

Jordan University of Science and Technology
Faculty of Vet. Medicine
Department of Pathology and Animal Health

Course Information	
Course Title	Milk Hygiene
Course Number	VM 461
Prerequisites	
Course Website	NA
Instructor	Prof. Akram R. Alaboudi
Office Location	C1 L3
Office Phone	22069
Office Hours	TBA
E-mail	akrrish@just.edu.jo
Teaching Assistant	TBA
Course Description	
The course cover the hygienic measures required to produce good quality milk starting from farm level and passing through transportation ,dairy plant treatments and finally distribution and marketing. Dairy products processing and safety are also discussed. Egg quality, storage and spoilage are also included ..HACCP system and its application in dairy production is introduced.	

Text Book	
Title	Milk and Milk Product
Author(s)	Varnam , Sutherland
Publisher	Chapman and Hall
year	1996
Edition	First
Book Website	NA
References	/

Assessment Policy		
Assessment Type	Expected Due Date	Weight
First Exam	TBA	15+ 8 (lab)
Second Exam	TBA	15+7 (lab)
Final Exam	TBA	40
Assignments	TBA	15

Course Objectives	Weights
1. Production of Clean Milk	20%
2. Heat Treatment of Milk	25%
3. Milk Spoilage	15%
4. Dairy product processing and Hygiene	20%
5. Microbiological criteria and Quality	10%
6. Egg hygiene	10%

Teaching & Learning Methods

Two lectures per week.

1 3hrs lab

Visits to dairy farm and dairy plant

Learning Outcomes: Upon successful completion of this course, students will be able to
 1-assure safe milk production, storage and transportation.2- Supervising different aspects of milk treatments and marketing 3- Avoiding contamination, harmful pathogens and chemical or toxic residues 4- Familiar with different milk products processing and preservation 5-Determination of egg quality , grading and preservation

Useful Resources

Code of Hygiene Practice for Milk / FAO

Course Content

Week	Theoretical	Lab
1	Definitions on milk hygiene. Milk as important food	Milk sampling. Physical properties of normal mil;
2,3	Chemical composition	Determination of fat and protein percentages
4,5	Factor affecting milk yield and composition	Lactose, Total solids and Ash %
5	Clean milk production	Quality control tests
6	Dairy microbiology .Hygienic measures at farm level	Microbiological examination and detection of harmful residues
7	Milk-borne diseases	Keeping quality tests . Sub-clinical mastitis detection
8,9	Heat treatment	Visit to dairy farm. Efficiency of heat treatment
10	Cream and butter processing and safety	Chemical, sanitary and microbiological examination of cream and butter
11	Cheese	Examination of cheese and fermented dairy products
12	Fermented, Concentrated and Dried milk products	Examination of milk powder, concentrated milk and ice cream
13	Frozen dairy product. Milk by-products	Visit dairy plant
14	Quality assurance (HACCP, GMP, Microbiological criteria)	Application in quality control
15	Egg hygiene	Egg quality examinations

Additional Notes	
Assignments	Lab, assignment are due on next lab hrs
Exams	Multiple choices, short assays and blanks filling
Cheating	University regulation will be applied
Attendance	90% of lectures should be attend, otherwise zero grade is assigned
Workload	
Graded Exams	Graded exam papers are available for inspection within 7-10 days after examination
Participation	Participation and contribution to discussion affect your grade positively
Laboratory	Missing 3 labs will badly affect your grade
Projects	All projects if assigned are to be done individually.