PROGRAMME OUTCOMES AND COURSE OUTCOMES

2023 – 2024

Name of the Programme: M.Sc.Human Nutrition and Nutraceuticals **Programme Code: PSNN**

Programme Outcomes:

PO1	Scientific knowledge in the thrust areas of Foods, Nutrition and Nutraceuticals.
PO2	Acquisition of skills in the qualitative and quantitative analysis of blood and urine and nutrient analysis of various foods.
PO3	Professional competence in planning normal and therapeutic diets and counselling.
PO4	Social responsibility by participating in community health programs.
PO5	Enterprising by developing innovative value added food products.

Course Outcomes:

Course Code	Course Title	Course Outcomes
23PG1N1	Macronutrients	CO1 Explain the functions, digestion, absorption, deficiency, sources & requirements of Macronutrients and water CO2 Elaborate the energy value of foods by using different Calorimetric methods CO3 Identify the functions, digestion, absorption, deficiency, sources & requirements of Minerals CO4 Analyze the functions, digestion, absorption, deficiency, sources & requirements of Vitamins CO5 Explain the knowledge on nutrient-nutrient and nutrient- drug interrelationship
23PG1N2	Advanced Dietetics	CO1 Discuss the Nutritional screening care process, assessment intervention, monitoring and evaluation CO2 Describe the medical nutritional management of gastrointestinal diseases

		CO3 Plan diets for the management of pulmonary, rheumatic and physiological stress. CO4 Categorize the foods used in the treatment of weight imbalance and metabolic disorders. CO5 Explain the treatment strategies for cardiovascular, renal diseases & cancer.
23PG1N3	Advanced Dietetics Practical	CO1 Discuss and plandiet for weight imbalance. Plan and prepare diet for Diabetes Mellitus[IDDM and NIDDM] and Atherosclerosis with Hypertension CO2 Analyse the diet for Celiac disease, Peptic Ulcer, Lactose intolerance, Hepatitis and Cirrhosis. Recommend diet for cancer, pre and post Bariatric surgery patients and post burn condition
23PG1NE1	Functional Foods and Nutraceuticals	CO1Discuss and understand the concepts of functional foods. CO2 Identify the role of prebiotics, probiotics &synbiotics as functional ingredients
23PG1NE3	Advanced Human Physiology	CO1 Describe the functions of blood and endocrine system CO2 Illustrate the anatomy and functions of circulatory system CO3 Analyse the mechanism of musculoskeletal and respiratory systems
23PG1NAE	Nutrition & Dietetics	CO1 Describe different nutrition terms and concepts of food and nutrition. CO 2 Explain the role of macro and micronutrients in human nutrition CO 3 Analyze the principles of diet therapy in the management of diseases.

23PG2N4 -	Advanced Food Science	CO1 Describe the relationship between the chemical structure and the properties of the main components in food CO2 Illustrate the Composition and characteristics of various food commodities CO3 Identify the role cooking quality of foods and apply food scienceknowledge in food industries CO 4 Explain the proper use of food colors and food additives in safe food preparation
23PG2N5	Analytical Instrumentation	CO1 Explain the principle and instrumentation of chromatography CO2 Summarize the working procedure of electrophoresis CO3 Apply the principle, procedure and application of Photoelectric CO4 Colorimeters, Fluorimeters and Microbiological assays CO5 Analyze the types of Spectrophotometry its principle, procedure and application
23PG2N6	Techniques in Food analysis	CO1 Explain the introduction of laboratory instruments CO2 summarize the standardization of solution CO3 Analyze the food experiments

23PG2NE5	Food Safety and Quality Control	CO1 Outline the concept of food safety and food laws CO2 Explain the toxicants in animal and plant foods. CO3 Examine the various quality assurance systems in food industries. CO4 Determine the functions, methods and properties of packaging and its materials
23PG2NE7	Food Microbiology	CO1 Discuss the basic concepts of food microbiology CO2 Identify food borne intoxications CO3 Analyze the contamination, spoilage and food preservation of foods CO4 Assess the water quality and explain water borne diseases
19PG3N11	Functional Foods & Nutraceuticals in Preventive Dietetics	Explain the role of functional foods and nutraceuticals in oral, gut and renal health. Describe the importance of functional foods in weight management and CVD.
19PG3N12	Community Nutrition	Associate Nutrition and National development Describe the strategies to overcome malnutrition Identify the Nutrition intervention programs and organization Analyze the National nutrition policy and Nutrition surveillance system

19PG3N13	Analytical Instrumentation	Explain the principle and instrumentation of chromatography Summarize the working procedure of electrophoresis Apply the principle, procedure and application of Photoelectric Colorimeters, Fluorimeters and Microbiological assays Analyze the types of Spectrophotometry its principle, procedure and application Explain the different types of pH isotopes, buffers and its application
19PG3NE1	Food Product Development and Sensory Evaluation	Explain the classification, characteristics and future trends in food product development Choose the different sensory tests employed for food evaluation
19PG3NE2	Institutional Management	CO1 Outline the key areas of food service institutions. CO2 Discuss the theories and concepts of institutional management. CO3 Determine the scope and theories of personnel management.
19PG3N15	Techniques for Experimental Nutrition Lab	CO1 Explain the principles of analytical techniques CO2 Examine the amount of free fatty acid and peroxide values in fats and oil CO3 Choose the method of analyzing amount of antioxidant present in foods
19PG4N16	Food Microbiology	CO1 Discuss the basic concepts of food microbiology

19PG4N17	Nutritional Biochemistry	CO1Describe the structure of carbohydrates CO2 Discuss protein metabolism CO3 Compare the structure and metabolism of RNA & DNA
19PG4N18	Advanced Food Science and Processing Techniques	CO1 Identify the methods of harvesting & storage of vegetables and fruits CO2Analyze the processing methods of milk & egg products CO3Assess the processing & preservation methods of fleshy foods
19PG4NE3	Food Safety and Quality Control	CO1 Define the concept of food safety and food laws. CO2 Plan the various quality assurance systems in food industries. CO3Explain the toxicants in animal and plant foods.
19PG4NE4	Nutrition in Critical Care and Disasters	CO1 Explain nutritional screening, assessment and support system for critically ill CO2Plan special nutrition therapy in critical illness - stress, burns, cardiovascular and kidney CO3Examine the special nutrition therapy in gastrointestinal tract surgery and hepatic transplant
19PG4N19	Food Microbiology Lab	CO1 Describe the microbiological laboratory techniques CO2 Select the optimum sterilization and disinfection techniques CO3 Analyse the preparation and storage of culture media

19PG4N20	Nutrient Analysis Lab	CO4 Estimate the calories and moisture content present in foods. CO5 Explain the estimation of acidity and protein content in foods. CO6Calculate the amount of fat present in Nuts and oilseeds.