EXTENDED LECTURE OUTLINE

FND6 311 THERAPEUTIC NUTRITION (3+1)

Sl. No.	Course content	Hours
1	**Terminologies used in therapeutic nutrition** • Therapeutic Nutrition • Diet Therapy • Medical Nutrition Therapy (MNT): • Nutrition Care Process (NCP): • Nutritional Assessment • Nutritional Status: • Balanced Diet • Recommended Dietary Allowance (RDA) • Estimated Average Requirement (EAR) • Adequate Intake (AI) • Tolerable Upper Intake Level (UL) • Therapeutic Diet • Normal Diet • Modified Diet • Malnutrition • Nutrient Density • Glycaemic Index (GI) • Glycaemic Load (GL) • Nutrition Education • Nutrition Counselling • Dietician • Therapeutic Nutrition Process	2
2	**Food Groups and Food Pyramid** • Four food groups plan • Five food groups plan • Seven food groups plan	1

	• Nine food groups plan • Eleven food groups plan and its nutritive value • Ten food groups by Dietary guidelines for Indians - 2024 (ICMR, NIN) • Guidelines for using basic food groups • Significance of five food groups for health care professionals • Food Guide Pyramid-Purpose	
3	**Importance and Components of Diet History** • Diet History- Definition • Objectives of Diet History • Components of Diet History ✓ Personal Information ✓ Medical History ✓ Dietary History ✓ Socioeconomic History ✓ Lifestyle History ✓ Food Allergy and Intolerance • Nutrition Screening- Common Screening Tools • Nutritional Assessment ✓ Objectives ✓ Nutrition Care Process (NCP)- Steps of Nutrition Care Process ✓ ABCD Method of Nutritional Assessment ✓ Flowchart for Nutritional Assessment	**1**
4	**Different principles of therapeutic diet** • Principles and objectives of therapeutic nutrition • Importance of therapeutic meal planning • Factors to be considered in therapeutic meal planning • Requirement of therapeutic diets in different conditions	**1**
5	**Therapeutic Modifications of normal diet interms of consistency and nutrients** **<u>Modifications of nutrients</u>** Indications and Principles, foods to be included and avoided	**3**

	• High and low calorie/energy diet • High and low protein diet • High and low fiber diet • Fat controlled and fat restricted diet • Sodium controlled diet **Modification of consistency/ Texture** • **Liquid diet** ➢ Clear fluid diet ➢ Full fluid diet • **Soft diet** • **Regular normal diet** **Special feeding methods** Principles of formula feed Indications of special feeding • **Enteral feeding** ✓ Nasogastric feeing ✓ Gastrostomy ✓ Jejunostomy ✓ Rectal tube feeding • **Parentral feeding** ✓ Principles and indications ✓ Total parental Nutrition (TPN) ✓ Complications of TPN • **Limitations of special feeding methods**	
6	**Role of Dietician in medical nutrition therapy** 1. Dietician- Definition, 2. Role and responsibilities of dietician 3. Code of ethics and competencies of dietician	**2**
7	**Diet during malnutrition** **Underweight** - etiology, assessment and dietary management in leanness. **Overweight** - etiology, assessment and dietary management. **Obesity** - etiology, theory of obesity, diagnosis and dietary management	**3**
8	**Diet during infections and fevers**	**3**

	Infection: • Definition, defence mechanism in the body (brief) • Role of nutrition in infections • Effects of infection on body mechanism • Effects of infection on nutrients **Fever:** • Definition • Host defence mechanism • Types of fevers • Metabolic changes in fever • General dietary considerations during infection and fever **Causes, symptoms and signs, principles of dietary management in** **A. Acute fever** a. Typhoid b. Influenza c. Malaria d. Diet in Pneumonia, Cholera, measles, chicken pox and mumps **B. Chronic fever** a. Tuberculosis b. AIDS/ HIV • Immuno-compromised diet (neutropenic diet) and opportunistic infections	
9	**Diet during gastrointestinal disorders** • **Esophagitis:** Definition, types of esophagitis conditions, clinical symptoms, Dietary management • **Diarrhoea** – Introduction, Acute and Chronic Diarrhoea: signs and Symptoms, Treatment and Dietary management • **Constipation** – causes, symptoms and signs, principles of dietary management.	**4**

	• **Peptic ulcers** - etiology, symptoms and signs, principles of dietary management. • **Gastro Oesophagus Reflex Diseases (GERD):** symptoms and signs, principles of dietary management • **Diverticulitis:** symptoms and signs, principles of dietary management • **Malabsorption Syndrome: Causes, symptoms, and dietary recommendations for the following** **a.** Celiac disease **b.** Steatorrhoea **c.** Lactose intolerance **d.** Inflammatory bowel disease **e.** Ulcerative Coloitis **f.** Short bowel syndrome	
10	**Liver and gall bladder disorders** • Functions of liver • Agents responsible for liver damage and mode of damage (Fat globulation, necrosis, cirrhosis of liver) • **Jaundice**- causes, symptoms and signs, principles of dietary management • **Infective hepatitis** -causes, symptoms and signs, types, principles of dietary management • **Cirrhosis of liver** -causes, symptoms and signs, principles of dietary management • **Hepatic encephalopathy-** precipitating factors and dietary management • **Liver cirrhosis:** etiology, symptoms and clinical findings, principles of dietary management • **Cholelithiasis** - causes, symptoms and signs, principles of dietary management.	**4**
11	**Kidney disorders and dietary management** 1. Functions of Kidney	**4**

	2. Biochemical assessment of renal function • **Glomerulonephritis:** causes, clinical symptoms and principles of dietary management • **Nephrosis (Nephrotic syndrome):** clinical symptoms and principles of dietary management. • **Acute renal failure:** Causes, clinical symptoms and principles of dietary management. • **Chronic renal failure**: Causes, clinical symptoms and principles of dietary management. • **Renal calculi:** causes, types of calculi and Principles of dietary management • **Dialysis** – types and their characteristics, principle of dietary management	
12.	**Arthritis and Gout** • **Arthritis-** Types and common symptoms, principle of dietary management • **Gout** - etiology, signs and symptoms, types, risk factors, principles of dietary management.	**3**
13.	**Cardiovascular disorders** • Atherosclerosis - signs and symptoms, risk factors, principles of dietary management of atherosclerosis • Hypertension – etiology, symptoms, dietary management and DASH diet • Myocardial infarction -causes, symptoms and signs, principles of dietary management • Cerebrovascular stroke, Congestive heart failure - causes, symptoms and signs, principles of dietary management. • Mediterranean diet for CVD	**4**
14	**Diabetes mellitus-**	**4**

	• Diabetes mellitus - etiology, signs and symptoms, types, risk factors. Diagnosis of diabetes mellitus and complications. • Principles of dietary management in Type I, Type II and Gestational diabetes mellitus and life style management of diabetes. • Glycaemic index and glycaemic load: Factors which influence the glycaemic index and classification	
15	**PCOD/ PCOS** etiology, signs and symptoms, types, risk factors and dietary management	**2**
16	**Cancer** • Cancer and process of carcinogenesis • Causative factors • Dietary management • Guidelines for prevention of cancer	**3**
17	**Inborn errors of metabolism: Definitions and dietary management** • Phenylketanuria, tyrosinemia, maple syrup urine disease and homocystinuria, galactosemia	**2**
18	**Allergies and intolerance:** **Allergies:** Introduction, food as allergen, symptoms and treatment of food allergies **Food intolerance**: Introduction **Causative factors:** • Enzyme deficiency or defects • Naturally occurring food chemicals • Reaction to food additives • Reaction to microbial contamination • Food indigestibility • Psychological reaction	**2**
19	**Burns and Trauma** • **Burns:** Introduction, classification, consequences of severe burns,	**2**

	aim of treatment, metabolic changes during burn, role of nutrition • **Trauma** : Classification of Trauma, Physiological & Metabolic Response to Trauma, Aims of Trauma Treatment, Role of Nutrition in Trauma Recovery	
20	**Common Autoimmune diseases/disorders** • Categorization & Common Autoimmune Diseases • Etiology and Pathogenesis • Core Aims of Medical Treatment • Core Pathophysiological Targets of Nutrition • Prominent Dietary Protocols for Autoimmunity • Disease-Specific Dietary Interventions	**2**
	Total class hours	**52**

REFERENCES

1. SRILAKSHMI, B., 2014. **Dietetics**, New age International (P) Limited, Publishers,.New Delhi.

2. JOSHI, S. (2000). **Nutrition and dietetics**, Tata McGraw-Hill Publishing Co. Ltd., New Delhi.

3. IGNOU STUDY MATERIAL ON CLINICAL AND THERAPEUTIC NUTRITION

4. KSOU STUDY MATERIAL ON NUTRITION AND DIETETICS

JOURNALS

- Indian Journal of Nutrition and Dietetics
- Journal of Indian Medical Association
- Nutrition Reviews