FT304  FOOD SAFETY AND MICROBIAL STANDARDS

Course Description & Objectives:
This course will impart the knowledge to students about Food safety and microbial standards.
By the end of the course students will be able to understand various Food safety and microbial standards and toxins both natural and synthetic used in food processing and Sanitation principles.

Course Outcomes:
By the end of the course, the students will be able to
1. Understand about toxins from bacteria and fungi.
2. Know about different food additives, anti-nutrients, anti-vitamins used in food processing.
3. Understand about heavy metal contamination in foods.
4. Understand about food safety and microbial standardization.

UNIT I - Food Spoilage

UNIT II - Introduction to Mycotoxin and metal toxin
Mushroom toxins, Different species of poisonous mushrooms, Poisoning or disorders due to poisonous mushrooms. Control of mycotoxins in food and Food Technology
feed. Algal toxins - Paralytic shell fish poisoning, Ciguatera poisoning, cyanobacterial toxins, Scombro toxic Fish poisoning, - Types of food involved - toxicity and symptoms - Chemical properties - Environmental conditions.


UNIT III- Pesticide and Antinutrients in food


UNIT IV - Food safety and HACCP

Antimicrobial agents - Miscellaneous chemical preservatives - Chitosans, Dimethyl bicarbonate, Ethanol, Glucose oxidase, Polyarnino acids.

UNIT V - Food laws & Standards


TEXTBOOKS:
1. James M.Jay, Martin J. Loessner and David A. Golden; Modern Food Microbiology, 1999.
2. John de Vries Food Safety and Toxicity CRC Press, 2000

REFERENCES: