

ADIKAVI NANNAYA UNIVERSITY
CBCS/SEMESTER SYSTEM
IV SEMESTER : B.Sc FOOD TECHNOLOGY
(w.e.from 2015-16 admitted batch)
FOOD SAFETY AND MICROBIAL STANDARDS – 2

Unit-I:

Microbial standards of processed and preserved foods. Microbiological criteria for various food products- Sea foods, Milk products, Spices, Fruits and vegetables. Food safety-Indicators of food microbial Quality and safety - *Coliforms*, *Enterococci* etc. Food laws & Standards.

Unit-II:

Non permitted food additives - Allura red AC, Aspartame, amaranth, Benzoic acid, brilliant black, Butylated Hydroxy - anisole, Calcium benzoate, Calcium sulphite
Non permitted food additives- Monosodium glutamate (MSG) Ponceau 4R, Conchineal Red A, Potassium benzoate, Potassium nitrate, Propyl p-hydroxybenzoate, propylparaben, and paraben
Non permitted food additives - Saccharin & its Na, K and Ca salts, Sodium metabisulphite, Sodium sulphite, Stannous chloride (tin), Sulphur dioxide, Sunset Yellow FCF, OrangeYellow S, tartrazine

Unit-III:

Sanitation: GMPs - Personal hygiene - Sanitizers - Sanitation principles – Sanitizing methods - Sanitation agents. Risk assessment and management during food preparation:

Unit-IV:

Food safety, Objectives (FSO), Microbiological criteria, definitions, sampling plans. HACCP – prerequisite programs, definitions, HACCP principles, Flow diagrams, Application of HACCP principles, Limitations of HACCP.

Unit-V:

Food laws & Standards - FAO, Codex Alimentations, ISO, Indian food laws and standards, Prevention of Food Adulteration (PFA) act, Fruit Products Order(FPO), Meat Product Order(MPO), Cold Storage Order (CSO), BIS, Agmark

Practicals:

- 1-2. Risk assessment and management determination.
- 3-4. Study of national and international microbial quality standards.
- 5-6. Visit to export oriented food processing industry.
7. Practical Examination.

Books for Reference:

1. M.P.Doyale, L.R.L Benchat, T.J.Montville, *Food Microbiology*, ASN Press, Washington USA.
2. Carlvan Derzant and Splittsoessev, *Methods for Microbial Examination of Foods*, APHA Publishers, Washington DC, USA.
3. Frazer, Math and Deibel, *Laboratory Manual for Food Microbiology*, Burgers Publishers –Minnesota, USA
4. J.M.Jay, *Modern Food Microbiology*, CBS Publishers and Distributors, New Delhi, 1987.
5. N.G.Marriott, *Principles of Food Sanitation*, AVI Pub.Co.USA, 1985.