Milk Hygiene Course Specifications (٠١٢ - 2013)

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
Semesters
Date of specification approval:

A. BASIC INFORMATION

Title: Milk Hygiene
Code: ٤AMIL, ٤BMIL
Hours:
   Lectures  ٣ hrs/week
   Practical  ٢ hrs/week
   Total  ٠٥١ 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:
      a١ 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.
      a٢ Technology, contamination, spoilage, quality defects, sampling and preparation, chemical
         analysis, detection of adulteration, sanitary and microbiological examination and Criteria for
         evaluation of dairy products.
      a٣ 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:
   b۱ Analysis of fluid milk, dairy products, edible fat and oil and table eggs with required laboratory.
   b۲ Creative thinking to health control measure for milk production and airy products technology.

c. Professional and Practical Skills:
   c۱ Detection of abnormalities of various samples and solving measures.
   c۲ Solving technology problem by applying HACCP, quality assurance, quality control programs to ensure the safety and quality of the products.
   c۳ Applying GMP programs on dairy farm and plant basis to sustain and improve product quality.

d. General and Transferable Skills:
   d۱ Good communications.
   d۲ Use of new technology.
   d۳ Group working, good management and problem solving ability.

٤. Contents:

<table>
<thead>
<tr>
<th>Topic</th>
<th>1st Semester</th>
<th>2nd Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>No. of hours</strong></td>
<td>Lectures</td>
<td>Practical</td>
</tr>
<tr>
<td>Fluid milk</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Milk constituents and effect of diseases</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Dairy microbiology</td>
<td>25</td>
<td>15</td>
</tr>
<tr>
<td>Dairy hygiene, criteria, heat treatment</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>and clean milk production</td>
<td></td>
<td></td>
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<tr>
<td>Quality assurance and food safety</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Dairy products (composition, manufacture,</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>microbiology, hygiene, defects and control</td>
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<td></td>
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<tr>
<td>Edible fats and oils</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Table eggs and ostrich egg</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>150</td>
<td>90</td>
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٤. Teaching and Learning Methods:
   ۴.۱ Lectures and practical of every topic in the course.
   ۴.۲ Collection of some information from text books.
   ۴.۳ Field visits (farms, Dairy plants).

٥. Student Assessment Methods:
   
   **Exam**
   
   ۵.۱ Written Mid-term To assess the ability to understand and remember knowledge, and intellectual skills
   ۵.۲ Written Final-term To assess the ability to understand and remember knowledge, and intellectual skills
   ۵.۳ Practical Final-term To assess professional and practical skills
   ۵.۴ Oral Final-term To assess skills of analysis and discussion
Assessment Schedule (in each semester):

<table>
<thead>
<tr>
<th>Exam</th>
<th>Week</th>
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<tbody>
<tr>
<td>Written Mid-term</td>
<td>8th</td>
</tr>
<tr>
<td>Written Final-term</td>
<td>16th</td>
</tr>
<tr>
<td>Practical Final-term</td>
<td>16th</td>
</tr>
<tr>
<td>Oral Final-term</td>
<td>16th</td>
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</tbody>
</table>

Weighing of assessments

<table>
<thead>
<tr>
<th>Exam</th>
<th>Per Semester (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written Mid-term</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Written Final-term</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Practical Final-term</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Oral Final-term</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>50</td>
<td>100</td>
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List of References:

1. Course Notes:
   - Lecturers Notes (not Printed)

2. Essential Books:
   - Ray (Fundamental Food Microbiology)
   - Adams and Moss (Food Microbiology)
   - Marth and Steel (Applied dairy microbiology)

3. Recommended Books:
   - Ray (Fundamental Food Microbiology)

4. Periodicals, websites, ..... etc
   - Nothing

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: Prof. Dr. Ahlam Ameen Eleboudy

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

Date: