**Milk Hygiene (A) (FOH. 416)**

**Overall aims of the Course:**

By the end of the course the student should be able to

1. Define the physical, chemical, and microbiological characteristics of normal milk.
2. Pursue evaluation of the keeping quality of milk.
3. Master the main tools of laboratory diagnosis of milk adulteration.
4. Monitor and detect the presence of residues in milk.
5. Evaluate the microbiological quality of milk.
6. Study & know sings of subclinical mastitis.
7. Define & learning of HACCP system.
8. Make use of library facilities and its tools efficiently and explore high Proficiency in computer/keyboard skills.

**Course contents:**

* Introduction- lactation cycle- milk secretion-colostrum- composition-nutritive value- sources of milk contamination- factors affecting microbial growth.
* Hygienic quality of milk.
* Normal fermentation of milk –abnormal changes
* diseases transmitted through milk and milk products & their control measures- Clean milk production.
* Milk enzymes- heat treatment of milk-effect of heat treatment on milk composition and method of detection.
* Milk residues (chemical hazard (antibiotic, hormones, heavy metals, aflatoxin)
* Laboratory diagnostic method for detection of subclinical mastitis
* Cleaning and sanitizing of dairy equipment & utensils
* Isolation of some pathogens
* HACCP overview