

# UNDERGRADUATE PROGRAMME IN HOME SCIENCE

## ALLIED COURSE PAPER-I: HUMAN NUTRITION

### THEORY

Paper No.	: 1
Maximum Marks	: 100 (75 university exam and 25 internal assessment)
Credits	: 4
Teaching Periods	: 4 Theory + 1 Period for students presentation / week
Teaching Load	: 56 Periods + 14 Periods for students presentation / semester

### Objectives

This course will enable the student to:

4. Understand the relationship between food, nutrition & health.
5. Understand the function of various nutrients, their sources, effects of deficiency and excess consumption on human health
6. Understanding the basic concepts of food exchange list and meal planning.

Content	Periods
<b>Unit I: Basic Concepts in Nutrition</b>	<b>4</b>
<ul style="list-style-type: none"><li>• Basic terms used in nutrition</li><li>• Understanding relationship between food, nutrition and health</li><li>• Functions of food-Physiological, psychological and social</li></ul>	
<b>Unit II: Nutrients</b>	<b>23</b>
<ul style="list-style-type: none"><li>• Energy- Functions, sources and concept of energy balance</li></ul>	
Functions, Recommended Dietary Allowances, dietary sources, effects of deficiency and/ or excess consumption on health of the following nutrients:	
<ul style="list-style-type: none"><li>• Carbohydrates and dietary fibre,</li><li>• Lipids</li><li>• Proteins</li><li>• Fat soluble vitamins-A, D,E and K</li><li>• Water soluble vitamins – Thiamin, Riboflavin, Niacin, Pyridoxine, Folate, Vitamin B<sub>12</sub> and Vitamin C</li><li>• Minerals – Calcium, Iron, Zinc, Iodine and Flourine</li></ul>	
<b>Unit III: Nutrient Requirements And Meal Planning</b>	<b>6</b>
<ul style="list-style-type: none"><li>• Basic Food Groups</li><li>• Concept of minimum nutrient requirements and RDA</li></ul>	

- Factors affecting meal planning

#### Unit IV: Nutrition During Lifecycle

23

Nutrition during life cycle- Physiological considerations, nutrient needs, dietary and socio cultural aspects for the following:

- Adult man / woman of different income and activity levels
- Preschool children
- Adolescent children
- Pregnant woman
- Nursing woman

#### Recommended Readings

- Wardlaw and Insel MG, Insel PM (2004). Perspectives in Nutrition. Sixth Edition, McGraw Hill.
- Srilakshmi B (2012). *Nutrition Science*. 4<sup>th</sup> Revised Edition, New Age International Publishers.
- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (in press). Textbook of Nutrition and Dietetics. Phoenix Publishing House Pvt. Ltd.
- ICMR(2010) Recommended Dietary Allowances for Indians. Published by National Institute of Nutrition, Hyderabad.

### HUMAN NUTRITION

#### PRACTICAL

Paper No.	:	
Maximum Marks	:	50
Credits	:	2
Teaching Periods	:	4 / week
Teaching Load	:	14 Practical/ semester

#### Objectives

This course will enable the students to:

4. To understand the basic principles of meal planning and the use of food exchange list.
5. To understand how to plan healthy meals for various stages during life cycle.

#### Content

#### Periods

#### 1. Identifying Rich Sources Of Nutrients

2

- Energy
- Protein
- Iron
- Calcium
- Fiber

- Vitamin A
- Ascorbic acid

## **2.Introduction To Meal Planning**

**12**

- Basic food groups
- Use of food exchange list for planning nutritious diets /Snacks for
  - Adult man / woman of different activity levels
  - Pre school children
  - Adolescent children
  - Pregnant woman
  - Nursing woman

### **Recommended Readings**

- Seth V and Singh K (2006). *Diet Planning through the Life Cycle: Part 1 Normal Nutrition. A Practical Manual*. Elite Publishing House Pvt. Ltd. New Delhi.
- Gopalan C, Rama Sastri BV, Balasubramanian SC (1989) *Nutritive Value of Indian Foods*. National Institute of Nutrition, ICMR, Hyderabad.