

Department of Nutrition & Dietetics

Programme: B.Sc., Nutrition & Dietetics

PO No.	Programme Outcomes Upon completion of the B.Sc. Degree Programme, the graduate will be able to
PO-1	emerge with competency in the subject of Nutrition and Dietetics and apply the knowledge to cater to the needs of Society / Employer / Institution / Own Business / Enterprise
PO-2	imbibe analytical/ critical/ logical/ innovative thinking skills in the field of Food Processing, Community Nutrition and Clinical Nutrition.
PO-3	acquire distinct traits and ethics with high professionalism and to gain a broader insight into the domain concerned, the nation and themselves.
PO-4	inculcate scientific temperament through the Projects, Internship and Case study which strengthens the knowledge, skills and research procedures.
PO-5	articulate academic understanding, entrepreneurship, community role and skill development by practicing in the state-of-the-art nutrition laboratory and attain empowerment through food industry, health clinics and public sectors.

PSO No.	Programme Specific Outcomes Upon completion of these courses the student would
PSO-1	develops a holistic and multidimensional understanding of the basic aspects of Food science, Nutrition concerns in different stages of life cycle and Food processing and Preservation for ensuring food availability.
PSO-2	provides a planned Professional experience for offering scientific opinion on modern Nutrition and Dietetics related issues and controversies.
PSO-3	helps to transpire as a Diet Counsellor, Nutrition/ Health communicator for creating awareness in the society through various Communication Strategies in Nutrition Education emphasizing Information Technology.
PSO-4	applies the analytical principles of Food and Nutrients in Food Safety and Security and Public Health strategies to overwhelm current spectrum of malnutrition.
PSO-5	strengthens the Competent Graduates, successful Entrepreneurs and energized Professionals to take up careers in academics, Health Care Centres and Food Processing Industries.

Course Title	HUMAN PHYSIOLOGY	
CODE	18NDUC101	
CO No.	Course Outcomes	Knowledge Level
CO-1	Outline the anatomy and functions of human organ system.	K2
CO-2	Acquire knowledge on composition, functions and components of blood.	K3
CO-3	Understand the structure and mechanisms of action of endocrine glands.	K2
CO-4	Extend the understanding of structure and functions of male and female reproductive system with the hormonal control.	K2
CO-5	Interpret the structure, mechanism and regulation of action of muscles and nervous system.	K2

Course Title	FOOD SCIENCE	
CODE	18NDUC102	
CO No.	Course Outcomes	Knowledge Level
CO-1	Classify the foods, food groups and relate its functions.	K ₂
CO-2	List the objectives and different methods of cooking.	K ₁
CO-3	Interpret the structure, composition and nutritive value of different foods.	K ₂
CO-4	Identify the effect of heat and changes that occurs during cooking.	K ₃
CO-5	Apply the basic principles of cookery namely crystallization of sugars, gelatinization and dextrinization of starches, germination of pulses, browning reaction, foam formation in egg and tenderization of meat.	K ₃

Course Title	Practical I - FOOD SCIENCE	
CODE	18NDUCP01	
CO No.	Course Outcomes	Knowledge Level
CO-1	Learn the nutritive value and grouping of foods.	K ₁
CO-2	Acquire knowledge on the measuring of raw ingredients and the percentage of edible portion.	K ₃
CO-3	Make use of all the foods in Basic Food Group system for the preparation of various recipes.	K ₃
CO-4	Apply the scientific principles through Experimental Cookery.	K ₃
CO-5	Develop value added products since cooking should become a passion for a food science student.	K ₃

Course Title	PRINCIPLES OF NUTRITION	
CODE	18NDUC203	
CO No.	Course Outcomes	Knowledge Level
CO-1	Find out the energy value of food and energy requirements of the body.	K ₁
CO-2	Outline the classification and describe the functions, sources and requirements of macronutrients.	K ₂
CO-3	Acquire knowledge on digestion, absorption, utilization of macronutrients and their effect of deficiency.	K ₃
CO-4	Understand the functions, sources, requirements and deficiency disorders of vitamins and minerals.	K ₂
CO-5	Apply knowledge on water and electrolyte balance.	K ₃

Course Title	FAMILY MEAL MANAGEMENT	
CODE	18NDUC204	
CO No.	Course Outcomes	Knowledge Level
CO-1	Define the nutritional requirements (RDA) for all age groups.	K ₁
CO-2	Construct menu plan for different age groups.	K ₃
CO-3	Utilize the diet plan for special conditions in consideration with physiological changes.	K ₃
CO-4	Relate breast feeding and its importance with weaning and supplementary foods.	K ₂
CO-5	Outline the nutritional importance for vulnerable groups through balanced diets.	K ₂

Course Title	Practical II - FAMILY MEAL MANAGEMENT	
CODE	18NDUCP02	
CO No.	Course Outcomes	Knowledge Level
CO-1	Learn how to apply food facts and principles, communication techniques and meal management strategies to improve the nutritional status of individuals.	K ₁
CO-2	Plan and prepare nutritious and delicious meals for different age groups with cost calculation.	K ₃
CO-3	Demonstrate the nutritive value of the prepared menu and compare with the RDA.	K ₂
CO-4	Solve the problems of malnutrition by preparing weaning and supplementary foods.	K ₃
CO-5	Choose the locally available low cost foods in menu planning based on food preferences.	K ₁

Course Title	FOOD MICROBIOLOGY	
CODE	18NDUC507	
CO No.	Course Outcomes	Knowledge Level
CO-1	Aware of the basic principle of Microbiology	K1
CO-2	Apply the basic principles of sanitation in food industries,	K2
CO-3	Understand the importance of personal hygiene for food and service personnel.	K2& K3
CO-4	Interpret diseases caused by various microorganisms	K3
CO-5	Examine the importance of food safety and to apply in future research.	K3

Course Title	Food Production and Agriculture	
CODE	18NDUC508	
CO No.	Course Outcomes	Knowledge Level
CO-1	Exemplify the information on the productivity of agricultural systems	K2
CO-2	Infer knowledge on the importance of Agriculture in the economy of a Nation	K2
CO-3	Experiment the skills in exploring organic farming	K3
CO-4	Develop innovative, complementary Agriculture Monitoring Systems	K3
CO-5	Integrate the new advances in elementary knowledge on insects and pests control	K3

Course Title	PUBLIC HEALTH NUTRITION	
CODE	18NDUC509	
CO No.	Course Outcomes	Knowledge Level
CO-1	Develop knowledge on Vital statistics, Causes and consequences of malnutrition.	K1
CO-2	Interpret diseases using various nutritional assessments	K2
CO-3	Examine the National level nutrition Intervention programme	K2& K3
CO-4	Identify the National agencies involved in improving the nutritional status of the Community	K3
CO-5	Implement Nutrition education for prevention of nutrition related problems	K3

Course Title	FOOD BIOTECHNOLOGY	
CODE	18NDUC510	
CO No.	Course Outcomes	Knowledge Level
CO-1	Gain knowledge on fundamentals in food biotechnology	K ₂
CO-2	Comprehend and apply the concept of biotechnology in various fields.	K ₃
CO-3	Understand the role of enzymes and apply enzyme technology in contemporary needs.	K ₃
CO-4	Apply the applications of recombinant DNA technology in Production of therapeutic proteins.	K ₁
CO-5	Identify the importance of microbes in food industries.	K ₂

Course Title	FOOD PRESERVATION	
CODE	18NDUCP05	
CO No.	Course Outcomes	Knowledge Level
CO-1	Understand underlying principles in food preservation techniques.	K ₂
CO-2	Develop appropriate skill set required for problem identification, technology development and implementation.	K ₃
CO-3	Understand the role and action of preservation techniques in product shelf life and nutritional consequences.	K ₂
CO-4	Identify issues and regulations in food quality.	K ₂
CO-5	Apply and analyse novel food preservation techniques.	K ₃

Course Title	BAKERY SCIENCE	
CODE	18NDUE501	
CO No.	Course Outcomes	Knowledge Level
CO-1	Understand the basic principles and ingredients of Baking	K ₁
CO-2	Provide knowledge on Yeast raised Bakery Products	K ₂
CO-3	Figure out the principles and methods of preparing pastry products	K ₂ & K ₃
CO-4	Infer the methods of cake making along with internal and external characteristics	K ₃
CO-5	Identify the equipments for setting up a Bakery Unit as a entrepreneurial approach	K ₃

Course Title	FOOD PROCESSING AND PRESERVATION	
CODE	18NDUS503	
CO No.	Course Outcomes	Knowledge Level
CO-1	Understand the principles of food processing	K ₁
CO-2	Understand the effective ways to process and store agricultural crops.	K ₂
CO-3	Acquire knowledge on various process, equipments and applications.	K ₃
CO-4	Analyse and apply novel techniques in food processing.	K ₂
CO-5	Acquire knowledge on advanced techniques expected in commercial industries.	K ₃

Course Title	Computer Concepts in Nutrition	
CODE	18NDUC611	
CO No.	Course Outcomes	Knowledge Level
CO-1	Describe the computer concepts, historical developments and Operating system	K ₂
CO-2	Acquire knowledge on basic operations on a windows	K ₃
CO-3	Apply skills in exploring windows applications in development of documents, data analysis in spread sheet and power point presentation.	K ₃
CO-4	Construct queries, forms, reports, macros and charts	K ₃
CO-5	Interpret the new advances in IOT and e-learning techniques	K ₃

Course Title	NUTRITION AND PHYSICAL FITNESS	
CODE	18NDUC612	
CO No.	Course Outcomes	Knowledge Level
CO-1	Illustrate the components of fitness and Wellness with its principles	K1
CO-2	Provide knowledge on principles and methods of physical training	K2
CO-3	Figure out the importance of physical activity and various physiological assessment for fitness	K1 & K2
CO-4	Infer the importance of nutrition in Sports and Dietary management for athletes	K3
CO-5	Describe the various ergogenic aids and Diet related problems of sports persons	K3

Course Title	CASE STUDY AND VIVA – VOCE	
CODE	18NDUCV01	
CO No.	Course Outcomes	Knowledge Level
CO-1	Accomplish knowledge and depth information on various cases for different age, sex and physiological groups.	K2
CO-2	Apply skills in experiments and framing new theories to the pre-existing theories.	K3
CO-3	Construct the observations of cases into useable data and simplifies the complex concepts	K3
CO-4	Understand the science behind an experiment or case.	K2
CO-5	Develop innovative advances and delves a solution for a problem through investigation	K3

Course Title	INTERNSHIP AND VIVA – VOCE	
CODE	18NDUTV02	
CO No.	Course Outcomes	Knowledge Level
CO-1	Acquire skills and knowledge in the fields of medical and health science	K2
CO-2	Apply skills in exploring work experiences that go together with classroom learning	K3
CO-3	Constructs the closed direction or mentoring by a specialized expert	K3
CO-4	Discover the new advances in Clinical and Food Processing, Preservation techniques	K3
CO-5	Develop intern's individual through challenging occupational coursework.	K3

Course Title	FOOD ANALYSIS & QUALITY CONTROL	
CODE	18NDUCP06	
CO No.	Course Outcomes	Knowledge Level
CO-1	Knowledge on chemical properties of food.	K ₁
CO-2	Identify and select suitable analytical technique for a problem.	K ₃
CO-3	Describe the appropriate methods to check food quality.	K ₂
CO-4	Comprehend the implications and toxic effects of adulterants.	K ₂
CO-5	Integrate and apply knowledge to solve a real industry problem	K ₃

Course Title	FOOD QUALITY CONTROL	
CODE	18NDUE602	
CO No.	Course Outcomes	Knowledge Level
CO-1	Protect Public Health by reducing the risk of food borne illness.	K1
CO-2	Protect consumers from in wholesome or adulterated food.	K2
CO-3	Set Standards to meet the specifications which ensure customer needs are met.	K2 & K3
CO-4	Help Companies meet consumer demands for better products, through Food laws	K3
CO-5	Understand the quality Evaluation of Foods	K3

Course Title	ELECTIVE III – PROJECT AND VIVA - VOCE (CLINICAL / FOOD PROCESSING / COMMUNITY ORIENTED PROJECTS)	
CODE	18NDUE6PV	
CO No.	Course Outcomes	Knowledge Level
CO-1	Paraphrase the information relating to current research, novel theories and technologies	K2
CO-2	Access to high quality <i>research</i> work in the Public health nutrition	K3
CO-3	Predicts the effects of dietary interventions on biological or health-related endpoints in human participants.	K2
CO-4	Relates the role of food science in human nutrition	K3
CO-5	Evaluates the nutrient components of formulated diets	K4

Course Title	FOOD PRODUCT DEVELOPMENT	
CODE	18NDUS604	
CO No.	Course Outcomes	Knowledge Level
CO-1	Prepare a prototype for a new food product	K ₁
CO-2	Apply the principles of quality assurance, food safety and GMP to a food product design.	K ₃
CO-3	Demonstrate an understanding of the functionality of packaging in new product development.	K ₃
CO-4	Comprehend elements of a HACCP-based food safety program that is applicable to the production of a new food product.	K ₂
CO-5	Identify challenges involved in the development of a new food product to protect and preserve quality to ensure safety.	K ₃