

## **Semester II**

### **ANCC2: FUNDAMENTALS OF NUTRITION AND FOOD SCIENCE (CREDITS: THEORY-4, PRACTICAL-2)**

#### **Contents:**

#### **Unit: I Basic Concepts in Food and Nutrition**

- Definition of food, nutrition and nutrients.
- Basic concept of RDA, food groups, food pyramid and food exchange list.
- Classification of nutrients.
- Functions of food-Physiological, psychological and social.

#### **Unit: II Macro Nutrients**

- **Functions, dietary sources and clinical manifestations of deficiency/ excess of the following macro nutrients**

- Carbohydrates.
- Proteins.
- Lipids.

#### **Unit: III Micro Nutrients**

- **Functions, dietary sources and clinical manifestations of deficiency/ excess of the following micro nutrients**

- Fat soluble vitamins.
- Water soluble Vitamins.
- Minerals.

#### **Unit IV Food Groups**

- **Selection, nutritional contribution ,changes during spoilage and cooking of the following food groups:**

- Cereals and pulses
- Fruits and vegetables
- Milk, milk products, eggs, meat, poultry and fish
- Fats and Oils.

## **ANCCP2: FUNDAMENTALS OF NUTRITION AND FOOD SCIENCE**

### **PRACTICAL**

1. Weights and measures.
2. Identification of food groups.
3. Categorization of foods as rich, moderate and poor sources of energy and other nutrients.
4. Planning of dishes rich in the following nutrients:
  - Energy
  - Protein
  - Fats,
  - Fiber
  - Vitamins and Minerals.
5. Use of lactometer for detection of adulteration of milk.

## RECOMMENDED READINGS

1. M.S. Swaminathan , (latest edition).Fundamentals of Food and Nutrition. Bappcco publication .
2. Dr Sri lakshmi (latest edition), Nutrition science. New Age international publication
3. Indian Council of Medical Research. Nutritive Value of Indian Foods – Latest Publication. NIN Hyderabad.
4. Whitney,E. & Rady, R.S. (latest edition).Understanding nutrition. Canda: Wadsworth, Cengage learning.
5. Mahan,L.K. and Escoh-Sump,S.( latest edition). Krause’s Food Nutrition & Diet Therapy. Philadephia sunders an imprint of Elsevier.