

**PhD Entrance Syllabus
School of Health & Allied Sciences
Nutrition and Dietetics**

Unit – I

Advanced Nutrition

Carbohydrates and dietary fibre-Function, classification, sources, deficiency and Toxicity, Proteins - Function, classification, sources, deficiency and toxicity, Fat & Lipids - Function, classification, sources, deficiency and toxicity. Vitamins-Function, classification, sources, deficiency and toxicity, Minerals - Function, classification, sources, deficiency and toxicity .

Unit – II

Clinical Nutrition & Dietetics

Introduction to clinical Nutrition, Therapeutic modification of the normal diet, Nutrition in obesity, underweight and Malnutrition, Nutrition in gastrointestinal disorders, Nutrition in cardiovascular diseases, Nutrition in kidney and liver disorders, Nutrition in Degenerative diseases, Nutrition in Special Conditions.

Unit – III

Advanced Food Science

Food science & Properties of food – physical and chemical properties, Cereals and Millets, Legumes and Pulses and sugars, Milk & milk products and fats, Egg, fish, poultry and meat, Vegetables and fruits

Unit – IV

Community Nutrition

Advanced Community Nutrition, Introduction to community nutrition, Epidemiology of nutritional disorders in community, Assessment of nutritional status, Programmes and policies for improvement of nutritional status, National and international agencies in combating malnutrition, Challenges to community nutritional status.

Unit – V

Nutrition Through Lifecycle

Balanced diet, Meal planning, Nutrition during pregnancy, lactation, infancy, toddlerhood, preschool stage, school going children, and adolescence. Growth and development during different stages of lifecycle, nutrition for adults, older adults and old populations, ICMR-NIN RDA (Recommended Dietary Allowance) and EAR (Estimated Average Requirements).

Unit- VI

Human Physiology

Human body systems – Cardiovascular system, Digestive system, Urinary system, Blood, Lymphatic system, Respiratory system, Musculoskeletal system, Endocrine and Reproductive system.

Unit -VII

Food Service Management

Meal planning, Portion sizing, Food service institutions, Types of food service, Food service equipment, lay outs, designs, Principles of meal service and planning, Catering service management and Institutional food service.

Unit -VIII

Research Methodology and Biostatistics

Research Methodology- Types of research, Types of research designs, Qualitative and quantitative research, applied research , Sampling method , and Preparation of research Proposal , Basic Statistics – Measures of central tendencies, dispersion uses of graphs, and tables, Software in statistical analysis, Probability, Types of errors in statistics , Tests of significance , and sample size. .