

**B.A (Prog) with Nutrition and Health Education (NHE) as Non-Major
Category-III**

DISCIPLINE SPECIFIC CORE COURSE – DSC-6-NHE: BASICS OF FOOD SAFETY

CREDIT DISTRIBUTION, ELIGIBILITY AND PREREQUISITES OF THE COURSE

Course Title & Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical/ Practice		
Basics of Food Safety	4	3	1	0	Class XII	Nil

LEARNING OBJECTIVES:

1. To introduce students to the basic concepts of food safety, hygiene, and types of microorganisms associated with food.
2. To equip them with the knowledge of food adulteration and contamination, food borne diseases, and role of microbes in food spoilage.

LEARNING OUTCOMES:

After completion of the course students will be able to:

1. Understand the important genera of microorganisms associated with food and their characteristics.
2. Explain the role of microbes in food spoilage and food borne diseases.
3. Describe food safety and hygiene, types of hazards associated with food.
4. Understand current food safety and standard regulations.

SYLLABUS OF DSC-6

**THEORY
(Credits 3: 45 Hours)**

Unit 1: Introduction to Food Safety

(7 Hours)

- *Unit Description:* This unit will introduce the concept of food safety, hazards and factors affecting food safety.
- *Subtopics:*
 - Definitions
 - Importance of food safety
 - Factors affecting food safety
 - Types of hazards

- Safe-Unsafe food for consumption

Unit 2: Microorganisms in Food

(16 Hours)

- *Unit Description:* This unit will introduce the important genera of microorganisms associated with food, their characteristics and factors affecting it.
- *Subtopics:*
 - Bacteria, yeast, mold and virus
 - Role of microbes in food spoilage
 - Food infection and intoxication
 - Food poisoning

Unit 3: Food Safety and Quality Assurance

(12 Hours)

- *Unit Description:* This unit will introduce the food additives, adulteration and food regulations.
- *Subtopics:*
 - Food additives
 - Food adulteration
 - Nutritional labelling
 - Food safety and standard regulation
 - HACCP, GMP, GHP

Unit 4: Recent Concerns of Food Safety

(10 Hours)

- *Unit Description:* This unit will introduce the emerging concerns and new challenges to food safety.
- *Subtopics:*
 - Emerging concerns for food safety
 - Street food safety
 - New challenges to food safety

ESSENTIAL/RECOMMENDED READINGS:

1. Forsythe, S J. (1987) Microbiology of Safe Food. USA: Blackwell Science, Oxford.
2. Frazier, William C. and Westhoff, Dennis C. (2004). Food Microbiology. New Delhi: TMH.
3. Garbutt, John. (1997). Essentials of Food Microbiology. London: Arnold.
4. Jay, James M. (2000). Modern Food Microbiology. New Delhi: CBS Publication.
5. Mathur, P. (2018). Food Safety and Quality Control. Hyderabad: Orient Black Swan Pvt. Ltd.
6. Sethi, P., & Lakra, P. (2015). Aahaar Vigyaan, Poshan evam Suruksha, Elite Publishing House.
7. Suri, S., & Malhotra A. (2014). Food Science, Nutrition and Safety. Delhi: Pearson.

SUGGESTED READINGS:

1. De Vries. (1997). Food Safety and Toxicity. New York: CRC.
2. Lawley, R., Curtis L. & Davis, J. (2004). The Food Safety Hazard Guidebook. RSC Publishing.
3. Publishing.
4. Marriott, Norman G. (1985). Principles of Food Sanitation. New York: AVI.
5. Pelczar, M.J., Chan E.C.S & Krieg, Noel. R. (1993) Microbiology, 5th Ed. New Delhi: TMH.