

## **514. NUTRITION & DIETETICS**

### **Unit – 1 Nutrition and Biochemistry**

- . Classification, Functions and Sources of proximate principals:
- . Carbohydrates: Glycolysis, TCA cycle, HMP Shunt pathway, Gluconeogenesis, glycogenolysis, glycogenesis
- . Lipids, biosynthesis of fatty acids and Beta-oxidation
- . Amino acids, decarboxylation, transamination and urea synthesis
- . Proteins translation and protein synthesis
- . Nucleic acids, DNA RNA and transcription
- . Requirements of Macro and micro Nutrients for various age groups including pregnancy and lactation
- . Sports nutrition
- . Functions and deficiencies of Vitamins, Minerals and Protein energy malnutrition

### **Unit – 2. Clinical Nutrition**

- . Assessment of Nutritional status: Anthropometric measurements, Biochemical, Clinical and Diet surveys,
- . Liver and Renal Function Tests
- . Nutrition in critical care, Burns and surgery
- . Obesity
- . Disorders of Gastro-intestinal tract: liver, kidney, pancreas, cardiovascular

### **Unit – 3. Food Processing and Preservation**

- . Processing of food grains
- . Oil seeds, fruits and vegetables
- . Animal and animal products
- . Principles and methods of food preservation
- . Food toxicants and Food borne diseases
- . Contamination and spoilage of: Cereals and cereal products, milk and milk products, white and red meat and their products, fruits and vegetables and canned foods

### **Unit – 4 . Research Methodology, Patient Counseling**

- . Methods of data collection and compilation
- . Statistical evaluation: Measures of central tendency, dispersion
- . Correlation and regression
- . Chi square and T test
- . Diet Counseling for Athletes, Community and Patients
- . Nutrition-Education: Tools and Techniques
- . Food Service Management