

Bachelors in Arts with With Community Science
Category-V

**DISCIPLINE SPECIFIC ELECTIVE COURSE – DSE-FN 9-HSC:
PUBLIC NUTRITION**

CREDIT DISTRIBUTION, ELIGIBILITY, PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical		
Public Nutrition	4	3	0	1	-	-

Learning Objectives

- To explain the concept and scope of public nutrition and health care systems.
- To develop skills for using various methods and techniques for assessing nutritional status.
- To familiarize with the public nutrition concerns and programmes to tackle them.
- To explain the role of nutrition communication for health promotion and behavior change.

Learning Outcomes

The students would be able to:

- Understand the concept and scope of public nutrition and the health care systems.
- Comprehend and use various methods and techniques for assessment of nutritional status at individual and community level.
- Gain knowledge about the important public nutrition concerns, preventive strategies and programmes to combat them.
- Become familiar with the importance of nutrition communication for health promotion and bringing about behavior change.

THEORY
(Credits 3: Hours 45)

UNIT I: Concept and Scope of Public Nutrition and Health Care Systems 8 Hours

The unit introduces public nutrition, health concepts, and India's healthcare system.

- Concept, scope, and multidisciplinary nature of public nutrition
- Role of public nutritionist in national development
- Health - Definition, dimensions, determinants, indicators
- Levels of health care and health care delivery system in India

UNIT II: Nutritional concerns, their implications and related nutrition programmes 18 Hours

This unit describes etiology, clinical features, public health implications, preventive strategies, and national programmes for -

- Protein energy malnutrition, moderate and severe acute malnutrition
- Micronutrient deficiencies - nutritional anaemias, vitamin A deficiency, iodine

- deficiency disorders, vitamin D deficiency, zinc deficiency
- Fluorosis
- Obesity, non-communicable diseases (cardiovascular diseases, diabetes)

UNIT III: Assessment of Nutritional Status

12 Hours

The unit covers the importance and methods of assessing nutritional status in individuals and populations.

- Objectives and importance of assessment of nutritional status of individual and population groups
- Methods of assessment: Clinical signs, Nutritional anthropometry, Biochemical and Biophysical tests, Diet surveys, Vital statistics, Ecological factors

UNIT IV: Nutrition communication for health promotion

07 Hours

The unit focuses on nutrition communication and behavior change strategies for health promotion.

- Objectives, principles and scope of nutrition and health education and promotion
- Behavior Change Communication: concept and process

PRACTICAL (Credits 1: Hours 30)

1. Planning of low-cost nutritious recipes for:
 - Infants
 - Preschoolers
 - Adolescent girls
 - Pregnant women
 - Nursing mothers
2. Assessment of nutritional status:
 - Anthropometry – weight, height/length and MUAC measurements
 - Plotting and interpretation of growth charts for children below 5 years
 - Identification of clinical signs of common nutritional disorders
 - Dietary assessment – FFQ, 24-hour diet recall and diet diversity
3. Preparation of communication aids for nutrition promotion among vulnerable population groups.

Essential Readings

UNIT I

This unit explores the multidisciplinary scope of public nutrition, its impact on national development, and India's healthcare framework, focusing on health dimensions, determinants, and tiered delivery system structures.

- **Bamji, M.S., Krishnaswamy, K. and Brahmam, G.N.V. (Eds)** (2025). Textbook of Human Nutrition, 5th edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
- **Park, K.** (2023). Park's Textbook of Preventive and Social Medicine (27th ed.), Jabalpur, India: Banarasidas Bhanot Publishers.
- **Wadhwa A. and Sharma S.** (2003). Nutrition in the Community- A Textbook. Elite Publishing Pvt Ltd, New Delhi.

UNIT II

This unit examines the etiology and clinical features of malnutrition, micronutrient deficiencies, and lifestyle diseases, alongside preventive strategies and national programmes designed to combat India's dual burden of malnutrition.

- **Bamji, M.S., Krishnaswamy, K. and Brahmam, G.N.V. (Eds)** (2025). Textbook of Human Nutrition, 5th edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
- **Park, K.** (2023). Park's Textbook of Preventive and Social Medicine (27th ed.), Jabalpur, India: Banarasidas Bhanot Publishers.
- **Vir, S.C.** (2023). Child, Adolescent and Woman Nutrition in India: Public Policies, programmes and Progress. KW Publishers Pvt. Ltd.
- **Wadhwa A. and Sharma S.** (2003). Nutrition in the Community- A Textbook. Elite Publishing Pvt Ltd, New Delhi.

UNIT III

This unit examines the objectives and significance of evaluating nutritional health, detailing diverse methodologies including anthropometry, clinical examination, biochemical testing, dietary surveys, and the analysis of ecological and vital statistics.

- **Bamji, M.S., Krishnaswamy, K. and Brahmam, G.N.V. (Eds)** (2025). Textbook of Human Nutrition, 5th edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
- **Gibson, R. S.** (2005). Principles of nutritional assessment (2nd ed.). Oxford University Press.
- **Wadhwa A. and Sharma S.** (2003). Nutrition in the Community- A Textbook. Elite Publishing Pvt Ltd, New Delhi.

UNIT IV

This unit explores the objectives and principles of nutrition education, focusing on Behavior Change Communication (BCC) strategies to promote healthy lifestyles and effectively influence dietary habits across diverse populations.

- **Park, K.** (2023). Park's Textbook of Preventive and Social Medicine (27th ed.), Jabalpur, India: Banarasidas Bhanot Publishers.
- **Vir, S.C.** (2023). Child, Adolescent and Woman Nutrition in India: Public Policies, programmes and Progress. KW Publishers Pvt. Ltd.
- **Wadhwa A. and Sharma S.** (2003). Nutrition in the Community- A Textbook. Elite Publishing Pvt Ltd, New Delhi.

Suggested Readings

- **Chadha, R. and Mathur, P. (eds.)** (2015). Nutrition A Lifecycle Approach. New Delhi, India: Orient Blackswan Pvt. Ltd.
- **Jelliffe, D. B., and Jelliffe, E. F. P.** (1989). Community nutritional assessment. Oxford University Press.
- **NIN. Dietary Guidelines for Indians** (2024). ICMR-National Institute of Nutrition, Hyderabad.
- **Gibney, M.J., Margetts, B.M., Kearney, J.M. Arab, I., (Eds)** (2004) Public Health Nutrition, NS Blackwell Publishing.
- **ICMR-NIN Expert Group on Nutrient Requirement for Indians, Recommended Dietary Allowances (RDA) and Estimated Average Requirements (EAR) - 2020.** ICMR-National Institute of Nutrition, Hyderabad.
- **Khanna, K, Gupta, S, Seth, R, Mahna, R, Rekhi, T** (2018) The Art and science of Cooking. Fifth Edition. Elite Publishing House Pvt. Ltd.

- Longvah, T., Ananthan, R., Bhaskarachary, K. and Venkaiah, K. (2017). Indian Food Composition Tables. National Institute of Nutrition, ICMR, Hyderabad.
- Raina, U., Kashyap, S., Narula, V., Thomas, S., Suvira, Vir, S., Chopra, S. (2010) Basic food preparation. (4th ed.) Lady Irwin College.
- Vir, S.C. (2021). Public Health Nutrition in Developing Countries. Volume-I, 2nd edition. Woodhead Publishing India Pvt Ltd.
- Vir, S.C. (2021). Public Health Nutrition in Developing Countries. Volume-II, 2nd edition. Woodhead Publishing India Pvt Ltd.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time

Bachelors in Arts with With Community Science
Category-V

**DISCIPLINE SPECIFIC ELECTIVE COURSE – DSE-FN 11-HSC:
PHYSIOLOGY AND PROMOTIVE HEALTH**

CREDIT DISTRIBUTION, ELIGIBILITY, PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit distribution of the course			Eligibility Criteria	Prerequisite of the course
		Lecture	Tutorial	Practical		
Physiology and Promotive Health	4	3	1	0	-	-

Learning Objectives

- To learn about the structural organization of the human body.
- To understand the normal functioning of the organ systems and their interactions.
- To learn about modes of transmission of common communicable diseases and their prevention.
- To learn on the web of causation of non-communicable diseases and lifestyle disorders.

Learning Outcomes

The students would be able to:

- Understand the knowledge about the structural organization of the human body.
- Develop insight into normal functioning of all the organ systems of the body and their interactions.
- Understand the modes of transmission of common communicable diseases and their prevention.
- Understand the causes of non-communicable diseases and lifestyle disorders.

THEORY
(Credits 3: Hours 45)