Course No.	Course Name	L-T-P - Credits	Year of Introduction
FT231	**Food Microbiology Lab - I**	**0-0-3-1**	**2016**

Prerequisite : FT201 Food microbiology

Course Objectives

To gain knowledge in different types microorganism related to food and scientific methods for microbial analysis.

List of Exercises/Experiments : (Minimum 12 are mandatory)

1. Introduction to microbiology &Laboratory instructions, Microscopy
2. Sterilization techniques, Disinfection
3. Culture media
4. Preparation of nutrient media-Nutrient broth
5. Preparation of nutrient agar plates
6. Preparation of nutrient agar slants
7. Enumeration of heterotrophic bacterial population-Serial dilution and pour plate technique
8. Demonstration of technique for pure culture of microorganisms-Spread plate method
9. Demonstration of technique for isolation of microorganisms-Streak plate method
10. Grams Staining method for differentiation of bacteria
11. Negative staining of bacteria
12. Fungal staining
13. Acid-fast staining of *Mycobacterim*
14. Spore staining-Schaeffer Fulton staining
15. Antibiotic sensitivity of pathogens
16. Bacterial Growth curve-observation and growth characteristics of bacteria
17. Study and experiments with different microscope
18. Effect of cleaning and disinfection on microbial load

Expected outcome.

Students will be able to prepare nutrient media, broth, agar plates etc. and do staining processes.

Text Book:

1. *Microbiology: A Laboratory Manual,10th edition. James Cappuccino, Natalie Sherman. Pearson Higher education*
2. *Practical Microbiology, R C Dubey, D K Maheshwary*