTENT (Indicative)

Milk hygiene:

- Milk hygiene in relation to public health.
- Microbial flora of milk and milk products.
- Sources of milk contamination during collection and transport of milk and processing of dairy products.
- Control of milk and milk product contamination.
- Hygienic handling/
- management of dairy equipment Quality control of milk and milk products.
- Milk hygiene
- practices in Oman and other countries.
- Legislation and standards for milk and milk products.

Milk as a source of disease transmission.

Meat hygiene:

- Pathological conditions associated with the transport of food animals.
- Elements of meat inspection.
- Hygiene in abattoirs.
- Ante-mortem inspection of meat animals.
- Humane and Halal slaughter of animals.
- Postmortem inspection of meat animals.
- Methods of inspection of meat.
- Rigor mortis and examination of lymph nodes. Speciation of meat.
- Health implications of emergency and causality slaughter.
- Hygienic disposal of unsound meat.
- Inspection of poultry and aquatic foods (fish) for human consumption.
- Occupational health hazards in meat processing plants.
- Meat as a source of disease transmission.



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- Food safety, definition, hazard analysis and critical control point (HACCP) system and
- chemical and microbial toxicities associated with milk, meat and aquatic foods.
- Risk analysis: assessment and management and food safety measures.
- Toxic residues (pesticides, antibiotics, metals and hormones) and microbial toxins in food and their health hazards.
- Types of bio-hazards.

Sanitary and phytosanitary measures in relation to foods of animal origin and aquatic foods.

International and national food safety standards {Office International des Epizootics (OIE), World Trade Organisation (WTO), Sanitary and Phytosanitary (SPS) and Codex Alimentarius.

<b>TOTAL HOURS</b>	<b>42</b>
Plus <b>RECOMMENDED INDEPENDENT STUDY HOURS</b>	<b>15</b>
<b>TOTAL COURSE HOURS</b>	<b>57</b>

**7. RECOMMENDED REFERENCES**

**Core text/s:**

W.G. Wilson (Editors): Wilson's Practical Meat Inspection, 7th Ed. Blackwell Publishing. (2005)  
S.M. Saad, A.M. Edris (Editors): Notes on Meat Hygiene. Faculty of Veterinary Medicine Moshtohour-Benha-Branch Zagazig University. (2012).

**Library + online resources:**

**Open Educational Resources:**