DISCIPLINE SPECIFIC CORE COURSE – 8
DSC HH 308: Nutrition: A Life Cycle Approach

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		
Nutrition: A Life Cycle Approach	**4**	**3**	**0**	**1**	**XII Pass**	**Pass in DSC HH 102** Food Science and Nutrition

Learning Objectives

1. To acquire knowledge about the nutritional needs and concerns of an individual throughout the life cycle.
2. To enable students in understanding the principles of planning nutritionally adequate diets.
3. To make them exercise food choices consonant with good health based on sound knowledge of principles of nutrition.

Learning Outcomes

After completing this course, students will be able to:

1. Acquire knowledge about the nutritional needs and concerns of an individual throughout the life cycle.
2. Comprehend the principles of planning nutritionally adequate diets.
3. Exercise food choices consonant with good health based on sound knowledge of principles of nutrition.

SYLLABUS OF DSC 8

THEORY
(Credits 3; Hours 45)

UNIT I: Basics of nutrient requirements and meal planning **12 Hours**

Unit Description: Concepts of food groups and food exchange lists for meal planning, factors affecting meal planning will be dealt with. Students will also be introduced to dietary guidelines for Indians. The concept of estimated average requirements, recommended allowances and methods of assessing nutrient requirements in general for Indians will be explained.

Subtopics:

- Food groups
- Food exchange list
- Factors affecting meal planning and food related behaviour, diet diversity
- Dietary guidelines for Indians
- Concept of EAR, RDA, AI and TUL
- Basic concepts of assessment of nutrient requirements

UNIT II: Nutrition during adulthood and old age

12 Hours

- Unit Description: Physiological influence on nutrient requirements during adulthood and old age (EAR/RDA), energy balance, nutritional concerns and changes in requirements during adulthood and old age, concept of healthy food choices, processed and ultra-processed food consumption and factors contributing to longevity will be dealt with.

Subtopics:

- Adult men and women
- Elderly

UNIT III: Nutrition during pregnancy and lactation

9 Hours

Unit Description: Physiological changes in pregnancy and lactation, EAR/RDA during pregnancy and lactation, nutritional guidelines, effect of nutritional status on pregnancy outcome, optimal weight gain and its components during pregnancy, nutrition related problems in pregnancy, importance of nutrition for successful lactation will be dealt with.

Subtopics:

- Pregnant women
- Lactating mothers

UNIT IV: Nutrition during childhood

12 Hours

- Unit Description: Physiological changes during infancy, childhood and adolescence – growth and development; nutrient requirements (EAR/RDA) during these age groups, guidelines on infant and young child feeding, nutrition concerns keeping in mind the changing food habits and importance of physical activity will be dealt with.

Subtopics:

- Infants
- Preschool children
- School children
- Adolescents

PRACTICAL
(Credits 1; Hours 30)

I Introduction to meal planning:

- Rich sources of nutrients
- Use of food exchange lists

II Planning nutritious diets for:

- Adult (Male and Female)

- Pregnant and Lactating woman
- Pre-schooler
- Adolescent girl
- Elderly

III Planning and cooking of nutrient rich snacks/dishes for:

- Infants (Freshly prepared complementary foods)
- Packed tiffin adults, adolescent and school going children (any one)
- Pregnancy/Lactation

Essential readings

1. Chadha R and Mathur P eds. (2015). Nutrition: A Lifecycle Approach. Orient Blackswan, New Delhi
2. ICMR-NIN Expert Group on Nutrient Requirements for Indians, Recommended Dietary Allowances (RDA) and Estimated Average Requirements (EAR)-2020
3. Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Delhi: Elite Publishing House Pvt. Ltd.
4. NIN (2011). Dietary Guidelines for Indians-A manual. Second Edition. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.

Suggested readings

1. Byrd-Bredbenner C, Berning J, Kelly D, Abbot JM (2021). Wardlaw‟s Perspectives in Nutrition, McGraw- Hill International Edition, 12th edition
2. B Srilakshmi Eighth Edition (2019). Nutrition Science. New Age International Publishers.
3. Longvah T, Ananthan R, Bhaskarachary K and Venkaiah K (2017). Indian Food Composition Tables. National Institute of Nutrition, Indian Council of Medical Research, Department of Health Research, Ministry of Health and Family Welfare, Government of India, Hyderabad.
4. Sethi P, Lakra P (2015). Aahar Vigyan Suraksha evam Poshan.Delhi: Elite Publishing House Pvt.Ltd
5. Puri S, Bhagat A, Aeri, BT, Sharma A (2019). Food Exchange List: A Tool for meal Planning. Elite Publishing House. New Delhi.
6. 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.

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