



YENEPOYA

(DEEMED TO BE UNIVERSITY)

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Accredited by NAAC with 'A' Grade

YENEPOYA INSTITUTE OF ARTS, SCIENCE, COMMERCE AND MANAGEMENT

PROGRAM OUTCOMES AND COURSE OUTCOMES

UNDERGRADUATE PROGRAM

BACHELOR OF SCIENCE FOOD SCIENCE AND NUTRITION

ATTESTED

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Karnataka

Program Outcomes
Undergraduate Program
Bachelor of Science in Food Science & Nutrition

(K=Knowledge, S=Skill, A=Attitude)

Program Outcomes(POs)		
	Name of PO	Description
BSc (Food Science & Nutrition)	PO 1	Acquire knowledge and develop aptitude in Food Science and Nutrition intended for potential career opportunities.(K , A)
	PO 2	Build self-empowerment in food Science and Nutrition and develop effective communication skills sufficient for entry in pre professional practice.(S,A)
	PO 3	Apply skills by planning, implementing and evaluating diet to the community in the current scenario. (K,S)
	PO 4	To enhance employ ability and to be able to take up challenging job assignments.(K,S,A)
	PO 5	Interpret and utilize nutrition techniques in developing novel products to improve the health status of society and promote entrepreneurship.(K,S)
	PO 6	Develop professional attributes and portfolio in Food Science and Nutrition that are adopted to serve in diverse professional and community organizations (K,S,A)
	PO 7	Comprehend the association between nutrients with physiology, diseases and dietary solutions.(K,S)
	PO 8	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of health care management. (K,S,A)
	PO 9	Apply ethical principles and commit to professional ethics and responsibilities and norms of the nutrition and health care practice.(K,S,A)
	PO 10	Design solutions for health and nutritional problems and design products that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal and environmental considerations.(K,S,A)

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COURSE OUTCOMES

Undergraduate Program

Bachelor of Science Food Science & Nutrition

Course Outcomes (COs).		
Semester I	Name of CO	Description
The Basic Food Science – I	CO 1	To know the history of nutrition and gain idea on energy and carbohydrates.
	CO 2	Understand the role of food and nutrients in health and disease prevention
	CO 3	Evaluation nutrition information based on scientific reasoning for clinical and community application
Human Physiology-I	CO 1	To review the structure and functions of cell organelles tissue and gain knowledge on blood and its components and understand about sense organs
	CO 2	Explain the basic knowledge of the normal functioning of the organ system of human body.
	CO 3	Apply this knowledge to the understanding of healthy lifestyle and pathophysiology of diseases
	CO 4	To understand the functioning of organ system and their relation with nutritional Requirements
Environmental studies	CO 1	Understand cor concepts and methods from ecological and physical sciences and their application in environmental problem - solving.
	CO 2	Appreciate the ethical , cross- cultural, and historical contest of environmental issues and the links between human and natural systems
	CO 3	Appreciate that one can apply systems concepts and methodologies to analyse and understand interactions between social and environmental processes.
	CO 4	Reflect critically bout their rules and identities as citizens , consumers and environmental actors in a complex interconnected world
Management Theory and Practices	CO 1	Students learn about Hindi letters, use of words , framing sentences and try to make use of correct Hindi language
	CO 2	Students learn the official and unofficial usage of hindi language orally
	CO 3	To acquire skills in reading , writing , comprehension and communication
	CO 4	Students also acquire the skills of Hindi typing
Semester 2		
The Basic Food Science -II	CO 1	Understand concepts of objects and their significance in real world
	CO 2	To analyze conceptualize, implement and evaluate the functions, metabolism, requirements and effects of

		deficiency of nutrients.
	CO 3	To apply knowledge on functions, distribution of water and regulation of water balance and acid base and electrolyte balance.
	CO 4	To understand the importance and functioning of Vitamin and Minerals in diet.
Human Physiology -II	CO 1	Understand about the reproductive organs and menstrual cycle, spermatogenesis, oogenesis. brief idea of pregnancy, parturition, lactation and menopause.
	CO 2	Obtain a better understanding of excretory system, Structure and functioning skin and Kidney ,regulation of body temperature, physiology of urine of formation
	CO 3	Obtain a better understanding of central nervous system – sympathetic , parasympathetic nervous system , anatomy and functions of cerebrum, cerebellum ,hypothalamus and neuron
	CO 4	Obtain a better understanding of endocrine system: structure and functioning of different endocrine glands
English communication	CO 1	Ability to understand and improve the communication skill.
	CO 2	To know the barriers of communication.
	CO 3	Ability enhances reading and writing skills.
	CO 4	Ability to improve public speaking and presentation skills
Hindi	CO 1	Students learn about Hindi letters, use of words , framing sentences and try to make use of correct Hindi language
	CO 2	Students learn the official and unofficial usage of hindi language orally
	CO 3	To acquire skills in reading , writing , comprehension and communication
	CO 4	Students also acquire the skills of Hindi typing
Managerial Economics	CO 1	To enable the students to use microeconomics principles and quantitative tools in making sound managerial decisions
	CO 2	To present business topics using graphs, equation and numerical insight
	CO 3	Develop the conceptual foundations and analytical methods used in micro economics
	CO 4	Familiarize the students with the basic consumer behaviour, behaviour of firms and market equilibrium
Kannada	CO 1	Students learn about Kannada letters, use of words , framing sentences and try to make use of correct Kannada language
	CO 2	Students learn the official and unofficial usage of Kannada language orally
	CO 3	To acquire skills in reading , writing , comprehension and communication
	CO 4	Students also acquire the skills of Kannada typing


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Semester 3		
Human Nutrition	CO 1	Explain Fundamentals of Nutrition and identify classes of nutrients and their characteristics
	CO 2	Identify the clinical implications of malnutrition, both under- and over-nutrition
	CO 3	Outline the ABCDEs of nutrition assessment; anthropometric, biochemical, clinical, dietary, and ecological
	CO 4	Evaluate nutritional status as per standards and recommend corrective measures to improve the nutritional health of individuals and communities
	CO 5	Explain the methodology and importance of growth monitoring in promotion of health
	CO 6	Categorize macro and micro nutrients as per their functions and properties
Community Nutrition	CO 1	To study and assess the nutritional status of the family
	CO 2	To ascertain the physical and social health problems of the family.
	CO 3	To illustrate how social, economic, occupational, emotional, hereditary and other environment factors influence the nutritional and health status of the family with special reference to diet and living conditions
	CO 4	To demonstrate how morbidity or poor nutritional status in one individual affects other members of the family and the community
Food Commodities	CO 1	Understand the composition, structure and storage of food grains
	CO 2	Understand the technology of paddy processing and its products
	CO 3	Discuss the factors affecting the shelf life of fruits and vegetables
	CO 4	Manufacture and preserve different processed products of fruits, vegetables, spices and plantation products
Sports Nutrition	CO 1	The objective is to introduce the weight management and nutrition for the athletes and also assess body composition and fitness of sports individuals.
	CO 2	Develop a healthful weight management program for individuals.
	CO 3	Understand the components of exercise and fitness and prescribe the exercise regime to athletes.
	CO 4	Know the types of energy system involved in providing energy for different kind of sports.
Food service management	CO 1	Recognize the systems approach to the study of foodservice systems.
	CO 2	Identify types and characteristics of foodservice production systems as they relate to flow of food.
	CO 3	Apply principles of the microbiological aspects of food safety, sanitation and physical safety to foodservice operations.

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	CO 4	Differentiate between the major systems of service and delivery.
Business mathematics	CO1	Students should be able to define basic terms in the areas of business calculus and financial mathematics
	CO2	To learn the basic concepts of limits and differentiation and use them to pose, solve and interpret application problems in business
	CO3	To get acquired knowledge and skills with practical problems in economic practise
Semester 4		
Diet Therapy	CO 1	Utilize knowledge from the physical and biological sciences as a basis for understanding the role of food and nutrients in health and disease processes.
	CO 2	Provide nutrition counselling and education to individuals, groups, and communities throughout the lifespan using a variety of communication strategies.
	CO 3	Evaluate nutrition information based on scientific reasoning for clinical, community, and food service application.
	CO 4	Apply technical skills, knowledge of health behaviour, clinical judgment, and decision-making skills when assessing and evaluating the nutritional status of individuals and communities and their response to nutrition intervention.
	CO 5	Practice state-of-the-art nutrition care in collaboration with other health-care providers in interdisciplinary settings within the bounds of ethical, legal, and professional practice standards.
	CO 6	Provide culturally competent nutrition services for individuals and communities.
	CO 7	Applies an evidence based approach to dietetics services
Nutritional Biochemistry - I	CO 1	Summarize the fundamental aspects of enzymology and clinical application wherein regulation of enzymatic activity is altered
	CO 2	Describe digestion and assimilation of nutrients and consequences of malnutrition
	CO 3	Integrate the various aspects of metabolism and their regulatory pathways
	CO 4	Explain the biochemical basis of inherited disorders with their associated sequelae
	CO 5	Outline the principles of the Pharmacokinetic and Pharmacodynamic actions of drugs
	CO 6	Classification of drug interactions with examples
	CO 7	Selected drug food interactions due to modulation of pharmacokinetic and pharmacodynamic principles
Diet therapy -II	CO 1	Utilize knowledge from the physical and biological sciences as a basis for understanding the role of food and nutrients in health and disease processes.
	CO 2	Provide nutrition counselling and education to individuals, groups, and communities throughout the lifespan using a variety of communication strategies.


	CO 3	Evaluate nutrition information based on scientific reasoning for clinical, community, and food service application.
	CO 4	Apply technical skills, knowledge of health behaviour, clinical judgment, and decision-making skills when assessing and evaluating the nutritional status of individuals and communities and their response to nutrition intervention.
Nutrition and health education	CO 1	Become familiar with basic concepts in nutritional epidemiology, focusing on methods used in the study of nutrition-disease associations
	CO 2	Understand the strengths and limitations of different dietary and nutritional assessment methods.
	CO 3	Become familiar with current trends in nutritional epidemiology
Bakery Science	CO 1	Understand the application of microwave and radio frequency wave technology in food processing.
	CO 2	To study about common bakery terms
	CO 3	To understand about the scope of bakery science
	CO 4	To familiarise with the raw materials required for bread and cake making
	CO 5	To know the preparation of basic cookies, biscuits and pastries
Summer internship project	CO 1	To explore career alternatives prior to graduation.
	CO 2	To Integrate theory and practice.
	CO 3	To develop work habits and attitudes necessary for job success.
	CO 4	To Develop communication, interpersonal and other critical skills in the job interview process.
Semester 5		
Nutritional Biochemistry -II	CO 1	Summarize the fundamental aspects of enzymology and clinical application wherein regulation of enzymatic activity is altered
	CO 2	Describe digestion and assimilation of nutrients and consequences of malnutrition
	CO 3	Integrate the various aspects of metabolism and their regulatory pathways
	CO 4	Explain the biochemical basis of inherited disorders with their associated sequelae
Food Microbiology	CO 1	Critically evaluate the nature and impact of food borne diseases on the food industry & public health
	CO 2	Critically evaluate role of microorganisms in health and disease
	CO 3	Interpret the use of microbiological data within HACCP
	CO 4	Demonstrate knowledge sufficient to identify food safety hazards & to take preventive measures
Public	CO 1	Become familiar with the concept of public health nutrition and health care of the community.

Health	CO 2	Understand the causes, consequences and preventive strategies for nutritional problems in the community.
	CO 3	Acquire practical knowledge about the concept of food and nutrition security and the various programmes for improving food and nutrition security.
	CO 4	To develop nutrition education program for vulnerable groups and planning nutritious dishes for micronutrient deficiencies.
Mushroom Culture	CO 1	Identify edible types of mushroom
	CO 2	Gain the knowledge of cultivation of different types of edible mushrooms and spawn production
	CO 3	Manage the diseases and pests of mushrooms
	CO 4	Learn a means of self-employment and income generation
Diet Counselling and Patient care	CO 1	Understand and implement Nutrition Care Process and Nutrition Care Links
	CO 2	Understand and implement screening and assessment of patients
	CO 3	Apply an evidence based approach to dietetics services
	CO 4	Communicate appropriately with individuals, groups, organizations and communities from various cultural, socioeconomic, organizational and professional backgrounds and counsel them effectively
Geriatric Nutrition	CO 1	To understand the special nutritional requirements of children
	CO 2	To provide comprehensive and essentially practical guidance on all aspects of geriatric nutrition - from the promotion of nutrition/health to the management of deficiency/diseases
	CO 3	To develop a knowledge base in key areas of geriatric nutrition (such as physiology of aging; theories of aging; clinical, psychological and social challenges and health concerns of elderly)
	CO 4	Comprehend and analyze the causes, consequences and preventive strategies for geriatric nutritional problems
Semester 6		
Food preservation and safety regulation	CO 1	To understand fundamental principles of food preservation
	CO 2	To understand the principle of thermal processing and applying high temperature processing in food industry
	CO 3	To understand the concept of water activity and preservation by reduction of water removal
	CO 4	To understand food standards and food safety regulations
Project cum internship	CO 1	Use appropriate and relevant experimental and/or theoretical methods & techniques in practise
	CO 2	Acquire the skills required by a dietician in applying evidence based nutritional management practice and implementation of Nutrition care process to both in-patients and out-patients.

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	CO 3	Improve communication skills in terms of counselling patients, presentation of case studies to experts and corporate counselling/ education programme
	CO 4	Understand and monitor the flow of Food and beverages across the wards based on specifications
Theories of human development	CO 1	Demonstrate an understanding of the biological, psychological, social and cultural influences of lifespan human development
	CO 2	Demonstrate an understanding of how gender, ethnicity, class, historical period, and social location relate to the life course experience
	CO 3	Critically evaluate research relevant to human development as well as popular notions of human nature
	CO 4	Understand and work effectively with a diversity of individuals and communities
Non- formal Adult and lifelong educations	CO 1	To understand about non – formal education and difference between formal and non formal education
	CO 2	To understand the significance of non – formal education in India new education policy
	CO 3	To learn the definition, meaning and concept of lifelong education
	CO 4	To study the methods and material for non- formal /adult/lifelong education
Childhood disability and social action	CO 1	Understanding disability and inclusion
	CO 2	Studying different types of disability
	CO 3	Understanding physical disabilities, intellectual disabilities and sensory disabilities
	CO 4	To understand the association of disability and society
Child rights and gender justice	CO 1	To promote gender and child as a priority concern in development planning and implementation.
	CO 2	Undertaking studies related to livelihoods, women empowerment and various other areas through the gender lens. Improving access to justice for children in areas of juvenile justice, child labour, gender justice, education and trafficking.
	CO 3	Strengthening law, policy and governance to improve gender and child rights situation.
	CO 4	To strengthen vulnerable groups

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