



Jordan University of Science and Technology
Faculty of Veterinary Medicine
Veterinary Medicine And Surgery Department

VM361 Milk Hygiene

Summer Semester 2020-2021

Course Catalog

2 Credit Hours. This course will focus on the safety of milk and milk products in addition to hygienic practices during the production of milk from farm to consumer. The key topics include (1) the components of milk of different animal species such as cow, sheep, goat and camel milk, hygiene practice and sanitation at farm level, raw milk chemical and biological hazards, heat treatment of milk, dairy fermentation and dairy products. Special Middle Eastern products, hygiene and sanitation at dairy processing factors and environmental monitoring, HACCP and international regulation. In addition, egg safety is covered.

Text Book

Title	Advanced Dairy Science and Technology
Author(s)	Britz and Robinson
Edition	1st Edition
Short Name	Ref # 1
Other Information	

Instructor

Name	Prof. Mohammad Obaidat
Office Location	C1-L1 and C1-L2
Office Hours	
Email	mmobaidat@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Sun, Mon, Tue, Wed : 16:30 - 17:30
Room: منصة الكترونية

Prerequisites		
Line Number	Course Name	Prerequisite Type
662351	VM235 Veterinary Bacteriology And Mycology Laboratory	Prerequisite / Study

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Milk Biosynthesis, Chemistry and Physical Properties	From Ref # 1
Week 1	Sheep, Goat and Camel Milk	From Ref # 1
Week 2	Practical Food Safety Interventions for Dairy Production	From Ref # 1
Week 2	Relationship of Somatic Cell Count and Mastitis: An Overview	From Ref # 1
Week 3	Thermal Processing of Milk	From Ref # 1
Week 3	Dairy Fermentation: Starter Cultures in Dairy Industry	
Week 4	Processed Dairy Products	From Ref # 1
Week 4	Thermophilic Bacilli and Their Importance in Dairy Processing	From Ref # 1
Week 5	Hygiene in Dairy Processing Plant	From Ref # 1
Week 6	Safety and Public Health Concerns of Dairy Products	
Week 7	Implementing HACCP and ISO 22000 for Foods of Animal Origin	
Week 7	Health Benefits of Milk and Dairy Products	
Week 8	International Regulations of Milk and Dairy Products	
Week 8	Eggs and eggs product safety	

Mapping of Course Outcomes to Program Student Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Identify the major characteristics of milk from different species [11]	15%	
Identify the appropriate methods and interventions of pre-harvest milk safety [12]	5%	
Know the different methods of milk heat treatment [13]	10%	
Learn the major problem and solution in dairy processing plant	10%	
Learn about the starter cultures used in dairy products, common problems of starter cultures and their solutions	10%	
Learn the major steps for manufacturing different dairy products	10%	
Know the chemical and microbiological hazards associated with dairy products	10%	
Know the HACCP system and its applications in dairy industry	10%	

Learn about the international regulations related to dairy hygiene	10%	
Learn the safety of egg and egg products	10%	

Relationship to Program Student Outcomes (Out of 100%)									
1	2	3	4	5	6	7	8	9	10
15	5	10							

Policy	
Cheating	University Regulation Will Be Applied
Attendance	University Regulation Will Be Applied- Only 20% is allowed (7 lectures absence will dismiss you from the class). Attendance will be taken and entered online at end of each lecture. Bonus grades if given will be based on attendance
Makeup exams	According to University regulations- Requires a valid excuse approved by the Dean of Faculty of Veterinary Medicine

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