Subject Code : P8MBE2

Elective Course 2: Food and Dairy Microbiology

Unit 1:

Introduction- Importance of food and dairy microbiology- Types of microorganisms in Food Spoilage source of contamination- Factors influencing microbial growth in food

Unit 2:

Food fermentations: methods of fermentations and organisms used -Cheese, bread, wine, beer. Fermented vegetables. Food and enzymes from microorganisms-single cell protein. Production of amylase and protease.

Unit 3:

Contamination, spoilage and preservation of cereals and cereals products, sugar and sugar products, Vegetables and fruits, meat and meat products – fish and othe sea foods, egg and poultry – dairy and fermentative products (ice cream, Yoghurt and Kefir)

Unit 4:

Food borne diseases, intoxication and food poisoning – *Staphylococcus, Clostridium, Escherichia coli and Salmonella* infections, Hepatitis, Amoebiosis and Mycotoxins. EHEC and enteropathogens – general food contamination.

Unit 5:

Food preservations: principles- methods of preservations-Physical and chemical methods, food sanitations. Good manufacturing practices (GMP)-hazard analysis, critical control points and personnel hygiene.

Reference

Frazier and Westhoff, DC. 1988. Food Microbiology. TATA McGraw Hill Publishing Company LTD., New Delhi

Adams, M.R and Moss, MO. 1995. Food Microniology. The Royal Society of Chemistry, Cambridge.