

B.A (Prog) with Nutrition and Health Education (NHE)**Category-V****DISCIPLINE SPECIFIC CORE COURSE – DSE-9-NHE: SUSTAINABLE FOOD SYSTEM****CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE**

Course Title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Sustainable Food System	4	3	1	NIL	Class XII	NIL

LEARNING OBJECTIVES:

- To develop understanding regarding various sustainable food systems
- To familiarize students about nutrition and food security issues
- To determine how to adopt / practice sustainability in the food system

LEARNING OUTCOMES:

After completion of the course, the students will be able to:

- Describe concept and importance of sustainable food system
- Determine pillars of sustainable food system
- Comprehend nutrition and food security, its challenges and outcomes
- Analyze and interpret Sustainable Development Goals (SDG)

SYLLABUS OF DSE-NHE-9

THEORY
(Credits: Hours)

UNIT I: Sustainable Food System: Concept and Framework**(14 Hours)**

- *Unit Description:* This unit will focus on basics of sustainable food system, its pillars and

concept of nutrition and food security

- *Subtopics:*
 - Introduction to sustainable food system
 - Concepts and Importance of sustainable food system
 - Pillars of sustainable food system and its interrelationship
 - Concept of Nutrition and Food Security

UNIT II: Characteristics of Sustainable Food System (10 Hours)

- *Unit Description:* This unit will focus on challenges of sustainable food system and progress to achieve nutrition and food security.
- *Subtopics:*
 - Outline of food industry and impact of biodiversity
 - Challenges of sustainable food system
 - Ways to achieve nutrition and food security

UNIT III: Approaches for Sustainability in Food System (12 Hours)

- *Unit Description:* This unit will focus on benefits of sustainable food system and Government initiatives.
- *Subtopics:*
 - Approaches for sustainable food system
 - Optimize Agricultural Land Use
 - Improve efficiency through supply chain
 - Understand impact of climate change
 - Shift to more sustainable diets
 - Action initiation by government

UNIT IV: Nourishing the Future (9 Hours)

- *Unit Description:* This unit will focus on SDG 2 for food sustainability and ways to achieve it and promote nutrition and food security.
- *Subtopics:*
 - SDG 2 for food sustainability
 - Sustainable Food Production and Distribution
 - Future Goals and Ways to incorporate practices effectively
 - Promote Nutrition and Food Security

**TUTORIAL
(Credits 1: 15 Hours)**

Tutorial Classes will involve

1. Q & A Session / Group Discussion Exercise with the Students
2. Presentation of the Project / Research Activity by the Student
3. Any other Scholastic Work related to Application of Conceptual Understanding of the Subject

4. Evaluation and Feedback by the Teacher

ESSENTIAL/ RECOMMENDED READINGS:

- A Anjana; U.A. Shobha (2014); Textbook of Human Nutrition; Jaypee Brothers Medical Publishers (P) Ltd.
- M.S. Bamji, K.Kamla, Brahman G.N.V (2017) 4th Edition; Textbook of Human Nutrition; Oxford and IBM Publishing Co Pvt. Ltd.
- D Suryatapa (2020) 4th Edition; Textbook of Community Nutrition; Academic Publishers.
- Nutrition Action Plan on Food Security and Climate Change (2022) , Ministry of Health and Family Welfare.
- J. Shyma, G. Ashok, K. Kriti (2020); Achieving Nutritional Security in India: Vision 2030 NABARD Research Study-9; NABARD and ICRVER.

SUGGESTED READINGS:

- FAO. 2013. The State of Food and Agriculture 2013.
- Food losses and waste in the context of sustainable food systems. (2014)A report by the High-Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security. Rome.
- Ingram, J. 2011. A food systems approach to researching food security and its interactions with global environmental change. *Food Security*, 3(4): 417–431.
- V Braun, J., Afsana, K., Fresco, L.O. et al. Food system concepts and definitions for science and political action. *Nat Food* 2, 748–750 (2021). <https://doi.org/10.1038/s43016-021-00361-2>
- Thakur, Monica (2024). 1st Edition Sustainable Food System (Volume I): SFS, Framework, Sustainable Diets, Traditional Food Culture & Food Production (World Sustainability Series). Springer International Publishing AG. ISBN: 978-3031471216.
- M. Van Dijk, G.W. Meijerink (2014) A review of Food & Security scenario and assessment studies: Results, gaps and research priorities. *Global Food Security* (Accessed on 15.12.24) Elsevier.
- A Nandini, K Apoorve & W Aradhana (2023) A Report: How to Design Scalable and Sustainable Programmes ; Sustainable Food System, New Delhi : Council on Energy, Environment and Water.
- Supporting Zero Hunger SDG 2 – 5 Steps Approach (2023): [Tracextech.com/zero hunger-sdg2](https://Tracextech.com/zero-hunger-sdg2)
- Sporchia, F Antonelli, M; Aguliar-Martinez et al (2024) zero hunger; Future Challenges and the way forward towards the achievement of Sustainable Development Goal 2; *Sustain Earth Review* 7; (Accessed on 15.12.24) <https://rdcu.be/d3Dq7>