

DISCIPLINE SPECIFIC CORE

HSC-RC-1016: FUNDAMENTALS OF NUTRITION AND FOOD SCIENCE (CREDITS: THEORY-4, PRACTICAL-2) THEORY LECTURES 60

- ✓ **Unit 1 Basic concepts in food and nutrition** 5
- Basic terms used in study of food and nutrition ✓
 - Understanding relationship between food, nutrition and health
 - Functions of food-Physiological, psychological and social ✓
- ✓ **Unit 2 Nutrients** 20
- Functions, dietary sources and clinical manifestations of deficiency/ excess of the following nutrients:
- Carbohydrates, lipids and proteins
 - Fat soluble vitamins-A, D, E and K
 - Water soluble vitamins – thiamin, riboflavin, niacin, pyridoxine, folate, vitamin B12 and vitamin C
 - Minerals – calcium, iron and iodine ✓
- Unit 3 Food Groups** 25
- Selection, nutritional contribution and changes during cooking of the following food groups:
- Cereals
 - Pulses
 - Fruits and vegetables
 - Milk & milk products
 - Eggs
 - Meat, poultry and fish
 - Fats and Oils
- ✓ **Unit 4 Methods of Cooking and Preventing Nutrient Losses** 10
- Dry, moist, frying and microwave cooking
 - Advantages, disadvantages and the effect of various methods of cooking on nutrients
 - Minimising nutrient losses

PRACTICAL PRACTICAL

1. Weights and measures of common food stuff (by household and standard methods); preparing market order and table setting

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2. Food preparation, understanding the principals involved, nutritional quality and portion size.

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- **Beverages:** Hot tea/coffee, Milk shake/lassi, fruit based beverages
- **Cereals:** Boiled rice, pulao, chapatti, parantha, puri, pastas
- **Pulses:** Whole, dehusked

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- ✓ • **Vegetables:** curries, dry preparations
- ✓ • **Milk and milk products:** Kheer, custard
- **Egg preparations:** Boiled, poached, fried, scrambled, omelettes, egg pudding

RECOMMENDED READINGS

- ✓ • Khanna K, Gupta S, Seth R, Mahna R, Rekhi T (2004). *The Art and Science of Cooking: A Practical Manual*, Revised Edition. Elite Publishing House Pvt Ltd.
- Raina U, Kashyap S, Narula V, Thomas S, Suvira, Vir S, Chopra S (2010). *Basic Food Preparation: A Complete Manual*, Fourth Edition. Orient Black Swan Ltd.
- ✓ • Bamji MS, Krishnaswamy K, Brahmam GNV (2009). *Textbook of Human Nutrition*, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
- ✓ • Srilakshmi (2007). *Food Science*, 4th Edition. New Age International Ltd.
- Wardlaw and Insel MG, Insel PM (2004). *Perspectives in Nutrition*, Sixth Edition. Mosby.
- Chadha R and Mathur P (eds). *Nutrition: A Lifecycle Approach*. Orient Blackswan, Delhi.