

DISCIPLINE SPECIFIC CORE COURSE
DSC HH 514: Dietetics and Public Health Nutrition I

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		
Dietetics and Public Health Nutrition I	4	3	0	1	XII Pass	Appeared in Nutrition: A Life Cycle Approach

Learning Objectives

- To explain the importance and scope of public health nutrition and its role in the health care system.
- To develop skills for using various methods and techniques for assessing nutritional status.
- To familiarize with the National public health nutrition concerns
- To develop an understanding about the principles of dietetics and nutrition care.
- To apprise the various aspects related to management of some common disorders / diseases.
- To inculcate the skill of dietary intervention according to patients' nutritional assessment and diagnosis.

Learning Outcomes

- Understand the concept of public health nutrition and its role in the health care system.
- Comprehend and use various methods and techniques for assessment of nutritional status assessment at individual and community level.
- Gain knowledge of the current National nutritional concerns.
- Understand the principles of the nutrition care process in hospital settings in the management of diseased person.
- Ability to modify normal diets as per the therapeutic condition.

SYLLABUS OF DSC HH 514

THEORY

(Credits 3; Hours 45)

UNIT I: Public Health Nutrition and Health Care Systems

8 Hours

- Definition and multidisciplinary nature of public health nutrition
- Concept, scope and current concerns in public health nutrition
- Health – Concept, definition, dimensions, determinants and indicators
- Health care systems:

- Levels of Health Care
 - Health Care System, Health care delivery system in India
 - Role of Public Health sector and other sectors and agencies
 - Primary Health care in India
 - Role of important schemes and institutions
- Role of public health nutritionist in health nutrition

UNIT II: Assessment of Nutritional Status

8 Hours

- Objectives and importance of assessment of nutritional status of individual and population groups
- Methods of Assessment of Nutritional status of Individual and Population groups
 - Anthropometry and related measures
 - Biochemical Assessment
 - Clinical Examination
 - Dietary Assessment
 - Vital Statistics, Ecological factors and Qualitative Assessment Methods- An overview

UNIT III: National Public Health Nutrition Concerns

8 Hours

- Prevalence, etiology, clinical features, prevention and management at community level of the following:
 - Protein Energy Malnutrition, Moderate Acute Malnutrition , Severe Acute Malnutrition
 - Micronutrient deficiencies such as Vitamin A deficiency, Nutritional anemia, Iodine deficiency disorders, Vitamin D deficiency and Zinc deficiency
 - Fluorosis
 - Obesity, Metabolic Syndrome and Non communicable disease- An overview

UNIT IV: Principles of Nutrition Care

4 Hours

- Nutrition Care Process
- Therapeutic adaptations of a Normal Diet, Progressive diets

UNIT V: Etiology, patho-physiology, metabolic changes, clinical features and nutritional

management of

17 hours

- Infection and Fevers- Typhoid, Tuberculosis, HIV-AIDS, Malaria/Dengue/Chikungunia
- G I Tract disorders- Diarrhea, Constipation, Lactose Intolerance, Celiac disease\
- Weight management- Underweight, overweight and obesity
- Eating Disorders

PRACTICAL (Credits 1; Hours 30)

1. Assessment of nutritional status:

- Anthropometry (height, weight , Middle upper arm circumference , Waist circumference)
 - Dietary Assessment - Food frequency questionnaire ,24 hour dietary recall
 - Review of nutritional status of population from National /Regional/ Nutrition Surveys (NFHS, CNNS, etc)
2. Planning and preparation of low cost nutritious diet/ recipes for population groups vulnerable to nutritional deficiency diseases (PEM, Nutritional Anemia, Vitamin A deficiency)
 3. Therapeutic modifications of diets:
 - Normal, soft, clear- and full- fluid
 4. Planning and preparation of diets/dishes for individuals suffering from:
 - Febrile disorders- Typhoid, Tuberculosis
 - GI Tract disorders- Diarrhoea and Constipation
 - Weight management- Underweight, overweight/ obesity

Essential Readings:

- Siddhu A, Bhatia N, Singh K, Gupta S (2017). Compilation of food exchange list, Technical Series 6, Lady Irwin College, University of Delhi. Publ. Global Books Organisation, Delhi
- Vir, S. (2023). Child, adolescent and women nutrition in India: Public Policies, programme and progress. KW Publishers, Daryaganj, New Delhi, India.
- Seth V, Singh K and Mathur P (2018). Diet Planning through the Life Cycle: Part 1 Normal Nutrition. A Practical Manual. 6 th Edn. Elite Publishing House Pvt. Ltd. New Delhi.
- Seth, V. and Singh K. (eds.) (2021) Principles of Medical Nutrition Therapy for Positive Clinical Outcomes, 1st Edition. Elite Publishing House Pvt. Ltd.
- Bamji MS, Krishnaswamy K and Brahmam GNV (Eds) (2016). Textbook of Human Nutrition, 4th edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi
- Indian Dietetics Association, (2018) Clinical Dietetics Manual, 2nd Edition. Elite Publishing House Pvt. Ltd.
- Gibney, M. J., Margetts, B. M., Kearney, J. M. & Arab, L. (Eds.). (2005). Public Health Nutrition. Oxford, UK: Blackwell Science.
- Longvah T, Ananthan R, Bhaskarachary K and Venkaiah K (2017). Indian Food Composition Tables. National Institute of Nutrition, ICMR, Hyderabad.
- ICMR (2020) Estimated Average Requirements and Recommended Dietary Allowances for Indians .Published by National Institute of Nutrition, Hyderabad.

Suggested Readings:

- Chadha R and Mathur P eds.(2015) Nutrition : A Lifecycle Approach. Orient Blackswan, New Delhi.
- Wadhwa A. and Sharma S (2003). Nutrition in the Community-A Textbook. Elite Publishing House Pvt. Ltd. New Delhi
- ICMR (2011) Dietary Guidelines for Indians. Published by National Institute of Nutrition, Hyderabad.

- Khanna K, Gupta S, Seth R, Passi SJ, Seth R, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. 2nd Edn. Phoenix Publishing House Pvt. Ltd.
- Mahan, L.K. & Escott Stump, S. (2020). Krause's Food & Nutrition Therapy, 15th ed. Saunders Elsevier
- Jelliffe DB & Jelliffe E F P (1989). Community nutritional assessment with special reference to less technically developed countries. Oxford Medical Publications. Oxford University Press, Oxford, UK.
- Joshi, S.A. (2015). Nutrition and Dietetics, 4th ed. Mc Graw Hill education.
- WHO information on Dengue/ Chikungunia/ Malaria
Dengue- <https://www.who.int/news-room/fact-sheets/detail/dengue-and-severe-dengue>. Assessed on March 2023
Chikungunia-<https://www.who.int/news-room/fact-sheets/detail/chikungunya> .Assessed on March 2023
Malaria- <https://www.who.int/news-room/fact-sheets/detail/malaria> .Assessed on March 2023
- WHO <https://www.who.int/tools/child-growth-standards/standards> Assessed on March 2023
- WHO (2009) <https://www.who.int/publications/i/item/9789241547635>. Assessed on March 2023
- http://www.ilsindia.org/Workshop_National_Food_Consumption_Anthropometry_Physical_Activity_Survey/Methodology.pdf. Assessed on March 2023
- https://nhm.gov.in/images/pdf/programmes/wifs/operational-framework-wifs/operational_framework_wifs.pdf. Assessed on March 2023
- WHO <https://www.who.int/tools/child-growth-standards/standards>. Assessed on March 2023
- WHO (2009) <https://www.who.int/publications/i/item/9789241547635>. Assessed on March 2023
- https://www.nin.res.in/tenders/DABS/2.Anthro_BP_Dec_1_2022.pdf. Assessed on March 2023
- https://nhm.gov.in/images/pdf/programmes/wifs/operational-framework-wifs/operational_framework_wifs.pdf. Assessed on March 2023
- National Nutrition Monitoring Bureau (India) | GHDx (healthdata.org). Assessed on March 2023
- NFHS Project | International Institute for Population Sciences (IIPS) (iipsindia.ac.in). Assessed on March 2023

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