

**Syllabus of B. Sc. (Biotechnology) Semester-V & Semester-VI Effective  
from Academic Year: 2013-2014  
VEER NARMAD SOUTH GUJARAT UNIVERSITY, SURAT**

**B. Sc. Semester-V/VI (Generic Elective Course)**

**FOOD TECHNOLOGY**

**UNIT 1: FOOD BIOTECHNOLOGY**

- 1.1 History of food biotechnology
- 1.2 Traditional fermentation technology
- 1.3 Enzyme technology
- 1.4 Modern biotechnology
- 1.5 Future prospects

**UNIT 2: FOOD PROCESSING**

- 2.1 Processing concepts
- 2.2 General processing concepts
- 2.3 Pasteurization process
- 2.4 Blanching process
- 2.5 flocculation and clearing

**UNIT 3: FOOD PRESERVATION**

- 3.1 General principles of food preservation.
- 3.2 Preservation by use of High temperature
- 3.3 Preservation by use of low temperature
- 3.4 Preservation by drying
- 3.5 Preservation by food additives
- 3.6 Preservation by radiation

**UNIT 4: FOOD SPOILAGE**

- 4.1 Spoilage of fresh and frozen vegetables
- 4.2 Spoilage of fruits
- 4.3 Spoilage of fresh and processed meats, poultry and seafood
- 4.4 Spoilage of miscellaneous foods

**REFERENCES:**

1. Campbell-Platt, G. (Ed.). (2011). *Food science and technology*. Wiley-Blackwell.
2. Frazier, W. C., & Westhoff, D. C. (1988). *Food Microbiology*. McGraw-Hill.
3. Jay, J. M. (1996). *Modern food microbiology*. Chapman & Hall.
4. Heldman, D. R., & Hartel, R. W. (1999). *Principles of food processing*. Aspen Pub.

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