SS842 PRINCIPLES OF FOOD AND NUTRITION 3:0:0:3

**Subject Description:** The above course is offered to collect in depth knowledge about physical and chemical properties of foods, food groups, nutrients and RDA throughout lifecycle, nutritional assessments, and the related diseases.

**Pedagogy:**
The topics will be covered by lecture sessions. Assessments will be done via assignments and quiz to understand the progress. Students are required to work on a research paper that involves recent review on allied areas.

**Objectives:** To enable students
1. Understand the vital link between nutrition and health
2. Gain knowledge on functions, metabolism and effects of deficiency of nutrients

**UNIT-I INTRODUCTION TO FOOD AND NUTRIENTS:**
Foods & Food Groups, Novel foods and processed foods, Food Pyramid, Recommended Dietary Allowance- RDA for Foods, Significance of Nutrients in Foods- Carbohydrates, Proteins, Fats, Vitamin and minerals, antioxidants, fiber, water etc. Nutritional requirement (RDA) and food security, Meal planning, Balanced diet, Energy value and Basal Metabolic Rate.

**UNIT -II NUTRITION THROUGHOUT LIFECYCLE:**
Nutritional needs and recommendation in pregnancy, lactation, infancy, preschool, school going, adolescents, adults and old age.

**UNIT –III NUTRITION IN DISEASES**
Dietary modification, types of diets, diet during deficiency, Diet during diseases- Anemia, kidney disease, liver disease, fever, ulcers, cancers, food allergies, cardiac diseases, gastrointestinal problems, Diabetes, alcoholism, nutrition during emergency. Diet during weight management- Underweight and Obesity. Sports nutrition, food based home remedies for common ailments. Special nutritional need: Sports nutrition, Autism, ADHD. Extreme climatic conditions, High altitude and space nutrition; Nutrition during natural calamities etc.

**UNIT -IV NUTRITIONAL ASSESSMENT AND EDUCATION**

**UNIT -V RECENT TRENDS IN NUTRITIONAL RESEARCH**
Review collection of recent works and research articles in the field of food science and nutrition.
TEXT BOOKS/ REFERENCES: