

FST 304 Food Microbiology II (3 Units)

Contamination of food from plants, soil, air, water, sewage, animal, handling and processing. Food spoilage – microorganism responsible: types of spoilage. Effects of heat, desiccation, chemicals, radiation on micro-organisms. Food hygienic design of food processing plants. Public health and sanitation. Microbial hazards in foods. Food poisoning (infection and intoxication) and its control. Other biological hazards in foods.

Practical: Introduction to the Food Microbiology laboratory including studies on the various equipments. Drawings would be done where applicable. Various media and all other materials used in the laboratory would be shown to the students. Studies on the preparation of media, media dispensation and aseptic methods would be done. Also techniques of isolation of microorganisms mainly bacteria and fungi would be carried out. Various staining techniques and Biochemical tests used in identifying microorganisms would be carried out. Microbiological studies of food substances would be carried out. Food substances include, water, fish, meat, egg, cereals, roots & tubers, flour (wheat, yam, etc.). Cases of spoilage would be established and the isolation and characterization of the organisms responsible would be carried out. Studies on food infection and poisoning would be carried out. Samples of water and cooked foods would be collected from hostels and cafeteria in the school and be subjected to microbiological analysis.