

	Program	M.Sc. Nutrition & Dietetics	
	PO Code	Programme Outcomes:	
	PO1	Application of nutrition knowledge to maintain health and nutrition, thereby improving quality of life.	
	PO2	Students will explore their interests within the broad aspects of food science, allowing them to match their interests with potential career opportunities in food industry, hospitals and Public Health organization	
	PO3	Students will be able to relate nutrient needs to developmental levels and plan diets, which will adequately meet nutritional needs at given levels in the society	
	PO4	Students will gain fundamental understanding of a relationship between environment, microorganisms, food borne illness, safety and explain the scientific basis of commercial food preservation techniques	
	PO5	Students will be able to evaluate the current biochemical, physiological, epidemiological literature on the relationships between nutrition, health, diseases including lifestyle diseases	
	PO6	Students will be able to understand nutritional assessment for identifying and monitoring malnutrition and hunger in individuals and communities, using social, dietary, and anthropometric and biochemical measures.	
	PO7	Demonstrate counseling techniques to facilitate nutrition behavior change in the various age groups. Use of nutrition care process to make decisions, to identify nutrition-related problems, determine and evaluate appropriate nutrition interventions	
	PO8	Develop an educational session or program/educational strategy for a	

		target population. Students will be able to assess, monitor and evaluate the impact of public health programs		
	PO9	Apply food safety principles for food product development and for food industry personnel and end consumer		
Sem	Course Code	Course Name	CO Code	Course Outcome
I	CC-01	Applied Physiology	CO1	Demonstrate competency in identifying the major structures and function of the gross anatomy of the central nervous system and peripheral nervous system.
			CO2	Discuss in depth the physiology of the cardiovascular, nervous, musculoskeletal, respiratory, digestive, reproductive and endocrine systems from a regional perspective and the disorders associated to few of the organ systems
			CO3	Describe the cellular components and role of blood and its components
			CO4	Recognize the major organs and vessels of the cardiovascular system and respiratory system and understand their functions
			CO5	Discuss the role of musculo – skeletal system
			CO6	Describe briefly the basic components and functions of the digestive, urinary, reproductive and immune system and endocrine systems
	CC-02	Recent Advances in Nutrition – Macronutrients	CO1	To prepare the students to understand what happens to the ingested nutrients at the cellular level and the nutrient interactions
			CO2	To discuss methods of determining nutrient requirements for humans and discuss the current figures of nutritional requirements

			CO3	To integrate the knowledge into practice guidelines for dietary needs of human at different stages of life
			CO4	To make inferences on the therapeutic importance of macronutrients
	CC-03	Nutritional Biochemistry	CO1	To understand the process of digestion, absorption and transport of carbohydrates and lipids
			CO2	To explain the catabolism of carbohydrates and lipids, role of enzymes involved in these pathways and their regulation
			CO3	To relate the metabolic disorders and inborn errors of carbohydrate and lipid metabolism to their respective pathways
			CO4	To introduce terminologies used in the study of enzymology, enzyme kinetics and inhibition and high energy phosphates in metabolism
			CO5	To develop critical understanding of metabolism in the field of, protein, amino acids and nucleic acids and minerals
	CC-04	Clinical and Therapeutic Nutrition I	CO1	To implement evidence-based knowledge in planning
			CO2	To facilitate understanding of medical nutrition therapy in disease category
			CO3	To gain essential skills and critical thinking to impart holistic nutrition approach to improve the well-being and in relation to diagnosis
			CO4	To develop capacity and aptitude for taking up dietetics as a profession
	AC-01	Food Safety and Quality Assurance	CO1	To gain knowledge about good hygiene practices, under which the important pathogens and spoilage microorganisms are

				commonly inactivated, killed or made harmless in foods
			CO2	To understand the importance of principles that make a food product safe for consumption
			CO3	To describe the basic principles and practices of cleaning and sanitation in food processing operations
			CO4	To gain competence to understand current topics of importance to the food industry and able to identify government regulations required for the good manufacture practices
	AC-02	Techniques in Food Analysis	CO1	To understand and familiarize with the analytical techniques in food samples
			CO2	To be competent to work in the field of food industry
II	CC-05	Recent Advances in Nutrition- Micronutrients	CO1	To differentiate the recent advances in the study of vitamins and minerals
			CO2	To discriminate the nutritional disorders at the individual and population levels
			CO3	To distinguish the concepts related to bioavailability, absorption and adequacy related to therapeutic conditions
			CO4	To analyse, evaluate and accurately interpret research literature
	CC-06	Clinical and Therapeutic Nutrition II	CO1	To implement evidence based updated knowledge in practice
			CO2	To facilitate understanding of medical nutrition therapy in disease category
			CO3	To gain essential skills and critical thinking to impart holistic nutrition approach to improve the well-being and in relation to diagnosis

			CO4	To assess the relationship between nutrition and genes
			CO5	To develop capacity and aptitude for taking up dietetics as a profession
	CC-07	Principles of Food Science	CO1	To expose students develop higher cognitive skills and apply the scientific method to food science problems
			CO2	To develop students' focus and depth in the food science discipline through competency in Food chemistry and analysis
			CO3	The student gains knowledge about food processing of raw food material and their impact on food preparation
			CO4	To make students understand the spoilage and deterioration mechanisms in foods and methods to control deterioration and spoilage
	CC-08	Research Methods in Food Science and Nutrition	CO1	To understand and apply the skills of literature review, building aims and objectives, sampling, tool development in food science and nutrition
			CO2	To understand the popular study designs used in food science and nutrition
			CO3	To learn about different statistical tests and their applications
			CO4	To use MS Excel and SPSS for data analysis
			CO5	To learn to write research proposal and research report
	AC-03	Food Additives	CO1	To understand the principle and the use of food additives in the food preparation
			CO2	Understand the functions and apply knowledge for usage of different leavening agents
			CO3	Acquire broad knowledge of the gamete sweetening agents
			CO4	Understand the role of preservatives in foods in

				increasing the shelf life, palatability and retain the originality
	AC-04	Nutrition Psychology and Diet Adherence	CO1	To develop skills in professional practice, nutrition care process
			CO2	To familiarize, identify, understand and practice components of food psychology
			CO3	To apply nutrition psychology to dietary adherence
			CO4	To demonstrate the relationship between food and health
III	EC-01	Advances in Food Microbiology and Preservation	CO1	To describe the intrinsic and extrinsic factors affecting the growth of microorganisms in food
			CO2	To know the various sources of contamination and principles of food spoilage
			CO3	To understand the principles and methods of food preservation
			CO4	To discuss the various Food borne Outbreaks
			CO5	To explain the different techniques used for microbial examination of food
			CO6	To know the therapeutic value of fermented foods
	EC-01	Program Planning and Nutrition Education in the Community	CO1	To familiarize with the assessment of the health and nutrition needs of the community
			CO2	To understand the process of planning, implementation and evaluation of public health nutrition programmes
			CO3	To enable designing an action plan for addressing a public health nutrition problem in the community

			CO4	To develop communication skills to impart effective nutrition education to community
EC-02	Nutraceuticals and Functional Foods	CO1	To recognize the growing importance of functional foods and nutraceuticals	
		CO2	To interpret the related recent trends in the market	
		CO3	To know implications of functional foods with respect to ethical, social issues	
		CO4	To discuss the current guidelines and regulations in Indian context	
EC-02	Pediatric and Geriatric Nutrition	CO1	To impart, upgrade knowledge and skills in the area of pediatric and geriatric nutrition	
		CO2	To critically analyze, develop, implement integrated approach in pediatric scenario	
		CO3	To implement nutrition principles in the delivery of nutrition services to the elderly to improve Quality of Life	
		CO4	To facilitate and equip to meet the needs of healthcare practitioners, government, non-government institutions engaged in pediatrics and geriatrics	
EC-03 (DSE)	Community Nutrition and Public Health	CO1	To introduce students to current issues and recent research in public health nutrition and health promotion, with particular emphasis on nutrition-related policy	
		CO2	To enhance students' critical thinking skills and ability to become future health professionals	
		CO3	To expose students to opportunities for future careers in the area of public health	

			CO4	To exhibit knowledge and skills required to design and plan a food and nutrition intervention project/program
	EC-04	Sports Nutrition	CO1	To associate the physiological and biochemical events which occur in a variety of exercise and nutrition
			CO2	To identify and distinguish the recommendations for nutrition and diet for athletes in the activities of constituting sports
			CO3	To analyse training adaptations and its implications
			CO4	To criticize the implications of the use of ergogenic aids in improving sports performance
	AC-05	Nutrition Counseling	CO1	To develop counseling competencies in professional practice, nutrition care and management in Dietetic Education and Practice
			CO2	To familiarize, identify, understand and practice components of counseling in the practice of dietetics
			CO3	To apply nutrition care process to make appropriate nutrition interventions
			CO4	To demonstrate counseling techniques to facilitate nutrition behavior change for individuals and groups
	OE	Nutrition for Women	CO1	To apply knowledge to maintain health and nutrition to improve quality of life
IV	EC-05	Food Product Development	CO1	To understand aspects of food processing involved in food product development
			CO2	To develop a new product which is marketable, nutritional and economically viable
			CO3	To acquaint the students with the process involved in

				setting up a food processing or food manufacturing unit
			CO4	To build competency in reading and understanding nutrition labeling and packaging laws governing regulations
	EC-05	Nutrition during Emergency	CO1	To identify public health practices for disease control and prevention, including surveillance, screening and outbreak investigation in humanitarian emergency situations
			CO2	Identify individual, organizational and community concerns, resources and nutrition intervention in large scale humanitarian emergencies
	EC-06	Food Processing and Functional Quality	CO1	To apply critical thinking and problem-solving skills to address current challenges in the food industry
			CO2	To apply scientific knowledge to assess and solve food science problems
			CO3	To understand basic principles of common food preservation methods
			CO4	To practice principles and practices of cleaning and sanitation in food preparation Operations
			CO5	To interpret scientific principle behind food processing methods
			CO6	To learn the harvesting and processing techniques for perishable foods
	EC-06	Nutritional Epidemiology	CO1	Describe the utility and limitations of different epidemiological study designs for research in nutritional epidemiology
			CO2	Describe the strengths and limitations of different methods of measuring diet and identify when specific

				dietary methods may be most appropriate
			CO3	Describe strategies that can be used to evaluate or adjust for other dietary and lifestyle factors that may explain or influence relationships of diet and disease
			CO4	Describe the current state of epidemiological evidence for relationships of diet to the development of selected diseases
			CO5	Critically evaluate nutritional epidemiology research publications
	EC-07 (DSE)	Recent Advances in Nutrition during Lifecycle	CO1	To familiarize with physiological changes during life cycle
			CO2	To understand the importance of nutrients during special condition
			CO3	To understand the inter-relationship between nutrition and growth
			CO4	To equip and facilitate to meet the requirements of Government and Non-Government organizations engaged in maternal, child, adolescent and geriatric nutrition