DEPARTMENT OF FOODS AND NUTRITION

Programme: M.Sc., Foods & Nutrition

PO No.	Programme Outcomes Upon completion of the M.Sc. Degree Programme, the graduate will be able to
PO-1	inculcate scientific temper with human values through higher education.
PO-2	perceive nutritional problems and address technical solutions ethically to support nation's goal for sustainable development.
PO-3	acquire knowledge in Food Science, Nutrition in Health and Disease, Community Nutrition and Food Processing.
PO-4	gain Analytical skills in the field of Food Science, Nutrition, Dietetics, Community Nutrition, Food Processing, Food safety and Quality control.
PO-5	apply the principles of Food Science and Nutrition in tune with the needs of the Institution / Industry / Community/ Entrepreneurship.

PSO No.	Programme Specific Outcomes Upon completion of these courses the student would
PSO-1	equip the students with knowledge and confidence for successful career in Hospitals, Food Industries, Fitness Clinics and inter-disciplinary fields
PSO-2	develop professional competency to address the needs and problems of society ethically
PSO-3	excel in research and contribute to development of Food Industry and Community
PSO-4	prepare the students for life-long independent and reflective learning
PSO-5	exhibit managerial skills and ability to work in collaborative and multidisciplinary tasks in their profession

Course Title	ADVANCED FOOD SCIENCE	
CODE	**18FNPC101**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Compare and apply the properties of colloidal dispersions, emulsifying agents in food industry	K3, K4
CO-2	Determine the physico-chemical changes during processing of cereals and pulses	K5
CO-3	Assess the effect of heat, acid and alkali on pigments in fruits and vegetables and milk and milk products	K5
CO-4	Judge the quality of fleshy foods and egg and their role in cookery	K5
CO-5	Assess the role of sugars, fats and oils and spices and condiments in cookery and study their physico-chemical properties	K5

Course Title	PHYSIOLOGICAL ASPECTS OF NUTRITION	
CODE	**18FNPC102**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Analyze the changes in blood coagulation disorders, altered enzyme function and organ function	K4
CO-2	Evaluate the changes in immunity during malnutrition, infection and hypersensitivity	K5
CO-3	Evaluate the mechanism of Gastro Intestinal Hormones and explain the regulation of water and electrolyte balance	K5
CO-4	Study the relationship between nutrients and drug action and interpret the mechanism of drug action and factors modifying drug effects	K5
CO-5	Examine the factors influencing food intake and deduce the metabolic changes in obesity and starvation	K4

Course Title	NUTRITIONAL BIOCHEMISTRY	
CODE	**18FNPC103**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Describe and distinguish various pathways of carbohydrate metabolism and energy production	K3 and K4
CO-2	Identify the pathways of fat metabolism and examine the causes of fatty liver	K3 and K4
CO-3	Classify the types of amino acids, explain the pathways of protein and hemoglobin synthesis and breakdown	K4 and K5
CO-4	Explain the pathways of purine and pyrimidine metabolism	K5
CO-5	Choose and apply appropriate techniques for the estimation of biochemical parameters.	K5

Course Title	NUTRITION THROUGH LIFE CYCLE	
CODE	**18FNPC104**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Evaluate the nutritional needs of growth and development for different age groups	K3, K4
CO-2	Determine the nutrient requirement on the basis of RDA for different age groups	K3,K4
CO-3	Discuss the nutritional problems in different age groups and identify solutions to overcome them	K4,K5
CO-4	Formulate supplementary foods to suit different age groups	K5
CO-5	Assess the physical fitness and evaluate the nutritional requirement during physical activity and exercise	K5

Course Title	RESEARCH METHODOLOGY AND STATISTICS	
CODE	**18FNPC205**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Acquaint students with understanding of research process, problem identification for research and develop research design	K2 ,K3
CO-2	Understand the theoretical basis of sampling and to enable data collection and analysis	K4, K5
CO-3	Design effective research report	K6
CO-4	Select and apply suitable measures in problem solving	K5
CO-5	Select appropriate inferential statistics for interpretation of data	K5

Course Title	COMMUNITY NUTRITION	
CODE	**18FNPC206**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Evaluate the causes of major nutritional deficiency disorders and apply control measures	K5
CO-2	Analyze the mode of transmission of communicable diseases and execute control measures to curtail its incidence	K4
CO-3	Acquire the knowledge on the objectives and function of the national and International organizations in collaboration with the member states and other agencies	K3
CO-4	Identify and create action plans through nutrition education to overcome various nutritional problems	K3,K6
CO-5	Analyze nutritional Surveillance and recommend measures to achieve food security	K4

Course Title	NUTRITION IN DISEASE – I	
CODE	**18FNPC207**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Classify, compare and contrast the types of hospital diets and to identify the role of various types of dietitian	K3 , K4
CO-2	Perceive skills in diet counseling and patient care	K5
CO-3	Evaluate the role of diet in etiology and prevention of metabolic disorders	K5
CO-4	Develop and justify appropriate menu plan for treatment of diseases and differently abled individuals	K5 , K6
CO-5	Prioritize the role of nutrition in cancer therapy	K6

Course Title	MACRONUTRIENTS	
CODE	**18FNPC208**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Determine the energy expenditure and predict the energy requirement based on expenditure	K5
CO-2	Classify and describe the types and functions of macronutrients	K4, K5
CO-3	Discuss the digestion, absorption, utilization and assess the effect of deficiency of macronutrients	K5
CO-4	Compute the protein requirement and evaluate the protein quality	K5
CO-5	Analyze the relationship between nutrients and hormones in metabolism. To identify the effect of alcohol in nutrient metabolism	K4,K3

Course Title	FOOD ANALYSIS	
CODE	**18FNPCP01**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Prepare the reagents needed for the estimation various nutrients	K3
CO-2	Acquire the techniques to evaluate the composition with analytical instruments	K5
CO-3	Apply the techniques for research in Food Science and processing	K3

Course Title	FOOD BIOTECHNOLOGY	
CODE	**18FNPC310**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Explain the stages of cell growth and application of tissue culture techniques on foods	K5
CO-2	Discuss the steps in gene cloning and its applications	K6
CO-3	Construct the fermenter design and apply the stages of fermentation in production of fermented various food products	K4 & K6
CO-4	Discover the microbial production of enzymes and its applications in food industry	K4
CO-5	Assess the role of biotechnology on environment and learn about the methods of biomass production	K5& K6

Course Title	NUTRITION IN DISEASE – II	
CODE	**18FNPC311**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Identify the type of fever, allergy and dental diseases and plan the diet accordingly	K3& K6
CO-2	Classify grades of obesity, underweight and psychiatric disorders	K4
CO-3	Distinguish the dietary management in liver diseases	K4
CO-4	Assess the symptoms of renal diseases and choose appropriate diet	K5
CO-5	Justify the diet plans for disorders of nervous and skeletal system and modify the diet for AIDS patients	K5 & K6

Course Title	FOOD QUALITY CONTROL & PRODUCT DEVELOPMENT	
CODE	**18FNPC312**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Identify food hazards to ensure food safety	K6
CO-2	Classify different stages and interpret government regulations governing quality control.	K6
CO-3	Analyze the concept of patentability and various aspects of patent laws in India.	K4&K5
CO-4	Develop ideas for creating different types of new foods and adapt various strategies for evaluation of newly developed foods	K4
CO-5	Describe food specifications of different food products	K3&K4

Course Title	QUALITY CONTROL	
CODE	**18FNPCP02**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Detect adulteration and contamination in foods	K5
CO-2	Acquire the techniques to assess the quality of food	K3
CO-3	Apply the techniques for research in Food Science and processing	K3

Course Title	FOOD PROCESSING AND PACKAGING	
CODE	**18FNPC413**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Explain the basic concepts of food processing and its impact on food product quality	K5
CO-2	Analyze various unit operations and principles on food processing	K4
CO-3	Develops ability to construct and interpret various processing methods in various types of foods	K6 & K5
CO-4	Discuss the role of packaging in different product preservation	K6
CO-5	Elaborates the role of labelling in food packaging and its regulations	K6

Course Title	CLINICAL NUTRITION TECHNIQUES	
CODE	**18FNPCP02**	
CO No.	**Course Outcomes**	**Knowledge Level**
CO-1	Prepare the reagents needed for the estimation of various components in blood and urine	K5
CO-2	Estimate the parameters using appropriate techniques	K6
CO-3	Apply the techniques for research in biochemical assessment	K3