

2.6.1 Programs Outcomes and Course Outcomes

B.Sc. Home Science-

B.Sc. Home Science program includes specializations in Nutrition and Dietetics, Human Development, Interior Space Design, Textile Science and Apparel Design, Human Ecology and Consumer Services and Food Science and Quality Control.

The outcomes common to all are:

- To have a multidisciplinary approach in curriculum planning for the development of professional skills.
- To encourage and enhance students' entrepreneurial capabilities.
- To reinforce social values and encourage community outreach.
- To develop scientific approach and inculcate research values.

Program code	Program Name	Program Outcomes	Course code	Course Name
5	B.Sc. (Home Science) <ul style="list-style-type: none"> • Nutrition and Dietetics Specialization • Human Development • Interior Space Design • Textile Science and Apparel Design 	Core Subjects common for all specializations	9101	English I (Foundation Course) CO 1: To enable the student to read with fluency while simultaneously comprehending passages in English CO 2: To equip the student with skills to participate independently in conversations and discussions conducted in English CO 3: To develop written communication skills for everyday and professional communication CO 4: To develop the student's creativity so that she may express her ideas descriptively and creatively.

	<ul style="list-style-type: none"> • Human Ecology and Family Science 			
			9102	Applied Science CO 1: To know the importance of science in daily life CO2: To develop analytical attitude. CO 3: To develop scientific way of thinking CO 4: To impart knowledge to apply.
			9103	Design and Aesthetics CO 1: To enable the students to understand the elements and principles of design. CO 2: To enable the students to develop the skills to appreciate the aesthetics of art and design. CO 3: To develop in the students an understanding of the application of art principles in various areas of Home Science. CO 4: To promote group learning in the study of arts and crafts.
			9104	Life Span Development CO 1: To become acquainted with the development stage from birth to old age. CO 2: To develop awareness of important aspects of development during the whole life span. CO 3: To understand the problems and hazards faced by an individual throughout the life span.
			9105	Environment Studies CO 1: To make students aware about the importance, current situation of natural resources and the need to conserve them.

				<p>CO 2: To give information about concept, types of various ecosystems</p> <p>CO 3: To make aware about biodiversity, and need of conservation.</p> <p>CO 4: To create awareness about social issues and the solutions to solve them</p>
			9201	<p>English II</p> <p>CO 1: Prepare and deliver an effective presentation</p> <p>CO 2: Write an effective resume</p> <p>CO 3: Appear for an interview process with confidence</p> <p>CO 4: Develop skills of reading literary narratives with understanding and appreciation</p>
			9202	<p>Human Physiology</p> <p>CO 1: The students will understand the basic structure and functions of the human body</p> <p>CO 2: Student will be acquainted with common diseases/disorders of each system</p>
			9203	<p>Textile Science and Apparel Design (Theory +Practical)</p> <p>CO 1: Students gain knowledge of nomenclature and classification of Fibers, yarns, and fabrics in pure and blended form.</p> <p>CO 2: Students learn about general principles of clothing construction, selection, use and scope</p> <p>CO 3: Makes the students wise and responsible consumer with good values.</p> <p>CO 4: Students to get knowledge and information related to legislation, labeling, and standards to enhance the consumer's understanding of textiles and clothing</p>

				<p>CO 5: Make students aware of the use and care of sewing machine.</p> <p>CO 6: Learn the drafting, placement and cutting of basic garments</p> <p>CO 7: Develop skill in stitching the garments with good finishing in stipulated time.</p> <p>CO 8: Generate awareness regarding different fabrics available in the market.</p>
			9204	<p>Fundamentals of Food Science and Nutrition (Theory +Practical)</p> <p>CO 1: Students understand the inter-relationship between food, nutrition, and health</p> <p>CO 2: Students know the methods and principles involved in cooking.</p> <p>CO 3: Students understand the knowledge of food science and the changes occurring during food preparation</p> <p>CO 4: Students know the methods and principles involved in cooking.</p> <p>CO 5: Students learn to relate foods with their nutrient content</p> <p>CO 6: Students relate weight and measures of raw foods with cooked amounts and associate them with serving size.</p> <p>CO 7: Students apply the knowledge of food science and observe the changes occurring during food preparation</p> <p>CO 8: Students list rich food sources of various nutrients and plan and prepare recipes</p>
			9205	<p>Extension and Communication</p> <p>CO 1: To develop understanding about the concept of Extension Education</p>

				<p>CO 2: To comprehend the role and importance of communication in Extension.</p> <p>CO 3: To be able to understand the needs of the community by using enquiry techniques.</p> <p>CO 4: To be able to plan, prepare and use the different communication methods.</p>
			9301	<p>Nutrition For Life Span</p> <p>CO 1: Students understand the physiological changes, special needs and health concerns of people at different stages of life</p> <p>CO 2: Students understand the importance of nutrition to physical, psychological growth and development and ageing.</p>
			9302	<p>Consumer Studies</p> <p>CO 1: The overall goal of consumer studies is to create awareness about consumer problems in the market.</p> <p>CO 2: To impart knowledge regarding the role of consumer guides and agencies.</p> <p>CO 3: To enable the students to develop good buymanship skills in the selection of goods and services in the market.</p> <p>CO 4: To help the students to realize their rights and responsibilities as informed consumers</p>
			9303	<p>Family Dynamics</p> <p>CO 1: To sensitize the student towards marriage and family life.</p> <p>CO 2: To understand the traditional and changing norms of the institution of the family with reference to its social environment</p>

				<p>CO 3: To get familiar with the concept of marriage and the areas of adjustments within the family</p> <p>CO 4: To becomes aware about dynamics of family interactions and developmental tasks through family life</p> <p>CO 5: To becomes aware of problems in families and ways of coping</p>
			9304	<p>Media skill Development</p> <p>CO 1: To develop awareness about various forms of mass media</p> <p>CO 2: To analyze the role of media in educating the masses</p> <p>CO 3: To acquire the skills to design messages for communication.</p> <p>CO 4: To develop skills in preparing and presentation of the different forms of media</p>
			9305	<p>Fabric Ornamentation and Accessory Design</p> <p>CO 1: To familiarize the student with the role and application of various types of accessories used in Fashion Business</p> <p>CO 2: To get acquainted with various materials used as accessories.</p> <p>CO 3: To learn to mix match different materials and accessories to suit.</p>
	Nutrition and Dietetics Specialization	The course enables the students to: PO1: learn various aspects of Foods	741	Advance Chemistry (Theory +Practical)
				CO 1: To lay the foundation of biological chemistry

		<p>PO2: develop skills in Food Analysis and assessment of Food Quality</p> <p>PO3: have knowledge of various manufacturing and packaging equipment</p> <p>PO4: comprehend the basic principles of industrial management</p> <p>PO5: develop innovative Food Products</p>		<p>CO2: To Give insights about the chemical reactions that occur in biological systems.</p> <p>CO 3: To impart knowledge about the structures of the principle components present in biological systems</p> <p>CO 4: To impart practical training in chemistry</p> <p>CO5: To develop understanding of the fundamentals of chemical reactions through hands on training.</p> <p>CO6: Impart the necessary knowledge in identification of important compounds in biological systems.</p>
			742	<p>Food Microbiology (Theory +Practical)</p> <p>CO 1: To understand the nature and the role of microorganisms in food.</p> <p>CO 2: To have a knowledge of the basic principles of food sanitation and safety</p> <p>CO 3: To acquire a perspective of the importance of microorganisms in environmental microbiology.</p> <p>CO 4: To understand the principles, working and use of various equipment's</p> <p>CO 5: To have knowledge of the underlying principles in practical food microbiology</p> <p>CO 6: To develop awareness about the different techniques used for isolation and primary identification of microorganisms.</p>
			743	<p>Human Nutrition I</p> <p>CO 1: To gain insight in to the physiological process of digestion, absorption of nutrients.</p>

				<p>CO 2: To acquire knowledge about the functions of nutrients</p> <p>CO 3: To understand the implications of deficiencies and excess of the nutrients</p> <p>CO 4: To describe the functions of water in the body and how electrolytes and fluid balance are maintained in the human body.</p>
			244	<p>Medical Nutrition Therapy I (Theory + Practical)</p> <p>CO 1: To understand the role of diet in health and disease.</p> <p>CO 2: To know the etiology of disease</p> <p>CO 3: To relate the physiological changes associated with specific diseases.</p> <p>CO 4: To relate the physiological changes associated with specific diseases.</p> <p>CO 5: To recommend and provide appropriate nutrition care for prevention of various diseases</p> <p>CO 6: To apply principles of diet therapy in preparing foods for specific diseases conditions.</p> <p>CO 7: To develop skills in planning and preparation of foods, for specific disease conditions keeping in mind cost, seasonal availability and psychosocial factors.</p>
			245	<p>Institutional Food service Management</p> <p>CO 1: To learn different types of food service institutes</p> <p>CO 2: To know various types of food service in different institutes</p> <p>CO 3: To plan menu for institutes</p>

				<p>CO 4: To understand the principles of plant and equipment management</p> <p>CO 5: To understand the principles of personnel management</p> <p>CO 6: To develop skills in quantity food production and service</p> <p>CO 7: To become aware about the current trends of food market</p> <p>CO 8: To understand the concept of standardization, cost control, recipe writing and quality control</p>
			253	<p>Medical Nutrition Therapy II</p> <p>CO 1: To understand the etiology, physiological and metabolic changes in diseases.</p> <p>CO 2: To learn the impact of various diseases on nutritional status and nutrient needs</p> <p>CO 3: To recommend diets for prevention and treatment of diseases.</p>
			254	<p>Dietetic Applications</p> <p>CO 1: To understand the modifications in nutrient and dietary requirements for various diseases</p> <p>CO 2: To develop skills and techniques in the planning and preparation of therapeutic diets for various diseases.</p> <p>CO 3: To learn the use of Exchange list.</p>
			255	<p>Recent Advances in Nutrition and Dietetics (Seminar) and Women's Issues (ND)</p> <p>CO 1: To be aware of areas of research in the field.</p> <p>CO 2: To enrich themselves with recent advances.</p> <p>CO 3: To develop competence in reviewing the research papers.</p>

				CO 4: To develop competence in presentations.
			751	<p>Biochemistry (ND) (Theory + Practical)</p> <p>CO 1: To know the fundamentals of metabolic processes / pathways occurring in the body.</p> <p>CO 2: To understand the significance of various metabolic processes / pathways.</p> <p>CO 3: To understand the integration of these metabolic processes.</p> <p>CO 4: To develop the ability to apply the significance of these processes to different physiological / metabolic conditions.</p> <p>CO 5: To learn the principles and procedures of biochemical analysis of blood and urine.</p> <p>CO 6: To develop ability to interpret the results of the estimations of the common Constituents of biological fluids.</p>
			752	<p>Human Nutrition II (ND)</p> <p>CO 1: To explain the differences between water and fat-soluble vitamins, including how each one functions in the body, the deficiency/toxicity symptoms, and major food sources.</p> <p>CO 2: To explain the differences between major and minor minerals, including how each one functions in the body, the deficiency/toxicity symptoms, and major food sources.</p> <p>CO 3: To understand the interrelationship between nutrients.</p>
			9356	<p>Women Studies</p> <p>CO 1: To know the demographic profile of women in India</p>

				CO 2: To understand the present situation and changes in the status of women.
			262	<p>Nutrition Exercise and Fitness (ND) (Theory + Practical)</p> <p>CO 1: To know the major nutrition- related problems currently prevailing in India and the reasons contributing to the situation</p> <p>CO 2: To understand the sampling techniques and principles of various methods of assessment of nutritional status in the community</p> <p>CO 3: To know the intervention strategies and programmes undertaken by the Governmental and certain National and International agencies to combat malnutrition</p> <p>CO 4: To understand the principles underlying the strategies and methods that can be used to plan nutrition education programmes for at-risk populations</p> <p>CO 5: To be aware of various vulnerable groups in society.</p> <p>CO 6: To design the questionnaire and conducting for Diet Surveys emphasizing diet pattern, Food habits, cooking practices, hygiene and environment</p> <p>CO 7: To plan and organize Nutrition Education in community.</p> <p>CO 8: To plan and prepare appropriate teaching aids and how to use them.</p>
			263	<p>Behavior and Lifestyle Management (ND)</p> <p>CO 1: To understand the concept of counseling, role and characteristic of nutritional counselor</p> <p>CO 2: To develop communication skills essential for nutritional counseling</p>

			<p>CO 3: To interact effectively with client/patient</p> <p>CO 4: To know the impact of lifestyle on diseases</p>
		264	<p>Professional Applications in Nutrition and Dietetics (Internship)</p> <p>CO 1: To get hands on experience in working in thrust areas.</p> <p>CO 2: To develop confidence and enhance skills</p> <p>CO 3: To develop communication skill and interpersonal relations.</p>
		761	<p>Community Nutrition (ND) (Theory + Practical)</p> <p>CO 1: To know the major nutrition- related problems currently prevailing in India and the reasons contributing to the situation</p> <p>CO 2: To understand the sampling techniques and principles of various methods of assessment of nutritional status in the community</p> <p>CO 3: To know the intervention strategies and programmes undertaken by the Governmental and certain National and International agencies to combat malnutrition</p> <p>CO 4: To understand the principles underlying the strategies and methods that can be used to plan nutrition education programmes for at-risk populations</p> <p>CO 5: To be aware of various vulnerable groups in society.</p> <p>CO 6: To design the questionnaire and conducting for Diet Surveys emphasizing diet pattern, Food habits, cooking practices, hygiene and environment</p> <p>CO 7: To plan and organize Nutrition Education in community.</p>

				<p>CO 8: To plan and prepare appropriate teaching aids and how to use them.</p> <p>CO 9: To identify various health related problems in various vulnerable sections</p>
	<p>Human Development specialization</p>	<p>The course enables the students to:</p> <p>PO1: understand the major theoretical perspectives, issues, and concepts in the field of human development</p> <p>PO2: identify the major stages of human development through the life span</p> <p>PO3: explore the process of scientific inquiry and basic research methods</p> <p>PO4: develop critical thinking skills that includes the ability to discriminate between the appropriate use of empirical and intuitive approaches in the area of human development</p>	<p>441</p>	<p>Child and Youth Development</p> <p>CO 1: To acquaint students with the developmental phases from early childhood to adolescence</p> <p>CO 2: To develop in students an awareness of certain important aspects of development during early childhood, middle childhood, and adolescence</p>
			<p>442</p>	<p>Curriculum for Young Children</p> <p>CO 1: To help students to become aware of needs of children</p> <p>CO 2: To help students to develop an insight into various activities thorough which needs of children can be met</p> <p>CO 3: To help students to develop an understanding of curriculum planning.</p>

				CO 4: To help students to become aware of an integrated approach and its importance in young children's curriculum
			443	<p>Curriculum for Young Children</p> <p>CO 1: To help students to develop an ability to use waste materials in creative way for preparation of teaching aids and activities for children.</p> <p>CO 2: To help students to develop skills for conducting various aspects of curriculum.</p> <p>CO 3: To help students to prepare materials for promoting learning in children.</p>
			444	<p>Adulthood and Ageing</p> <p>CO 1: To be aware of the last stage of life cycle: adulthood and aging.</p> <p>CO 2: To understand the biological, social and economical issues involved in elders</p> <p>CO 3: To identify the common problems faced by elders and how to cope with them</p>
			445	<p>Working With Parents</p> <p>CO 1: To develop awareness in students to the needs for parent education.</p> <p>CO 2: To acquaint student with techniques of communicating with parents of normal children and children with special needs.</p> <p>CO 3: To sensitize students regarding various skills necessary for working with parents.</p>
			451	<p>Early Childhood Education I (HD)</p> <p>CO 1: To help students to become aware of the importance of pre-school years.</p>

			<p>CO 2: To help students to recognize the influence of various philosophers, educators and theorists on early childhood education.</p> <p>CO 3: To help students to become acquainted with essential requirements for conducting educational programs for pre-school children.</p> <p>CO 4: To help students to know about some selected programs for preschool children.</p> <p>CO 5: To help students to becomes aware of the functional pre-requisites of any centre for children</p> <p>CO 6: To help students to understand the role of a preschool teachers.</p>
			<p>452</p> <p>Early Childhood Education II (HD)</p> <p>CO 1: To help students understand individual difference in children’s behavior and develop ability to work with them and guide them.</p> <p>CO 2: To help students develop skills and competencies required for conducting nursery school program.</p> <p>CO 3: To help students acquire the skills of observing and interpreting behavior and development of the child.</p>
			<p>453</p> <p>Child Psychology (HD)</p> <p>CO 1: To help students develop a comprehensive view of the child’s behavior.</p> <p>CO 2: To help students become aware of the impact of different influences on the child’s psychology.</p> <p>CO 3: To help students develop an understanding about some selected theories in child psychology.</p> <p>CO 4: To help students develop an awareness about some new concepts in the field.</p>

			<p>454</p> <p>Community Development Programme (HD) CO1: Opportunities for practical experience in organization and administration of agency services, and/or various program areas and to increase their knowledge and skills in areas consistent with career goals and philosophy. CO 2: Determine their professional strength and weakness. CO 3: To further enhance a student understanding and conceptualization of professionalism. CO 4: To appreciate the need to build healthy, productive relationship (with agency supervisor, staff and client). CO 5: To develop and enhance capacity of students to relate theory to practice.</p>
			<p>455</p> <p>Recent Advances in Human Development (Seminar)and Women's Issues CO 1: To train students to find reference material. CO 2: To train student to analyze, condense and evaluate articles/report. CO 3: To help students develop an ability to effectively present a research paper /report. CO 4: To help students develop ability to prepare and present reviews of articles.</p>
			<p>9356</p> <p>Women's Studies CO 1: To help students to know the demographic profile of women in India. CO 2: To help students to understand the present situation and changes in the status of women.</p>
			<p>461</p> <p>Children With Special Needs (HD)</p>

				<p>CO 1: To help students recognize and understand the needs of special children.</p> <p>CO 2: To help students be aware of the nature of some disabilities in children.</p> <p>CO 3: To help students understand the importance of detecting disabilities.</p> <p>CO 4: To make students aware of the methods of detection, as well as the types and characteristics of each disability.</p> <p>CO 5: To help students become aware of the services available for children in need of special help.</p>
			462	<p>Basics of Guidance and Counselling (HD)</p> <p>CO 1: To help students to develop an understanding of principles of guidance.</p> <p>CO 2: To acquaint students with the major/important psychological assessments.</p> <p>CO 3: To help students to develop an insight into children's behaviors and behavior problems</p> <p>CO 4: To sensitize students with the ways of handling and managing various problems.</p>
			463	<p>Management of Centers for Children and Youth (HD)</p> <p>CO 1: To offer purposeful learning experience to students through placement in different organizations for children, under supervisory guidance to enhance their knowledge, skills and attitude.</p> <p>CO 2: To enable students plan recreational and educational programs for children in different centers.</p>

				<p>CO 3: To help students to develop skills in handling and working with children belonging to various age group and strata of the society.</p> <p>CO 4: To help students to get a clear understanding and identification of their role and future profession and make attempts to integrate values and goals of their future profession.</p>
			464	<p>Professional Application in Human Development (Internship)</p> <p>CO 1: To provide students with an in-depth knowledge of the formal functional activities of a participating organization.</p> <p>CO 2: To acquaint students to the overall working of Institutions- Enrollment, Administration, Academic program etc.</p> <p>CO 3: To help students to develop skills in the application of theory to practical work situations.</p> <p>CO 4: To provide students with an in-depth knowledge of the formal functional activities of an organization.</p>
	Interior Space Design Specialization	<p>The course enables the students to</p> <p>PO1: gain a good understanding of the principles of Interior Design.</p> <p>PO2: apply the principles of anthropometry and ergonomics, knowledge of colour, materials, methods and the skills acquired, in residential and commercial interior design.</p>	341	<p>Resource Management</p> <p>CO 1: To enable the students to understand concepts, principles, and functions of management.</p>

		PO3: acquire knowledge of the code of professional practice and management as Designers.		CO 2: To create an awareness among the students about management in family living (micro level) as well as macro level. CO 3: To enable the students to recognize the importance of wise use of resources, with reference to time, energy and finance and applying the management process in order to achieve goals.
			842	Elements of Planning CO 1: To enable the students to gain a better understanding of the principles of Interior Designing CO 2: To gain a better understanding of the use of anthropometric measurements, color, materials and joinery as well as workmanship in residential as well commercial interiors. CO 3: To apply the knowledge and skill in planning interior space design and management of the project for clientele.
			843	Drafting and Designing CO 1: To enable the students to gain knowledge about the importance of housing needs and finance CO 2: To enable the students acquire knowledge of principles of residential space design CO 3: To enable the students to understand principles of residential lighting and the standards of designing lighting systems
			844	Application of Ergonomic in Interior Designing

			<p>CO 1: To provide an understanding of ergonomic principles, its importance and application in the design of work, spaces as well as products & equipment's. Emphasis is given to various aspects of human interaction with machines, environment as well as other social and legal issues.</p>
			<p>845</p> <p>Basic Auto CAD</p> <p>CO 1: To enable students to learn powerful the techniques to customize AutoCAD for their own need and to streamline the design process to cover the areas as file maintenance to implement CAD standards.</p> <p>CO 2: To prepare students to meet the industrial requirements of design drafting</p> <p>CO 3: To serve as a base for further professional education and specialization of interior design and decoration</p> <p>CO 4: To prepare students to keep pace with latest professional and technological developments and use these for providing interior design services.</p>
			<p>851</p> <p>Interior Design</p> <p>CO 1: To equip the students with thorough knowledge about basic concepts of interior design.</p> <p>CO 2: The students shall also learn planning processes and develop intellectual and creative skills required for Interior Design</p> <p>CO 3: Develop futuristic concepts for interior design in profession</p>
			<p>852</p> <p>Residential Planning and Designing</p> <p>CO 1: To understand various aspects and requirements of a residential interior design</p>

				<p>CO 2: The student will be able to design residential interiors ranging from simple activity based small-scale residence of about 30 Sq. M. to complex activity based large-scale residence of about 300 Sq. M. (1-room unit to independent bungalow)</p> <p>CO 3: To learn technical specifications of designed furniture</p>
			853	<p>Building Construction</p> <p>CO 1: To make the students aware of the types, properties, trends and cost of building materials</p> <p>CO 2: To enable the students to become aware of the structural systems and techniques of building construction</p> <p>CO 3: To improve knowledge of students in the areas of detailing</p>
			854	<p>Advanced AutoCAD</p> <p>CO 1: To enable students to learn and enhance their 3 dimensional visualization for their design / future design presentation</p> <p>CO 2: To prepare students to meet the professional requirements of designing and creating new visions</p> <p>CO 3: To serve as a base for further professional education and specialization of interior design and decoration</p> <p>CO 4: To prepare students on -Presentations like photo imaging, realistic views, animation, etc</p>
			855	<p>Recent Advances in Interior Designing (Seminar)</p> <p>CO 1: After completing the course, it will help the students to acquire the knowledge of available resources for their professional conduct</p>

				<p>CO 2: Reworking of existing projects by developing new concepts</p> <p>CO 3: To help the students in developing their confidence in dealing with various materials, its selection while purchasing and negotiating.</p> <p>CO 4: To develop the ability to understand and distinguish between the quality and rate of the product.</p>
			9356	<p>Women's Studies</p> <p>CO 1: To help students to know the demographic profile of women in India.</p> <p>CO 2: To help students to understand the present situation and changes in the status of women.</p>
			861	<p>Commercial Designing and Professional Practices</p> <p>CO 1: To develop in the student the capacity to visualize and draw simple commercial interior schemes</p> <p>CO 2: To develop student skills in selection of appropriate materials for various surfaces</p> <p>CO 3 To enable student to understand the code of professional management and practice as interior designers.</p>
			862	<p>Advance Interior Design</p> <p>CO 1: To develop in the student the capacity to visualize and draw simple commercial interior schemes</p> <p>CO 2: To develop student skills in selection of appropriate materials for various surfaces</p> <p>CO 3: To enable student to understand the code of professional management and practice as interior designers.</p>

			863	<p>Building Services CO 1: To enable the students to draw service layouts for water supply, drainage and electricity. CO 2 To introduce to the student the extra services required for building</p>
			864	<p>Professional Application and Practices in Interior Designing (Internship) CO 1: To gain practical experience in the organization and administration in related field of interior space design and services areas and to increase knowledge and skill in delivery of services. CO 2: To learn and experiment the Field-work, theories, concepts, and philosophies acquired or developed through classroom experience. CO 3: To work and learn from professionals in the student's area of interest, and begin establishing ties to the professional community. CO 4: To enhance job seeking skills for future placement. CO 5: To enhance professional growth through self-evaluation and reflection</p>
	Textile Science and Apparel Design Specialization	<p>The course enables the students to</p> <p>PO1: gain scientific knowledge of textile technology from fibre to fabric, their manufacturing process, and its quality control.</p>	541	Textile Science

		<p>PO2: develop skill in basic and commercial clothing construction and apparel design.</p> <p>PO3: impart knowledge and develop skills in wet processing, dyeing and printing.</p> <p>PO4: be aware about rights of a consumer in the market of textiles and garments.</p> <p>PO5: get acquainted with rich heritage of Indian textiles and embroideries.</p> <p>PO6: have an insight on application of information and technology in textile industry.</p> <p>PO7: develop entrepreneurship skills related to textiles and clothing.</p>		<p>CO 1: To acquire the knowledge of different kinds of natural and man-made fibers.</p> <p>CO 2: To understand the fabric behavior with reference to fiber, yarn and fabric properties</p> <p>CO 3: To develop an understanding of different kinds of blends.</p> <p>CO 4: To acquire the knowledge of different types of finishes.</p> <p>CO 5: .To learn to identify fiber blends and their percentage.</p> <p>CO 6: To acquire the knowledge of various application of Textile fibers.</p>
			542	<p>Basic Pattern Making And Grading</p> <p>CO 1: To understand three methods of clothing construction.</p> <p>CO 2: To understand flat pattern method to design Apparel with various patterns.</p> <p>CO 3: To develop skills in designing various apparels as per fashion trend.</p> <p>CO 4: To acquire skills in sewing variety of patterns with accuracy, good taste by basic pattern adaptations.</p>
			543	<p>Fundamentals of Apparel Merchandising and Marketing</p> <p>CO 1: To understand the concept of marketing.</p>

			<p>CO 2: To learn general principles of marketing, sales, quality, packaging, distribution, advertising, branding, marketing research etc.</p> <p>CO 3: To understand the current scenario of business.</p> <p>CO 4: To gain the basic knowledge of international marketing.</p> <p>CO 5: To gain knowledge about the merchandising activities.</p> <p>CO 6: To develop skills and qualities needed for merchandiser</p> <p>CO 7: To learn framework for practical application of merchandising tools in solving problems and in taking correct business decisions. .</p> <p>CO 8: To enhance organizational performance by utilizing concepts involving individual behavior within an organization</p>
		544	<p>Traditional Textiles and Embroideries Of India</p> <p>CO 1: To acquire knowledge of different textiles produced in different states of India.</p> <p>CO 2: To acquaint the students with the different motifs, colors and weaving techniques used in the textiles along with their significance.</p> <p>CO 3: To acquire knowledge of various embroideries done in India with the historical background of each.</p> <p>CO 4: To learn different types of stitches, motifs, colors and materials used in the embroideries and their significance</p> <p>CO 5: To acquaint the students with the work of handloom board, khadi board in India.</p>
		545	Soft Skills Development

				<p>CO 1: To improve confidence level of the student by enhancing their communication skills</p> <p>CO 2: To equip students with employability skills so as to enhance career opportunities</p> <p>CO 3: To enable students to make timely and productive decisions so as to enable their career advancement</p> <p>CO 4: To train students on how to project a professional image at the workplace</p>
			551	<p>Basic Fashion Illustration</p> <p>CO 1: To help students to understand the concept of fashion illustration and fashion designing.</p> <p>CO 2: To impart skill in making of Basic Silhouettes and variation.</p> <p>CO 3: To enable the students to develop skills in designing fashion accessories.</p> <p>CO4: To help students in gaining confidence in fashion illustration and designing so as to sustain in the highly competitive market.</p>
			552	<p>Textile and Garment Quality Control</p> <p>CO 1: To acquire knowledge of different physical properties of fiber, yarn and fabric.</p> <p>CO 2: To analyze the utility of different physical testing equipment's.</p> <p>CO 3: To analyze and interpret the results obtained by carrying out various tests</p>
			553	<p>Fashion Apparel Design</p> <p>CO 1: To acquire skills in handling different types of fashion fabrics.</p> <p>CO 2 To develop skills in sewing variety of patterns.</p>

				<p>CO 3: To. understand flat pattern method and design for self and others.</p> <p>CO 4: To finish the garments as per standard methods.</p>
			554	<p>Textile Chemistry</p> <p>CO 1: To learn chemical structures and reaction mechanism of dyes.</p> <p>CO 2: To learn the selection and application on various fibers.</p> <p>CO 3: To learn the role of auxiliaries in dyeing and printing.</p> <p>CO 4: To learn selection of dyes on different textile fibers and their dyeing methodology.</p> <p>CO 5: To learn the color fastness properties of dyed fabrics</p>
			555	<p>Recent Advances in Textile Science and Apparel Design (Seminar)</p> <p>CO 1: Students learn to trace reference material, analyze, evaluate and condense articles, reports or research articles.</p> <p>CO 2: Students gain experience of group discussion on various topics.</p> <p>CO 3: The learner develops ability to collect and effectively present information before students.</p> <p>CO 4: The learner learns to prepare review and present on selected articles.</p>
			9356	<p>Women Studies</p> <p>CO 1: To help students to know the demographic profile of women in India.</p> <p>CO 2: To help students to understand the present situation and changes in the status of women.</p>

			<p>561</p> <p>Wet Processing</p> <p>CO 1: To acquire basic knowledge about the different operations involved in textile processing.</p> <p>CO 2: To understand the basics of the dyes and auxiliaries used in dyeing and printing.</p> <p>CO 3: To understand different styles and methods of printing.</p> <p>CO4: To understand the different textile processing methods.</p> <p>CO 5: To develop the skill of dyeing and printing fabrics with the various styles and methods</p>
			<p>562</p> <p>Fabric Construction and Analysis (Theory + Practical)</p> <p>CO 1: To acquire knowledge about the different types of traditional and modern looms.</p> <p>CO 2: To acquire basic knowledge about the different operations involved in fabric weaving.</p> <p>CO 3: To acquire knowledge of the different types of fabric structures and design and be able to prepare woven designs with suitable draft and peg plan.</p> <p>CO 4: To be able to analyze different types of weave patterns.</p> <p>CO 5: To learn the principles of creating different colour and weave effects in weaving.</p> <p>CO 6: To understand the preparatory processes of weaving.</p> <p>CO 7: To learn to set & operate handloom for weaving.</p> <p>CO 8: To get acquainted with the weaving calculations.</p>

				<p>CO 9: To learn to weave different design</p> <p>CO 10: To acquire knowledge of the different types of fabric structures and design</p> <p>CO 11: To be able to prepare woven designs with suitable draft and peg plan</p> <p>CO12: To be able to analyze the woven designs(weaves).</p>
			563	<p>Theory of Knitting</p> <p>CO 1: To understand the basics of knitting</p> <p>CO 2: To gain knowledge about various knitting techniques used in modern knitting industry.</p> <p>CO 3: To gain knowledge of the basic and specialized knitted fabrics used in knitwear production.</p>
			564	<p>Professional Applications in Textile Science and Apparel Design (Internship)</p> <p>CO 1: Students acquire practical knowledge of the actual working conditions in the industry.</p> <p>CO 2: Students get acquainted with the application systems followed in the industry.</p>
	Human Ecology and Family Science Specialization	<p>The course enables the students to</p> <p>PO1: to develop the competence for entrepreneurship and employment in various disciplines of Home Science.</p> <p>PO2: to address the needs and issues of self, family and community through this multi-disciplinary course.</p>	145	Community Dynamics

				<p>CO 1: To understand and analyze community as a dynamic entity.</p> <p>CO 2: To analyze the interrelation between issues and sustainable development of communities.</p> <p>CO 3: To comprehend the concept, context and strategies of community work.</p> <p>CO 4: To develop competencies to use the method in practice while working in community</p>
			441	<p>Child And Youth Development</p> <p>CO 1: To acquaint the student with the developmental phases from early childhood to adolescence.</p> <p>CO 2: To develop an awareness of certain important aspects of development during early childhood, middle childhood and adolescence.</p>
			544	<p>Traditional Textiles and Embroideries Of India</p> <p>CO 1: To acquire knowledge of different textiles produced in different states of India.</p> <p>CO 2: To acquaint the students with the different motifs, colors and weaving techniques used in the textiles along with their significance.</p> <p>CO 3: To acquire knowledge of various embroideries done in India with the historical background of each.</p> <p>CO 4: To learn different types of stitches, motifs, colors and materials used in the embroideries and their significance</p> <p>CO 5: To acquaint the students with the work of handloom board, khadi board in India</p>
			545	Soft Skill Development

				<p>CO 1: To improve confidence level of students by enhancing their communication skills</p> <p>CO 2: To equip students with employability skills so as to enhance career opportunities</p> <p>CO 3: To enable students to make timely and productive decisions so as to enable their career advancement</p> <p>CO 4: To train students on how to project a professional image at workplace</p>
			745	<p>Food Preservation (Theory+ Practical)</p> <p>CO 1: To understand the basic principles of food preservation.</p> <p>CO 2: To learn the various preservation techniques and their applications.</p> <p>CO 3: To apply principles of food preservation.</p> <p>CO 4: To prepare preserved products using different preservation methods</p>
			351	<p>Front Office Operations and Accommodation (HECS)</p> <p>CO 1: To practice the procedures seen in the front office.</p> <p>CO 2: To understand the functions of the components of reservation, registration and accounting duties in detail.</p> <p>CO 3: To enable the students to design various formats and do role plays of the process followed in front office</p> <p>CO 4: To maintain a journal for recording all the exercises done in the practical for ready reference.</p>
			652	<p>Entrepreneurship Development/Social Entrepreneurship (HECS)</p>

				<p>CO 1: To understand the concept of entrepreneurship</p> <p>CO 2: To acquire knowledge about the world of entrepreneurs</p> <p>CO 3: To understand and inculcate entrepreneurial values, attitudes, qualities and desires.</p> <p>CO 4: To sow the seed of entrepreneurship in fertile mind</p>
			654	<p>Programme Planning and Management (HECS)</p> <p>CO 1: To understand the importance and process of programme planning & management in extension</p> <p>CO 2: To develop an ability to plan, implement, monitor and evaluate extension programmes.</p>
			655	<p>Recent Advances In Human Ecology and Consumer Services and Women's Issues</p> <p>CO 1: To train students to find reference material.</p> <p>CO 2: To train student to analyze, condense and evaluate articles/report.</p> <p>CO 3: To provide experience in group discussion in the subject.</p> <p>CO 4: To help students develop an ability to make effective presentation.</p> <p>CO 5: To help students develop ability to prepare and present reviews of articles</p>
			1051	<p>Dyeing and Printing (HECS)</p> <p>CO 1: Students acquire knowledge on classification of dyes.</p> <p>CO 2: Students learn about various dyes</p> <p>CO 3: Learner learns methods and procedures of application of dyes</p> <p>CO 4: They understand the preparatory processes</p>

			<p>361</p> <p>Event Management (HECS) (Theory + Practical's)</p> <p>CO 1: To understand the importance of events, event management and its role in the hospitality industry</p> <p>CO 1: To understand the basic functioning of the event industry in respect with its feasibility, marketing and promotion</p> <p>CO 2: To study various Human Resource functions in event management</p> <p>CO 3: To learn various methods of budgeting and account keeping in event management.</p> <p>CO 4: To understand and design event proposals and projects</p> <p>CO 5: To understand the importance of events and its role in the hospitality industry</p> <p>CO 6: To understand the basic functioning of the event industry in respect with its feasibility, marketing and promotion</p> <p>CO 7: To study various Human Resource functions in event management.</p> <p>CO8: To learn various methods for event promotion and media functions.</p> <p>CO 9: To understand and design event proposals and projects.</p>
			<p>462</p> <p>Basics of Guidance and Counseling (HECS)</p> <p>CO 1: To develop an understanding of principles of guidance.</p> <p>CO2: To acquaint students with the major/important psychological assessments.</p> <p>CO3: To develop an insight into children's behaviors and behavior problems.</p>

				CO4: To sensitize students with the ways of handling and managing various problems
9	B. Sc. Food Science and Quality Control	<p>The course enables the students to</p> <p>PO1: learn various aspects of Foods</p> <p>PO2: develop skills in Food Analysis and assessment of Food Quality</p> <p>PO3: have knowledge of various manufacturing and packaging equipment</p> <p>PO4: comprehend the basic principles of industrial management</p> <p>PO5: develop innovative Food Products</p>	<p>9101</p>	<p>English I</p> <p>CO1: To enable the student to read with fluency while simultaneously comprehending passages in English</p> <p>CO 2: To equip the student with skills to participate independently in conversations and discussions conducted in English</p> <p>CO 3: To develop written communication skills for everyday and professional communication</p> <p>CO 4: To develop the student's creatively so that she may express her ideas descriptively and creatively.</p>
			9102	<p>Applied Science</p> <p>CO 1: To know the importance of science in daily life</p> <p>CO2: To develop analytical attitude.</p> <p>CO 3: To develop scientific way of thinking</p> <p>CO 4: To impart knowledge to apply.</p>
			1103	<p>Food Hygiene and Sanitation</p> <p>CO 1: To identify critical control points</p> <p>CO 2: To describe food borne illness symptoms and preventative methods.</p> <p>CO 3: To describe personal hygiene and health habits.</p>

				<p>CO 4: To describe how to prepare potentially hazardous food according to safe time and temperature principles.</p> <p>CO 5: To recognize signs of food spoilage</p> <p>CO 6: To recognize safe receiving, storing and handling raw and prepared foods.</p>
			1104	<p>Human Ecology and Family Science I</p> <p>CO1: To develop an understanding of self in relation to family and society.</p> <p>CO 2: To understand their roles and responsibilities as productive individuals, as members of family, community and society.</p> <p>CO 3: To integrate learning across diverse domains and form linkages with other academic subjects of human ecology.</p>
			9105	<p>Environment Studies</p> <p>CO 1: To make students aware about the importance, current situation of natural resources and the need to conserve them.</p> <p>CO 2: To give information about concept, types of various ecosystems</p> <p>CO 3: To make aware about biodiversity, and need of conservation.</p> <p>CO 4: To create awareness about social issues and the solutions to solve them</p>
			9201	<p>English II</p> <p>CO 1: Prepare and deliver an effective presentation</p> <p>CO 2: Write an effective resume</p> <p>CO 3: Appear for an interview process with confidence</p>

				CO 4: Develop skills of reading literary narratives with understanding and appreciation
			9202	Human Physiology CO 1: The students will understand the basic structure and functions of the human body CO 2: Student will be acquainted with common diseases/disorders of each system
			1203	Physical and Analytical Chemistry CO 1: To acquaint the students to fundamental principles of physical and analytical chemistry CO 2: To understand the diverse analytical processes and the various steps involved in the same CO 3: To develop analytical skills CO 4: To understand the various instrumentation techniques applied
			9204	Fundamentals of Food Science and Nutrition CO 1: Students understand the inter-relationship between food, nutrition and health CO 2: Students know the methods and principles involved in cooking. CO 3: Students understand the knowledge of food science and the changes occurring during food preparation CO 4: Students know the methods and principles involved in cooking. CO 5: Students learn to relate foods with their nutrient content CO 6: Students relate weight and measures of raw foods with cooked amounts and associate them with serving size.

				<p>CO 7: Students apply the knowledge of food science and observe the changes occurring during food preparation</p> <p>CO 8: Students list rich food sources of various nutrients and plan and prepare recipes</p>
			1205	<p>Human Ecology and Family Science II</p> <p>CO 1: To understand various streams of Human Ecology and family sciences</p> <p>CO 2: To integrate learning across various domains of human ecology</p>
			9301	<p>Nutrition for Life Span</p> <p>CO 1: Students understand the physiological changes, special needs and health concerns of people at different stages of life</p> <p>CO 2: Students understand the importance of nutrition to physical, psychological growth and development and ageing.</p>
			932	<p>Entrepreneurship Development</p> <p>CO1: To understand the concept of entrepreneurship</p> <p>CO 2: To acquire knowledge about the world of entrepreneurs</p> <p>CO 3: To understand and inculcate entrepreneurial values, attitudes, qualities and desires.</p> <p>CO 4: To sow the seed of entrepreneurship in fertile mind</p>
			933	<p>Food Science and Sensory Evaluation</p> <p>CO 1: To understand nature and composition of food</p>

				<p>CO 2: To know the role of different ingredients along with methods and principles used in food preparation</p> <p>CO 3: To understand the changes occurring in foods during cooking.</p> <p>CO 4: To understand nature and composition of food</p> <p>CO 5: To observe the principles of food Science</p> <p>CO6: To comprehend the role of different ingredients used in food preparation</p>
			934	<p>Organic and Inorganic Chemistry</p> <p>CO 1: To understand the basis and significance of atomic models and the different types of bonds</p> <p>CO 2: To understand the fundamental principles of titration</p> <p>CO 3: To acquaint the students to the principles of organic chemistry</p> <p>CO 4: To gain the knowledge about the different functional groups in detail</p>
			935	<p>Post Harvest Technology I</p> <p>CO1: To know methods of purchasing and storing materials.</p> <p>CO2: To understand post-harvest techniques for Foods.</p> <p>CO3: To learn packaging of the final product</p> <p>CO4: To gain knowledge of the basic principles and the procedures in the production of bakery and other cereal products.</p>
			741	<p>Advanced Chemistry</p> <p>CO 1: To lay the foundation of biological chemistry</p>

				<p>CO2: To Give insights about the chemical reactions that occur in biological systems.</p> <p>CO 3: To impart knowledge about the structures of the principle components present in biological systems</p> <p>CO 4: To impart practical training in chemistry</p> <p>CO5: To develop understanding of the fundamentals of chemical reactions through hands on training.</p> <p>CO 6: Impart the necessary knowledge in identification of important compounds in biological systems.</p>
			742	<p>Food Microbiology</p> <p>CO 1: To understand the nature and the role of microorganisms in food.</p> <p>CO 2: To have a knowledge of the basic principles of food sanitation and safety</p> <p>CO 3: To acquire a perspective of the importance of microorganisms in environmental microbiology.</p> <p>CO 4: To understand the principles, working and use of various equipment's</p> <p>CO 5: To have knowledge of the underlying principles in practical food microbiology</p> <p>CO 6: To develop awareness about the different techniques used for isolation and primary identification of microorganisms.</p>
			744	<p>Food Analysis</p> <p>CO 1: To impart basic skills to do laboratory work.</p> <p>CO 2: To teach general principles involved in instrumental method.</p>

				<p>CO3: To make the students understand the principles involved in the estimations.</p> <p>CO 4: To provide training in analysis of different food component or constituents.</p> <p>CO 5: To teach simple tests to detect food adulterant from commonly consumed foods.</p> <p>CO 6: To introduce to the qualitative standards and specifications laid down by food safety and food standards authority of India.</p>
			944	<p>Post Harvest Technology II</p> <p>CO 1: To know methods of purchasing and storing materials.</p> <p>CO 2: To understand post harvest techniques for Foods.</p> <p>CO 3: To learn packaging of the final product.</p> <p>CO 4: To be aware of the basic principles and the procedures in the production of milk and milk products, marine products and other animal products.</p>
			945	<p>Food Commodities</p> <p>CO 1: To understand the basic food commodities (raw and processed) used in food industries.</p> <p>CO 2: To develop an in depth understanding of knowledge of the properties of food commodities and products</p> <p>CO 3: To develop a comprehensive awareness of the parameters that will affect food nutritional value/quality and the ability to consider/apply these in purchasing and/or marketing food commodities and products.</p>
			751	Biochemistry

			<p>CO 1: To know the fundamentals of metabolic processes / pathways occurring in the body.</p> <p>CO 2: To understand the significance of various metabolic processes / pathways.</p> <p>CO 3: To understand the integration of these metabolic processes.</p> <p>CO 4: To develop the ability to apply the significance of these processes to different physiological / metabolic conditions.</p> <p>CO 5: To learn the principles and procedures of biochemical analysis of blood and urine.</p> <p>CO 6: To develop ability to interpret the results of the estimations of the common Constituents of biological fluids.</p>
		952	<p>Food Standards and Quality Control</p> <p>CO 1: To know the importance of quality assurance in food industry.</p> <p>CO 2: To be aware of standards for quality assessment.</p> <p>CO3: To familiarize the students with the fundamentals considered for successful quality control program</p>
		953	<p>Quality Control in Foods</p> <p>CO 1: To develop skills in analyzing foods</p> <p>CO 2: To Assess quality of food using food standards</p>
		754	<p>Diet Therapy</p> <p>CO 1: To understand the etiological factors and physiological changes associated with specific disease conditions.</p>

				<p>CO 2: To acquire the ability to modify the normal diet to suit individuals suffering from specific diseases and lifestyle disorders.</p> <p>CO 3: To apply principles of diet therapy in planning and preparing foods for specific health conditions.</p> <p>CO 4: To plan foods for specific disease conditions keeping in mind cost, availability and other factors</p>
			955	<p>Recent Advances in Food Science and Quality Control</p> <p>CO 1: To be aware of areas of research in the field.</p> <p>CO 2: To enrich themselves with recent advances.</p> <p>CO 3: To develop competence in reviewing the research papers.</p> <p>CO 4: To develop competence in presentations.</p>
			9356	<p>Women's Studies</p> <p>CO 1: To help students to know the demographic profile of women in India.</p> <p>CO 2: To help students to understand the present situation and changes in the status of women.</p>
			961	<p>Food Processing and Applications</p> <p>CO 1: To acquire knowledge of basic principles of food processing.</p> <p>CO 2: To comprehend the role of different ingredients used in food processing</p> <p>CO 3: To develop skills in production of some food products</p> <p>CO 4: To develop a discriminating appreciation of quality and standard of commodities available</p>
			962	<p>Food Toxicology and Industrial Waste Water Management</p>

				<p>CO 1: To have knowledge of the various toxins occurring naturally or introduced into food.</p> <p>CO 2: To acquire knowledge of the physical, chemical and microbiological parameters in food</p> <p>CO 3: To develop analytical skill.</p> <p>CO 4: To Understand the nature of contaminants in water and food.</p>
			963	<p>Food Equipment and Packaging</p> <p>CO 1: To acquire knowledge and understanding of basic engineering principles in the fields of Food Processing</p>
			964	<p>Professional Application in FSQC</p> <p>CO 1: Get hands-on experience in working in thrust areas.</p> <p>CO 2: Develop technical and communication skills.</p> <p>CO 3: Develop confidence and enhance soft skills.</p>
18	M.Sc. Nutrition & Food Processing	<p>The course enables the students to</p> <p>PO1: impart knowledge and develop capacities of the students through state-of-the-art higher education in the areas of Human Nutrition and Food Science, Food Safety and Quality, Food Processing and Food Product Development</p> <p>PO2: develop students to become professionals in these and related areas who can work effectively and efficiently in academics, research, food industry, training, extension and community service</p>	18101	<p>Nutritional Biochemistry (TH)</p> <p>CO 1: Augment the knowledge of biochemistry acquired at the undergraduate level</p>

		PO3: develop capacities and abilities and enable them to pursue higher education and research in Food Science, Nutrition and Food Processing.		CO 2: Understand the mechanisms adopted by the human body for regulation of metabolic pathways CO3: Develop an insight into interrelationships between various metabolic pathways CO4: Understand integration of cellular level metabolic events to nutritional disorders and imbalances. CO5: Become proficient for specialization in nutrition
			18102	Advanced Nutrition I (TH) CO1: Gain in-depth knowledge of the physiological and metabolic role of macronutrients, fat soluble vitamins and electrolytes and their importance in human nutrition. CO 2: Enable the understanding of basis of human nutritional requirements and recommendations through the life cycle and translate the knowledge into practical guidelines for dietary needs. CO 3: Familiarize with the recent advances in nutrition and apply this knowledge in planning for public health programmes.
			18103	Analytical Instrumentation (PR) CO 1: Learn various modern instrumental techniques in food analysis. CO 2: Understand the applications, strengths and limitations of different methods.
			18104 &	Food Microbiology and Safety (TH) + (PR)

			18105	<p>CO 1: Gain deeper knowledge of role of micro-organisms in humans and environment.</p> <p>CO 2: Understand the importance of micro-organisms in food spoilage and to learn advanced, techniques used in food preservation.</p> <p>CO 3: Understand the recent procedures adopted in various food operations to prevent food- borne disorders and legal aspects involved in these areas.</p>
			18106	<p>Sensory Evaluation (PR)</p> <p>CO 1: Understand concepts about sensory evaluation of food.</p> <p>CO 2: Use different sensory methods for evaluating the quality of foods</p>
			201	<p>Research Methodology (TH)</p> <p>CO 1: Develop a scientific approach and know the processes of research</p> <p>CO 2: Develop the competence for selecting methods and tools appropriate for research topics</p> <p>CO 3: Understand concepts of statistical measures of central tendency, dispersion, variability and probability</p>
			18202	<p>Food Science and Chemistry (TH)</p> <p>CO 1: Be familiar with composition of food stuffs</p> <p>CO 2: Understand the properties and significance of various food constituents.</p> <p>CO 3: Understand changes occurring in various food stuffs after harvest, during storage and transportation, as a result of processing and cooking.</p> <p>CO 4: Apply this knowledge for food product development.</p>

			18203	<p>Advanced Nutrition II (TH)</p> <p>CO 1: Gain in-depth knowledge of the physiological and metabolic role of vitamins and minerals and their role in human nutrition.</p> <p>CO 2: Understand the basis of human nutritional requirements and recommendations through the life cycle and translate the knowledge into practical guidelines for dietary needs.</p> <p>CO 3: Be familiar with the recent advances in nutrition and apply this knowledge in planning for public health programmes.</p> <p>CO 4: Understand the pharmacological actions of various vitamins and their implications.</p>
			18204	<p>Food Science Practical (PR)</p> <p>CO 1: Be familiar with changes occurring in various foods as a result of processing and cooking.</p> <p>CO 2: Apply theoretical knowledge in various food preparations.</p>
			18205	<p>Principles of food preservation and processing (TH)</p> <p>CO 1: Know the principles of preservation</p> <p>CO 2: Understand the principles of food processing techniques and apply the principles to specific food commodities</p> <p>CO 3: Know the principles of cleaning and sanitation</p> <p>CO 4: Be familiar with laws and regulations that govern the Food Industry</p> <p>CO 5: Be aware of current issues and trends in the Food Industry</p>
			18295	Public nutrition and health (TH)

				<p>CO 1: Develop a holistic knowledge base and understanding of the nature of important nutritional problems and their prevention and control for the disadvantaged and upper socio-economic strata in society</p> <p>CO 2: Understand the causes /determinants and consequences of nutritional problems in society</p> <p>CO 3: Be familiar with various approaches to nutrition and health interventions, programmes and policies.</p>
			301	<p>Research and Statistical Applications (TH)</p> <p>CO 1: Discriminate between parametric and non-parametric tests</p> <p>CO 2: Learn to apply statistical tests for data analysis for both large and small samples</p> <p>CO 3: Know how to interpret the results of statistical analysis of data</p> <p>CO 4: Be able to summarize data and present it using tables and graphs</p> <p>CO 5: Develop skills for preparation of research proposals</p> <p>6. Understand the components of a research report</p>
			18302	<p>Food Analysis and Quality Control (PR)</p> <p>CO 1: Gain knowledge about different methods of analysis in food systems</p> <p>CO 2: Determine nutrients in foods</p> <p>CO 3: Apply newer and modern methods in foods</p> <p>CO 4: Know the importance of quality assurance in food industry.</p>

				<p>CO 5: Be able to conduct various tests and assess quality, using standards for quality assessment and food safety.</p> <p>CO 6: Be able to conduct the various tests used to detect food adulterants.</p> <p>CO 7: Be familiar with the fundamentals that should be considered for successful quality control programme</p>
			18303	<p>Food Processing (PR)</p> <p>CO 1: To be able to measure water activity in foods.</p> <p>CO 2: Develop skills for processing of foods using various methods and technologies</p> <p>CO 3: Be able to use different preservatives for processing and preservation of variety of food products.</p> <p>CO 4: Develop skills in canning of foods</p>
			18304	<p>Food Product Development and Packaging (PR)</p> <p>CO 1: Understand and apply various aspects of food product development including Food Science and Technology, Marketing and Consumer research, finance, and communication.</p> <p>CO 2: Develop products which meet consumer needs and are nutritionally and commercially viable.</p> <p>CO 3: Be skilled in various aspects of including shelf-life assessment, testing of quality parameters and acceptability, packaging and labeling of a product.</p>
			18305	<p>Functional Foods and Nutraceuticals (TH)</p> <p>CO 1: Gain knowledge about functional foods and nutraceuticals</p>

				<p>CO 2: Have thorough understanding about the health effects</p> <p>CO 3: Understand the nutraceutical constituents present in various food products.</p> <p>CO 4: Learn and get awareness about latest research area on nutraceutical and functional food components and their applications in industry.</p>
			18391	<p>Food Laws and Standards (TH)</p> <p>CO 1: Know and understand the various national and international standards for different food articles in detail.</p> <p>CO 2: Understand the food regulatory mechanism in our country.</p>
			18403	<p>Research Applications in Nutrition and Food Processing (PR)</p> <p>CO 1: Appreciate and understand the importance of different types of scientific writing / documentation.</p> <p>CO 2: Develop competence in writing and abstracting skills.</p> <p>CO 3: Develop competence in oral presentations.</p>
			18405	<p>Recent Methods in Food Processing, Preservation and Packaging (TH)</p> <p>CO 1: Acquire systematic knowledge of basic and applied aspects of recent methods of food processing.</p> <p>CO 2: Know the basic principles in the production of important food products.</p> <p>CO 3: Understand the potential and use of various by-products of food industry.</p>

					<p>CO 4: Gain knowledge about various packaging materials and importance of packaging</p> <p>CO 5: Be familiar with packaging laws/regulations and tests used for evaluation</p> <p>CO 6: Be able to select appropriate packaging material for a variety of food stuffs vis-à-vis the need for preventing environmental degradation.</p>
17	M.Sc. Nutrition And Dietetics	Clinical And	<p>The course enables the students to</p> <p>PO1: impart knowledge and develop capacities of the students through state of the art higher education in the area of Clinical Nutrition and Dietetics, Medical Nutrition Management</p> <p>PO2: develop students to become health care professionals for services in various fields of clinical nutrition and medical nutrition management and related areas such as hospitals academics, research, industry, clinical nutrition department, training, extension and community service.</p> <p>PO3: develop capacities and abilities and enable them to pursue higher education and research in Clinical Nutrition and Dietetics</p>	17101	<p>Nutritional Biochemistry (TH)</p> <p>CO 1: Augment the knowledge of biochemistry acquired at the undergraduate level</p> <p>CO 2: Understand the mechanisms adopted by the human body for regulation of metabolic pathways</p> <p>CO 3: Develop an insight into interrelationships between various metabolic pathways</p> <p>CO 4: Understand integration of cellular level metabolic events to nutritional disorders and imbalances.</p>

				CO 5 Become proficient for specialization in nutrition
			17102	<p>Macronutrients (TH)</p> <p>CO 1: Gain in-depth knowledge of the physiological and metabolic role of macronutrients, fat soluble vitamins and electrolytes and their importance in human nutrition.</p> <p>CO 2: Enable the understanding of basis of human nutritional requirements and recommendations through the life cycle and translate the knowledge into practical guidelines for dietary needs.</p> <p>CO3: Familiarize with the recent advances in nutrition and apply this knowledge in planning for public health programmes.</p>
			17103 & 17104	<p>Medical Nutrition Therapy -I (TH) +(PR)</p> <p>CO 1: Understand the promotive and therapeutic role of diet and nutritional care With reference to weight management, fevers& infections and diseases of the gastrointestinal tract and hepatobiliary system</p> <p>CO 2: Understand the etiology, physiologic and metabolic anomalies of acute and chronic diseases and patient needs</p> <p>CO 3: Know the effect of the various diseases on nutritional status and nutritional and dietary requirements.</p> <p>CO 4: Able to recommend and provide appropriate nutritional care based on pathophysiology, prevention/ and treatment of the various diet-related disorders/ diseases.</p> <p>CO 5: Be able to use different nutritional support systems to nourish the patient</p>

			17105	<p>Pathophysiology and Metabolism in Disease (PR)</p> <p>CO 1: To understand the pathophysiological changes in different organs, tissues and systems in different disease conditions across the lifespan</p> <p>CO 2: To understand the metabolic changes occurring in disease conditions</p> <p>CO 3: Comprehend the implications of functional interrelationships in a diseased body</p> <p>CO 4: To know and interpret the various diagnostic indicators/parameters</p> <p>CO 5: To apply this knowledge for planning nutritional care of individuals</p>
			17191	<p>Advanced Nutrition (PR)</p> <p>CO 1: To use, apply and interpret various methods for assessment of nutritional status, assessment of dietary/nutrient intakes, physical activity and energy expenditure, and interpret tests used for lipid profile and glycemic control.</p>
			201	<p>Research Methodology (TH)</p> <p>CO 1: Develop a scientific approach and know the processes of research</p> <p>CO 2: Develop the competence for selecting methods and tools appropriate for research topics</p> <p>CO 3: Understand concepts of statistical measures of central tendency, dispersion, variability and probability</p>
			17201	<p>Applied Food Science and Product Modification (PR)</p> <p>CO 1: Understand and apply various aspects of food science for dietary management and product development.</p>

				<p>CO 2: Develop products, which meet nutritional needs of consumers.</p> <p>CO 3: Understand theoretical concepts about sensory evaluation of food.</p> <p>CO 4: Use different sensory methods for evaluating variety of foods.</p> <p>CO 5: Analyse and interpret sensory evaluation data.</p>
			17291	<p>Clinical Nutrition (TH)</p> <p>CO 1: Understand the etiology, physiologic and metabolic anomalies of acute and chronic diseases and patient needs.</p> <p>CO 2: To assess nutritional status of patients.</p> <p>CO 3: Be familiar with recent advances in the medical nutritional management of various diseases.</p>
			17202	<p>Vitamins (TH)</p> <p>CO 1: Gain in-depth knowledge of the physiological and metabolic role of vitamins and their role in human nutrition.</p> <p>CO 2: Understand the basis of human nutritional requirements and recommendations through the life cycle and translate the knowledge into practical guidelines for dietary needs.</p> <p>CO 3: Be familiar with the recent advances in nutrition and apply this knowledge in planning for public health programmes.</p> <p>CO 4: Understand the pharmacological actions of various vitamins and their implications.</p>
			17203	<p>Medical Nutrition Therapy - II (TH)</p>

				<p>CO 1: Understand the promotive and therapeutic role of diet and nutritional care With reference to Endocrine disorders, renal disorders, cardiovascular system, musculoskeletal system</p> <p>CO 2: Understand the etiology, physiologic and metabolic anomalies of acute and chronic diseases and patient needs</p> <p>CO 3: Know the effect of the various diseases on nutritional status and nutritional and dietary requirements.</p> <p>CO 4: Able to recommend and provide appropriate nutritional care based on pathophysiology, prevention/ and treatment of the various diet-related disorders/ diseases</p>
			17204	<p>Medical Nutrition Therapy - II (PR)</p> <p>CO 1: Market survey of commercial nutritional supplements and nutritional support substrates</p> <p>CO 2: Commonly used tests for diagnosis of various diseases- system wise - Interpretation of patient data and diagnostic tests of drawing up of patient diet prescription, using a case study approach. - Follow up – acceptability of diet prescription, compliance, discharge diet plan for each of the diseases</p>
			17292	<p>Nutrition for Sports and Exercise (TH)</p> <p>CO 1: Understand the special nutritional requirements for physical activities related to sports and exercise</p> <p>CO 2: Apply the knowledge to improve the performance of sportspersons</p>
			301	Research and Statistical Applications (TH)

				<p>CO 1: Discriminate between parametric and non-parametric tests</p> <p>CO 2: Learn to apply statistical tests for data analysis for both large and small samples</p> <p>CO 3: Know how to interpret the results of statistical analysis of data</p> <p>CO 4: Be able to summarize data and present it using tables and graphs</p> <p>CO 5: Develop skills for preparation of research proposals</p> <p>6. Understand the components of a research report</p>
			17302	<p>Minerals (TH)</p> <p>CO 1: Gain in-depth knowledge of the physiological and metabolic role of vitamins and minerals and their role in human nutrition.</p> <p>CO 2: Understand the basis of human nutritional requirements and recommendations through the life cycle and translate the knowledge into practical guidelines for dietary needs.</p> <p>CO 3: Be familiar with the recent advances in nutrition and apply this knowledge in planning for public health programmes.</p> <p>CO 4: Understand the pharmacological actions of various vitamins and their implications.</p>
			17303	<p>Public Nutrition and Health (TH)</p> <p>CO 1: Develop a holistic knowledge base and understanding of the nature of important nutritional problems and their prevention and control for the disadvantaged and upper socio-economic strata in society</p> <p>CO 2: Understand the causes /determinants and consequences of nutritional problems in society</p>

				CO 3: Be familiar with various approaches to nutrition and health interventions, programmes and policies.
			17305	<p>Nutrition in Cancer and Critical Care (TH)</p> <p>CO 1: Understand the physiology, metabolism and special requirements of the critically ill.</p> <p>CO 2: Be familiar with the special nutritional support techniques and feeding formulations to meet their nutritional needs.</p>
			17306	<p>Pediatric Nutrition (TH)</p> <p>CO 1: Know the nutritional requirements at different stages from infancy through adolescence and the recommendations/guidelines of expert groups.</p> <p>CO 2: Realise the importance of nutritional care and nourishment of children with various ailments.</p> <p>CO 3: Understand the specific needs of children and the effects of various diseases on nutritional status and nutritional requirements at these stages of the life cycle.</p> <p>CO 4: Be competent to recommend / provide appropriate nutritional care based on pathophysiology, prevention/ and treatment of the various diet-related disorders/ diseases</p>
			17392	<p>Geriatric Nutrition (TH)</p> <p>CO 1: Understand the multifaceted aspects of aging</p> <p>CO 2: Understand the specific needs of elderly and the effects of various diseases on nutritional status and nutritional requirements at these stages of the life cycle</p>

				CO 3: Be competent to recommend / provide appropriate nutritional care based on pathophysiology, prevention/ and treatment of the various diet-related disorders/ diseases
			17403	Scientific Writing (TH) CO 1: Appreciate and understand the importance of different types of scientific writing /documentation. CO 2: Develop competence in writing and abstracting skills
			17491	Dietetics Techniques and Patient Counseling (TH) CO 1: Understand the principles and procedures of nutrition counseling and the role of the counselor. CO 2: Develop an understanding how: (a) lifestyles influence health and well-being; (b) acute and chronic disease affects the emotional and psychological state and the behavior of the individuals. CO 3: Be familiar with various techniques used in counseling. CO 4: Be able to use various types and techniques of counseling to motivate patients to achieve well-being.
101	P.G. DIPLOMA In Dietetics	The course enables the students to PO1: develop as professionals with expertise in medical nutrition management/dietetics for services in hospitals and clinics.	101001	Nutritional Biochemistry CO 1: Augment the knowledge of biochemistry acquired at the undergraduate level

		PO2: develop capabilities to provided preventive and promotive care across the life cycle.		<p>CO 2: Understand the mechanisms adopted by the human body for regulation of metabolic pathways</p> <p>CO 3: Develop an insight into interrelationships between various metabolic pathways</p> <p>CO 4: Understand integration of cellular level metabolic events to nutritional disorders and imbalances.</p> <p>CO 5: Apply the knowledge for medical nutrition management in various disease conditions</p>
			101002	<p>Physiology</p> <p>CO 1: Advance their understanding of some of the relevant issues and topics of human physiology.</p> <p>CO 2: Understand the integrated functions of all systems and the grounding of nutritional science in Physiology.</p> <p>CO 3: Understand alterations of structure and function in various organs and systems in disease conditions</p>
			101003	<p>Medical Nutrition Therapy I (Th)</p> <p>CO 1: Understand the etiology, physiologic and metabolic anomalies of acute and chronic diseases and patient needs.</p> <p>CO 2: Know the effect of the various diseases on nutritional status and nutritional and dietary requirements.</p> <p>CO 3: Be able to recommend and provide appropriate nutritional care for prevention/ and treatment of the various diseases.</p>
			101004	Medical Nutrition Therapy I (Pr)

				<p>CO 1: Prescribe diets and counsel patients to provide appropriate therapeutic nutritional care and counselling</p> <p>CO 2: Develop standards of dietetic practice</p>
			101005	<p>Clinical Nutrition</p> <p>CO 1: Understand the etiology, physiologic and metabolic anomalies of acute and chronic diseases and patient needs.</p> <p>CO 2: To assess nutritional status of patients.</p> <p>CO 3: Be familiar with recent advances in the medical nutritional management of various diseases.</p>
			101006	<p>Hospital Organization, Personnel Management and Food Service Administration</p> <p>CO 1: To enable students to be familiar with medical food services and hospitals as organizations.</p> <p>CO 2: To enable students to understand the management processes in terms of planning, organizing, leading, evaluating and controlling.</p> <p>CO 3: To enable students to be familiar with legislation relating to food service and labour laws.</p>
			201001&201002	<p>Medical Nutrition Therapy II (Th) +(Pr)</p> <p>CO 1: Understand the etiology, physiologic and metabolic anomalies of acute and chronic diseases and patient needs.</p> <p>CO 2: Know the effect of the various diseases on nutritional status and nutritional and dietary requirements.</p>

				CO 3: Be able to recommend and provide appropriate nutritional care for prevention/ and treatment of the various diseases.
			201004	<p>Dietetic Techniques and Patient Counseling</p> <p>CO 1: Understand the principles and procedures of nutrition counseling and the role of the counsellor.</p> <p>CO 2: Develop an understanding how: (a) lifestyles influence health and well-being; (b) acute and chronic disease affects the emotional and psychological state and the behaviour of the individuals.</p> <p>CO 3: Be familiar with various techniques used in counseling.</p> <p>CO 4: Be able to use various types and techniques of counseling to motivate patients to achieve well-being.</p>
			201005	<p>Pediatric Nutrition</p> <p>CO 1: Know the nutritional requirements at different stages from infancy through adolescence and the recommendations/guidelines of expert groups.</p> <p>CO 2: Realise the importance of nutritional care and nourishment of children with various ailments.</p> <p>CO 3: Understand the specific needs of children and the effects of various diseases on nutritional status and nutritional requirements at these stages of the life cycle.</p> <p>CO 4: Be competent to recommend / provide appropriate nutritional care based on pathophysiology, prevention/ and treatment of the various diet-related disorders/ diseases</p>
			201023	Catering Management

				<p>CO 1: Plan and prepare various recipes/products on large scale.</p> <p>CO 2: Estimate cost and sales price of food products</p> <p>CO 3: Plan menus for quantity food service within specified cost limits</p>
			201026	<p>Public Nutrition</p> <p>CO 1: Develop a holistic knowledge base and understanding of the nature of important nutritional problems and their prevention and control for the disadvantaged and upper socio-economic strata in society</p> <p>CO 2: Understand the causes /determinants and consequences of nutritional problems in society</p> <p>CO 3: Be familiar with various approaches to nutrition and health interventions, programmes and policies.</p>
			201036	<p>Nutrition for Sports and Exercise</p> <p>CO 1: Understand the special nutritional requirements for physical activities related to sports and exercise</p> <p>CO 2: Apply the knowledge to improve the performance of sportspersons</p>