

Food Microbiology

(One Year Certificate Course)

SEMESTER - I

Unit1 - Introduction to Food Microbiology, History, Development and Scope of Food Microbiology

Unit 2 - Food as Substrate for Microbes, Microbial Growth in Foods, Characteristics of Microorganisms in Food

Unit 3 - Cultivation of Microorganisms, Sterilization, Staining of Microorganism

Unit 4 - Food spoilage by Microorganisms, Contamination and Spoilage of Fish, Meat, Poultry and Egg

☐ Visit to Food Industries

Practical

- a. Isolation and Identification of microorganism
- b. Study of Growth curve of Microorganism
- c. Methylene blue reduction test for milk
- d. Isolation of bacteria from Food sample
- e. Microbial examination of Canned food
- f. Production of ethanol/wine by fermentation

Semester - II

Unit 1- Enzyme technology: Application and production of enzymes

Unit 2 - Edible Mushroom, Preservation and cultivation

Unit 3 - Modern Technologies in Food Preservation, Food poisons

Unit 4 – Microbial production of organic solvents Alcohol, acetone and butanol

Unit 5 - Microbial production of organic acids Citric acid, Lactic Acid and Acetic acid

One month Job Training Project in Food Industries