

**Jyoti Nivas Degree College Autonomous Bangalore – 95**  
**Short term course on Nutrition and Dietetics**

**Objectives:**

**50 hours**

Food and nutrition are important for human beings during health and disease. Nutrition and dietetics are basic to our developmental programme. A knowledge of good nutrition and diet is essential for teachers, health professionals, students and others. Dietetics explains the dietetic care needed during the different periods and stages of life and the specific diet principles for several disease conditions. Knowledge of physiology, biochemistry, clinical medicine is related to nutrition and food.

Knowledge of nutrition and dietetics will be a valuable guide for physicians, teachers, students, nurses, health professionals and health workers.

**Student learning outcome:**

On completion of this course, students will be able to

- Understand the importance of balanced diet
- Understand the functions, sources and deficiency of macro and micronutrients, water and electrolytes.
- Analyze and correlate nutrition-related illness and chronic disease
- Plan a meal based on nutritional requirements and availability
- Depict the concepts and importance of nutritional care and therapeutic diet

**Syllabus**

**Unit 1**

**Introduction to basic nutrition and food groups**

**4 Hours**

Introduction to basic nutrition, food as a source of nutrient, functions of food. Definition of health, nutrition, nutrients, balanced diet and malnutrition. Interrelationships between nutrition and health. Food groups: Food pyramid, Basic five food groups.

**Unit 2**

**Meal planning**

**5 Hours**

Definition and objectives of meal planning, factors to be considered during meal planning: Family size and meal patterns, save time and money in food preparation, use variety of meals, provide satiety value. Nutritional needs of young children, adolescents, adults and old age. Nutrition in pregnancy and lactation.

**Unit 3**

**Nutrients**

**5 Hours**

Sources, requirements, functions and deficiency diseases of: Carbohydrates, proteins and lipids. Vitamins: Fat soluble vitamins (Vitamin A, D, E and K) and water soluble vitamins (vitamin B complex, vitamin C), Minerals (Calcium, Phosphorous, Iron, Iodine, Magnesium, Sodium, Potassium), Fiber, Water.

#### **Unit 4**

#### **Advanced Dietetics: Nutrition Counseling and Therapeutic Diet 7 Hours**

Nutrition counseling: Introduction to nutrition counseling, Role of nutrition counselor, counseling and educating patient, Routine hospital diets: Preoperative and postoperative diets, Basic concepts and methods of (a) Oral feeding (b) Tube feeding (c) Parental nutrition (d) Intravenous feeding.

Basic concepts of diet therapy. Role of dietitians in the hospital and the community. Purpose and principles of therapeutic diets, modification of normal diet, classification of therapeutic diets. Therapeutic diet: Febrile conditions, Gastro-intestinal disorders, Renal, liver, and cardiovascular diseases, cancer, diabetes mellitus, obesity and hypertension.

#### **Unit 5**

#### **Community nutrition: 4 Hours**

Nutrition & health in National Development. Nutrition problems: Protein Energy Malnutrition (PEM), Anaemia, Vitamin A deficiency. Nutritional assessment status: Sampling techniques, Direct assessment, Diet surveys, anthropometry, Biochemical analysis. Breast feeding practices. National and International agencies in Community Nutrition.

#### **Practical: 5 units 15 Hours**

- Weight and Measures – 1
- Normal diet – 1
- Therapeutic diet – 2
- Meal planning for various aspects – 1

#### **Projects and assignments/ Internship 10 Hours**