

University: Damanhour
Department: Food Hygiene

Faculty: Veterinary Medicine

Milk Hygiene Course Specifications (2010 - 2011)

Program(s) on which the course is given: BVSc
Department offering the program: ---
Department offering the course: Food Hygiene
Major or Minor element of programs: Major
Academic year /Level: 4th Year 2 Semesters
Date of specification approval:

A. BASIC INFORMATION

Title: Milk Hygiene

Code: 4AMIL, 4BMIL

Hours:

Lectures 3 hrs/week

Practical 2 hrs/week

Total 150 hrs

B. PROFESSIONAL INFORMATION

1. Overall aims of the course:

- Knowledge: about Composition of milk, Milk production and biosynthesis of milk, milk of other dairy lactating animals, Nutritive value of milk, physical properties, milk constituents, Effect of diseases on Milk constituents, Dairy microbiology, Milk-borne diseases, microbial infection and intoxication, toxicology of milk, clean milk production, heat treatment of fluid milk, Quality assurance and production control, Criteria for evaluation of milk and dairy products, table eggs and edible fat and oils.
- Skills: assisted detection of adulteration of milk and dairy products, detection of abnormal milk, detection of physical properties, tests for hygienic quality, chemical analysis of milk and dairy products.

2. Intended Learning Outcomes (ILOs) of the Course:

a. Knowledge and Understanding:

- a1** Composition of milk, Nutritive value of milk, physical properties, milk constituents, Effect of diseases on Milk constituents, Milk production and biosynthesis of milk, milk of other dairy lactating animals, dairy microbiology, milk-borne diseases, microbial infection and intoxication, toxicology of milk, clean milk production, heat treatment of fluid milk.
- a2** Technology, contamination, spoilage, quality defects, sampling and preparation, chemical analysis, detection of adulteration, sanitary and microbiological examination and Criteria for evaluation of dairy products.
- a3** Physical and Chemical constant of edible fats and oils, Egg quality defects, assessment of egg quality, Microbiology of eggs , preservation and processing of eggs and eggs product.

b. Intellectual Skills:

- b1** Analysis of fluid milk, dairy products, edible fat and oil and table eggs with required laboratory.
- b2** Creative thinking to health control measure for milk production and dairy products technology.

c. Professional and Practical Skills:

- c1** Detection of abnormalities of various samples and solving measures.
- c2** Solving technology problem by applying HACCP, quality assurance, quality control programs to ensure the safety and quality of the products.
- c3** Applying GMP programs on dairy farm and plant basis to sustain and improve product quality.

d. General and Transferable Skills:

- d1** Good communications.
- d2** Use of new technology.
- d3** Group working, good management and problem solving ability.

3. Contents:

1st Semester			
Topic	No. of		
	hours	Lectures	Practical
Fluid milk	25	15	10
Milk constituents and effect of diseases	25	15	10
Dairy microbiology	25	15	10
2nd Semester			
Dairy hygiene, criteria, heat treatment and clean milk production	15	5	10
Quality assurance and food safety	15	10	5
Dairy products (composition, manufacture, microbiology, hygiene, defects and control)	15	10	5
Edible fats and oils	15	10	5
Table eggs	15	10	5
Total	150	90	60

4. Teaching and Learning Methods:

- 4.1** Lectures and practical of every topic in the course.
- 4.2** Collection of some information from text books.
- 4.3** Field visits (farms, Dairy plants).

5. Student Assessment Methods:

Exam		
5.1	Written Mid-term	To assess the ability to understand and remember knowledge, and intellectual skills
5.2	Written Final-term	To assess the ability to understand and remember knowledge, and intellectual skills
5.3	Practical Final-term	To assess professional and practical skills
5.4	Oral Final-term	To assess skills of analysis and discussion

Assessment Schedule (in each semester):

	Exam	Week
Assessment 1	Written Mid-term	8 th
Assessment 2	Written Final-term	16 th
Assessment 3	Practical Final-term	16 th
Assessment 4	Oral Final-term	16 th

Weighing of assessments

	Exam	Per Semester (%)	Total (%)
Assessment 1	Written Mid-term	10	20
Assessment 2	Written Final-term	25	50
Assessment 3	Practical Final-term	10	20
Assessment 4	Oral Final-term	5	10
	Total	50	100

6. List of References:

6.1. Course Notes:

- Lecturers Notes (not Printed)

6.2. Essential Books:

- Ray (Fundamental Food Microbiology)
- Adams and Moss (Food Microbiology)
- Marth and Steel (Applied dairy microbiology)

6.3. Recommended Books:

- Ray (Fundamental Food Microbiology)

6.4. Periodicals, websites, etc

- Nothing

7. Facilities Required for Teaching and Learning

- Microscopes, computers (Personal & Notebook)
- Overhead projectors and video tapes
- Audio and video aids, mobile screens for exhibition

Course Coordinator:

Head of Department: Prof. Dr. Ebeed A. Saleh

Date: