M.Sc. (Nutrition and Dietetics)

Programme Outcomes (POs)

PO1. Critical Thinking To impart knowledge from the physical and biological sciences for understanding the role of food and nutrients in health and disease processes.

PO2. Design/development of solutions Evaluate nutrition information based on scientific reasoning for clinical, community, and food service application

PO3. Problem analysis Apply technical skills, knowledge of health behavior, clinical judgment, and decision-making skills when assessing and evaluating the nutritional status of individuals and communities and their response to nutrition intervention.

PO4. Modern tool usage Create, select, adapt and apply appropriate techniques, resources and modern devices to compute nutritional needs with a thoughtfulness of the limitations.

PO5. Environment and sustainability Recognize and assess societal, environmental, health, safety, and cultural issues related to food within local and global contexts.

PO6. Individual and team work Competence in the skills of assessment, planning, management and evaluation of food service, nutrition and dietetic services in institutional food, community nutrition, and clinical dietetics settings

PO7. Professional Ethics Practice state-of-the-art nutrition care in collaboration with other healthcare providers in interdisciplinary settings within the bounds of ethical, legal, and professional practice standards.

PO8. Self-Directed and Life Long Learning Students will utilize advanced principles of health literacy, including critical thinking skills, literature searches, data collection and interpretation, necessary for the implementation of food and nutrition services in professional settings.

Programme Specific Outcomes (PSOs)

PSO1. Students will have a comprehensive understanding of food science and technology principles, including food composition, preservation, processing, packaging, and food safety.

PSO2. Acquire scientific temper leading to critical thinking and research motivation in Foods & Nutrition and its Allied Sciences.

PSO3. Design and communicate scientific concepts, experimental results & analytical arguments and develop solutions for challenging problems of the society

PSO4. Students will demonstrate ethical and professional behavior in their work and be able to communicate effectively with a variety of stakeholders, including clients, patients, healthcare providers, and other professionals.

PSO5. Demonstrate the commitment to the discipline of Personalized and Public Health Nutrition to uphold ethical principles in their career and contribute to societal health, safety and legal issues; and practice their responsibilities as a Nutritionist / Dietitian and other professionals

Course Outcomes

2022-2024

Semester	Subject Code	Subject	Course Outcomes
1	22MASND1C01	Clinical Nutrition- I	CO1: To enable the students to gain insight into the different disease conditions and learn the principals involved in the modification of normal diet in various disease conditions. CO2: To make students aware of the recent advances in the area of clinical nutrition CO3: Apply the principles of diet for the management of metabolic diseases CO4: Acquire the skills and techniques involved in the planning and preparation of therapeutic diets for various ailments

Semester	Subject Code	Subject	Course Outcomes
1	22MSAND1CO2	Nutritional Biochemistry	CO1. Describe macro and micronutrient metabolism, its utilization, requirement and biochemical functions. CO2. Understand the inborn error of metabolism. CO3. Identify biological oxidation and electron transport chain taking place in an organism. CO4. Describe the classification, nomenclature and other basic concepts of enzymes and hormones. CO5. Measure and investigate the physiological consequences of dietary and nutritional manipulation as they relate to essential metabolic pathways.
1	22MSAND1CO3	Food Toxicology	CO1: To gain knowledge on principles of toxicity, characteristics of toxins and their classification. CO2: To analyze the various food toxicants from food processing, preservation and packaging methods. CO3: To understand the naturally occurring toxicants and food contaminants. CO4: To evaluate the measurement of toxicity. CO5: To enlist the food laws and standards related to food toxicology.
1	22MSAND1CE01	Functional Foods	CO 1: To describe the role of antioxidants in the prevention of disease conditions. CO 2: To differentiate between a functional food and a nutraceutical with suitable examples. CO 3: To assess the potential health benefits of different nutraceuticals. CO 4: To examine the application of Probiotics and Prebiotics in the prevention of lifestyle related disease. CO 5: To discuss the Non nutrient effect of different nutrients on the human body.
1	22MSAND1C04L	Nutritional Biochemistry (Lab)	CO1. Learn about qualitative and quantitative identification of various biomolecules. CO2. Understand and perform various traditional and advanced methods and their principles to test blood glucose, urine analysis etc. CO3. Perform biochemical tests using advanced technology /methods.

Semester	Subject Code	Subject	Course Outcomes
1	22MSAND1D01	Statistics	CO1: Analyze statistical data graphically using frequency distributions and cumulative frequency distributions. CO2: Evaluate real-world problems into probability models CO3: Identify the characteristics of different discrete and continuous distributions. CO4: Calculate and interpret the correlation between two variables CO5: Demonstrate understanding of the theory of maximum likelihood estimation

Course Outcomes

2022-2024

Semester	Subject	Course Outcomes
2	Advanced Physiology	CO1: To understand the various physiological structures and functions of the human body. CO2: To integrate the functions of all the systems with disease conditions. CO3: To analyze the different physiological conditions related to human nutrition. CO4: To equip with the principles and techniques of various blood parameters and diseases. CO5: To recognize the role of vital organs and the role of diet to prevent lifestyle disorders.
2	Clinical Nutrition-II	CO1: To gain understanding of physiology in health and pathophysiology in disease. CO2: Understand the etiology, prevalence, clinical signs and symptoms of diseases associated with various parts of the body. CO3: Apply the principles of diet and holistic approach for the management of diseases. CO4: Acquire the skills and techniques involved in the planning and preparation of therapeutic diets for various ailments.

Semester	Subject	Course Outcomes
2	**Institutional Food Service Management**	CO1: To gain a knowledge base about the different types of food service units and its evolution. CO2: To understand the applications and various styles of basic principles for bulk production of the food. CO3: To compare the different selection methods and purchase of food and food service layouts. CO4: To develop skills in menu planning for quality preparation. CO5: To analyze the cost account methods and its importance.
2	**Advanced Food Microbiology:**	CO 1: To describe the characteristics of important pathogens and spoilage microorganisms in foods CO 2: To identify different factors affecting the growth of microorganisms controlling. CO 3: To know the different food borne diseases caused by microorganisms. CO 4: To examine the beneficial effect of organisms in the preparation of food. CO 5: To explain the best way of controlling the microbial spoilage in food.
2	**Nutritional Epidemiology and Public Health**	CO1. Identify and explain the principles and main objectives of epidemiology with basic terms related to the occurrence of disease in a population. CO2. Discriminate between descriptive epidemiology and analytic epidemiology and explain the meanings of disease frequency, disease distribution, and disease determinants in epidemiology. CO3. Understand Epidemiological methods, vector management and different control strategies. Understand different food borne infections and toxic effects of specific food toxicants. CO4. Define health education and state the objectives of health education. Apply the public health and community health education interventions to real life situations. CO 5. Understand the functioning of the Primary health care system and the importance of using Audio-visual aids in health education. Demonstrate a wide range of skills in the use of mass media to spread health awareness and develop own audio-visual aids for this purpose. CO6. Learn about various national and international organizations that work in the field of public health and their missions.

Semester	Subject	Course Outcomes
2	**Advanced Microbiology (Lab)**	CO 1: Develop skills in identification, testing and control of microorganisms in relation to food. CO 2: Preparation of different media and its application in microbiology. CO 3: To demonstrate different culture techniques for the isolation of microorganisms.