Name of Faculty	:	Faculty of Nursing
Name of Program	:	Basic B.Sc. Nursing
Course Code	:	2BSN02
Course Title	:	Applied Nutrition and Dietetics
Type of Course	:	PC
Year of Introduction	:	2023-24

Pre requisite	:	Basic Knowledge of Applied Nutrition and Dietetics Subject
Course Objective	:	The course is designed to assist the students to acquire basic knowledge and understanding of the principles of Nutrition and Dietetics and apply this knowledge in the practice of Nursing.
Course Outcomes	:	On completion of the course, the students will be able to
	CO1	Identify the importance of nutrition in health and wellness.
	CO2	Apply nutrient and dietary modifications in caring patients.
	CO3	Explain the principles and practices of Nutrition and Dietetics
	CO4	Identify nutritional needs of different age groups and plan a balanced diet for them.
	CO5	Identify the dietary principles for different diseases.
	CO6	Plan therapeutic diet for patients suffering from various disease conditions.
	CO7	Prepare meals using different methods and cookery rules.

Course Content

Unit No.	Topics	Teaching Hours	Weightage	Mapping With COs
I	**Introduction to Nutrition** **Concepts** • Definition of Nutrition & Health • Malnutrition- Under Nutrition & Over Nutrition • Role of Nutrition in maintaining health • Factors affecting food and nutrition **Nutrients** • Classification • Macro & Micronutrients • Organic & Inorganic • Energy Yielding & Non-Energy Yielding **Food** • Classification-Food groups • Origin	02	3.33%	CO1
II	**Carbohydrates** • Composition -starches, sugar and cellulose • Recommended Daily Allowance(RDA) • Dietary sources • Functions **Energy** • Unit of energy-Kcal • Basal Metabolic Rate(BMR) • Factors affecting BMR	03	05%	CO2,CO3
III	**Proteins** • Composition • Eight essential amino acids • Functions • Dietary sources • Protein requirements-RDA	03	05 %	CO2, CO3
IV	**Fats** • Classification-saturated &unsaturated • Calorie value • Functions • Dietary sources of fats and fatty acids • Fat requirements-RDA	02	3.33 %	CO2, CO3

V	**Vitamins** • Classification-fat soluble & water soluble • Fat soluble-Vitamins A, D, E, and K • Water soluble-Thiamine (vitamin B1), Riboflavin (vitamin B2), Nicotinic acid, Pyridoxine (vitamin B6), Pantothenic acid, Folic acid, Vitamin B12, Ascorbic acid (vitamin C) • Functions, Dietary Sources &Requirements-RDA of every vitamin	**03**	**05 %**	**CO2, CO3**
VI	**Minerals** • Classification- Major minerals (Calcium, phosphorus, sodium, potassium, and magnesium)and Trace elements • Functions • Dietary Sources • Requirements-RDA	**03**	**05 %**	**CO2, CO3**
VII	**Balanced diet** • Definition, principles, steps • Food guides – Basic Four Food Groups • RDA – Definition, limitations, uses • Food Exchange System • Calculation of nutritive value of foods • Dietary fibre **Nutrition across life cycle** • Meal planning/Menu planning – Definition, principles, steps • Infant and Young Child Feeding (IYCF) guidelines- breast feeding, infant foods • Diet plan for different age groups- Children, adolescents and elderly • Diet in pregnancy- nutritional requirements and balanced diet plan • Anemia in pregnancy-diagnosis, diet for anemic pregnant women, iron & folic acid supplementation and counseling • Nutrition in lactation-nutritional requirements, diet for lactating mothers, complementary feeding/weaning	**07**	**25 %**	**CO2, ,CO4**
VIII	**Nutritional deficiency disorders** • Protein energy malnutrition- magnitude of the problem, causes, classification, signs	**06**	**10 %**	**CO2, CO6**

	&symptoms, Severe acute malnutrition (SAM), management & prevention, nurses 'role • Childhood obesity-Signs & symptoms, assessment, management & prevention and nurses' role • Vitamin deficiency disorders- vitamin A, B, C & D deficiency disorders: causes, signs & symptoms, management & prevention and nurses 'role • Mineral deficiency diseases-iron, iodine and calcium deficiencies: causes, signs & symptoms, management &prevention and nurses' role			
IX	**Therapeutic diets** • Definition, Objectives, Principles • Modifications – Consistency, Nutrients, • Feeding techniques. • Diet in Diseases – Obesity, Diabetes Mellitus, CVD, Underweight, Renal diseases Hepatic disorders Constipation, Diarrhea, Pre and Post operative period	**04**	**18.34 %**	**CO2, CO5,CO6**
X	**Cookery rules and preservation of nutrients** • Cooking **–** Methods, Advantages and Disadvantages • Preservation of nutrients • Measures to prevent loss of nutrients during preparation • Safe food handling and Storage of foods • Food preservation • Food additives and food adulteration • Prevention of Food Adulteration Act (PFA) • Food standards	**03**	**05%**	**CO2,CO7**
XI	**Nutrition assessment and nutrition education** • Objectives of nutritional assessment • Methods of assessment-clinical examination, anthropometry, laboratory & biochemical assessment, assessment of dietary intake including Food frequency questionnaire (FFQ)method • Nutrition education-purposes, principles and methods	**04**	**6.67 %**	**CO2, CO1**

XII	**National Nutritional Programmes and role of nurse** • Nutritional problems in India • National nutritional policy • National nutritional programmes: Vitamin Supplementation, Anemia Mukt Bharat Programme, Integrated Child Development Services (ICDS), Mid-day Meal Scheme (MDMS), National Iodine Deficiency Disorders Control Programme (NIDDCP), Weekly Iron Folic Acid Supplementation (WIFS) an others as introduced • Role of nurse in every programme	**03**	**05 %**	**CO2,CO1**
XIII	Food safety • Definition, Food safety considerations & Measures • Food safety regulatory measures in India – Relevant Acts • Five keys to safer food • Food storage, food handling and cooking • General principles of food storage of fooditems (ex. milk, meat) • Role of food handlers in food borne Diseases • Essential steps in safe cooking practices	**02**	**3.33**	**CO1**
Food born diseases and food poisoning are dealt in Community Health Nursing-I				

Suggested distribution of Theory Marks Using Bloom's Taxonomy						
Level	Remembrance	Understanding	Application	Analyse	Evaluate	Create
Weightage	**25**	**30**	**30**	**5**	**5**	**5**

NOTE:This specification table shall be treated as a general guideline for the students and the teachers.The actual distribution of marks in the question paper may vary slightly from above table.

Suggested List of Experiments/Tutorials

Sr.No.	Name of Experiment/Tutorial	Teaching Hours
1	Preparation of balanced diet for different categories, Low cost nutritious dishes	08
2	Lab session on preparation of therapeutic diets	07

Name of Laboratory Required

Sr.No.	Name of Laboratory
1	Nutrition lab

Reference Books

Sr.No.	Name of Reference Books
1	A textbook of Biochemistry for B.sc Nursing by Pankaja Naik,, Jaypee Publication 1st edition, 2022
2	Essentials of Biochemistry for B.sc Nursing students by Harbans lal, CBS publishers and Distributors
3	Textbook of Biochemistry for Paramedical students by P. Ramamoorthy, 2nd edition,2021, Jaypee Publication
4	Applied Biochemistry for B.sc Nursing by Manjula shantaram, Jaypee Publication 2nd edition, 2022
5	Concise textbook of Biochemistry for Paramedical students by DM Vasudevan and Sukhes Mukherjee, 2nd edition 2021, Jaypee Publication
6	Textbook of Nutrition and Dietetics for B.sc Nursing students by Monika Sharma, 3rd edition, CBS Publications.
7	A comprehensive textbook of Applied Nutrition and Dietetics by Parshan Sohi, 3rd edition,2022, Jaypee Publications.
8	A comprehensive textbook of Nutrition for B.sc Nurses bu Rishi Avasthi, 1st edition,2016, Jaypee Publication.
9	Applied Nutrition, Dietetics and Biochemistry for Basic B.sc Nursing By I clement, 2nd editions, 2022, Jaypee Publication
10	Essentials of Nutrition and Dietetics for Nursing by Sheila John and Jasmine Devaselvam, 2nd edition, Wolter kluwer publication.