**BT 606 Food Biotechnology (3 0 0 6)**

**Pre-requisites: Nil**

Overview of food fermentation processes; food-grade and GRAS organisms; bioactive proteins and peptides; construction of food grade cloning vectors and expression systems; food borne pathogens: prevalence, pathogenesis and rapid detection; hurdle technology and food preservation; pre-and probiotics; food enzymes: Engineering and applications; microbial strain improvement; metabolic engineering in food fermentation; neutraceuticals production; biosensors for food and beverage industries; biodegradable plastics and food packaging; genetically modified food; food labeling; by-products of food processing as functional compounds; bioinformatics: impact on food and nutrition.

**References:**


1. Byong. H. Lee, *Fundamentals of Food Biotechnology*. VCH Publisher, 1996.

2. Editors Gustavo F. Gutierrez-Lopez, Gustavo V. Barbosa-Canovas, Emma V. Nathan*, Food Science and Biotechnology*, CRC Press 2002.

3. Journals: Food Biotechnology, Trends in Food Science & Technology, Advances in Biochemical Engineering & Biotechnology, Applied Microbiology & Biotechnology, Applied and Environmental Microbiology, Journal of Applied Microbiology.