

Preamble

Home Science has contributed a great deal towards national development by training students to take up leadership roles in extension and community outreach programs. The students are encouraged to develop a scientific temper. Familiarizing them with the use of newer technologies, methods in family and community linkages, and sustainable use of resources for human development are the hall mark of education in Home Science. As a discipline Home Science integrates the ingredients of the sciences, social sciences and technology to facilitate the study of and enhance the quality of human life. Its approach is therefore inherently interdisciplinary. Traditionally, Home Science has adopted an ecological approach in its curriculum that engages the student through teaching, research and extension. The education process in Home Science underscores the importance of the individual's dynamic relationship with his/her family, community and society as a whole, as well as with the resources in the environment. Higher education learning in Home Science subjects provides students the opportunity to sharpen their capacities with a sense of social responsibility.

In contemporary times, Home Scientists promote capacity building of individuals and communities for social and economic empowerment. They train community women and youth from various strata of society for entrepreneurship. Many Home Scientists have done exceptionally well as entrepreneurs themselves. They do not remain job seekers but have also become job creators. They gain and provide employment in research organizations, food and textile industries, dietetic practice, education and child development domains, accreditation of green buildings, strategic planning and communication technologies. Keeping in view the growing aspirations of today's youth and the capacity of Home Science discipline to deliver, the present 3-year Choice Based Credit System (CBCS) curriculum has been drawn.

Years of national and international experience in the field has contributed to the wisdom that all the five windows of opportunity that Home Science offers be opened for i.e. Food and Nutrition, Human Development and Childhood Studies, Resource Management and Design Application, Development Communication and Extension and Fabric and Apparel Sciences. In this course, the students will learn the fundamental principles and foundations of all the five areas. They are expected to internalize the principle of a Home Scientist, that is, to give back to the community from which they draw, for sustainable development. This is a major contribution of Home Science in both developed and developing societies.

Program outcomes for B.Sc. Home Science course

- Understand and appreciate the role of interdisciplinary sciences in the development and well-being of individuals, families and communities
- Understand the sciences and technologies that enhance the quality of life of people
- Acquire professional and entrepreneurial skills for economic empowerment of self in particular, and community in general
- Develop professional skills in food, nutrition, textiles, housing, product making, communication technologies and human development
- Take science from the laboratory to the people

In B.Sc. (Hons) Home Science, two Skill Enhancement Courses (SEC) and study of four papers of only one of the five disciplines of Home Science (called Discipline Specific Electives or DSEs) intensively is a distinctive feature. The program gives students choices of four General Electives (GE) from non-home science courses and home science disciplines (especially in University of Delhi). The GE offered are Human Physiology (Department of Zoology), Psychology, Sociology and Economics to bring about interdisciplinarity with social sciences and sciences. The two SECs are from home science-based subjects. The curriculum is well conceived for science students and gives them professional edge to develop marketable skills as well as pursue higher education.

In B.Sc. (Pass) Home Science, four SECs and study of two papers each in three disciplines of Home science as DSEs are distinctive features. In skill-based courses study of any two of Economics/Sociology/Psychology/Physiology brings interdisciplinarity with social sciences and sciences. Two SECs are from home science-based subjects. The curriculum is well conceived for needs of contemporary women.

The Course Outcomes of all papers offered in the undergraduate programs of BSc Honours and Pass in Home Science are presented below. After completion of these courses the student will be able to:

B.Sc. HONOURS HOME SCIENCE			
Course Code	Title	Credits	Course Outcomes
Ability Enhancement Compulsory Course - I	English Communications	4	<ul style="list-style-type: none"> • Understand the theory, fundamentals and tools of communication. • Develop skills to share thoughts, emotions and ideas through various means of communication (verbal and non-verbal). • Develop various speaking skills integral to personal, social and professional interactions. • Acquire important reading and writing skills. • Differentiate between personal and professional interactions.
Ability Enhancement Compulsory Course - II	Environmental Science	4	<ul style="list-style-type: none"> • Gain field-based identification and importance of common biodiversity in their immediate surroundings (college campus). Students are regularly taken to various biodiversity parks for the same. • Calculate monetary cost of trees using direct and indirect method. • Develop observational skills based on relevant case studies of different ecosystems.

			<ul style="list-style-type: none"> • Develop skills to assess contemporary environmental issues through one-minute environmental news analysis followed by two-minute interactive session for every candidate. • Develop connection between various ecosystem services and learn various local, national and international developmental goals. • Relate environmental pollution with public health
CC1	Human Development I: The Childhood Years	4+2	<ul style="list-style-type: none"> • Demonstrate understanding and knowledge of development during the human life-span from conception to middle childhood • Gain knowledge to locate relevant examples of development in the cultural context, focussing on situatedness of childhood development in Indian culture • Competent in using methods to study development in children, and explore family and community context of Indian children
CC2	Food and Nutrition	4+2	<ul style="list-style-type: none"> • Understand the relationship between food, nutrition and health. • Understand the functions of food. • Classify foods into various food groups. • Understand digestion, absorption and function of various nutrients and their sources. • List the advantages and disadvantages of various methods of preparing food. • Understand the concept of nutrient losses during cooking and enhancement of nutritional quality of foods.
CC-3	Dynamics of Communication & Extension	4+2	<ul style="list-style-type: none"> • Develop understanding of concept of human communication and its components. • Learn the concept of extension and its inter - relationship with communication. • Understand the various tools and techniques in the process of communication. • Grasp understanding about various communication methods and media. • Develop skills in preparation, presentation and evaluation of select methods and media.

CC-4	Resource Management	4+2	<ul style="list-style-type: none"> • Comprehend the fundamentals of resource management in changing scenario. • Inculcate skills in the identification, creation, selection and judicious use of available resources with emphasis on maximization and conservation. • Understand the processes of management in a scientific manner in the use of resources.
CC 5	Introduction to Textiles	4+2	<ul style="list-style-type: none"> • Describe textile fibres in terms of their production and properties • Understand various production techniques and properties of yarns • Identify fabrics and relate it to specific products keeping in mind fabric properties and characteristics • Understand various dyeing, printing and finishing techniques
CC6	Communication Systems and Mass Media	4+2	<ul style="list-style-type: none"> • Understanding of various communication systems. • Demonstrate various types communication transactions. • Insight into the range and scope of different mass media. • Design process & techniques of media planning
CC 7	Personal Finance and Consumer Studies	4+2	<ul style="list-style-type: none"> • Gain knowledge of the changing socio-economic environment and consumer behavior. • Strengthen the financial management practices of the students for wise consumer behavior. • Apprehend the types of markets, changing concepts of markets, changes in socio-economic environment, and marketing strategies from consumer's perspective. • Comprehend issues related to consumer problems, consumer movement and consumer protection.
CC8	Human Development II: Development in Adolescence and Adulthood	4+2	<ul style="list-style-type: none"> • Demonstrate understanding and knowledge of development during the human life-span, from adolescence to late adulthood. • Gain knowledge to locate and use relevant cultural examples of development during adolescence and different phases of adulthood. • Competent in using methods to study development and socio-cultural context of Indian adolescents and adults

CC9	Nutrition-A Lifecycle Approach	4+2	<ul style="list-style-type: none"> • Comprehend the principles of planning nutritionally adequate meals. • Exercise food choices consonant with good health based on sound knowledge of principles of nutrition. • Acquire knowledge about the nutritional needs and concerns of an individual through the life cycle. • Understand nutrition considerations during special conditions for children and adults.
CC 10	Fashion Design Concepts	4+2	<ul style="list-style-type: none"> • Develop basic knowledge of fashion and design • Understand fashion and design terminology • Select suitable apparel in relation to fabric and design components for individuals • Evaluate readymade garments on various parameters while its selection • Refine design skills through detailed study of garment components • Identify style variations in apparel • Apply design elements and principles with respect to apparel design
CC11	Life Sciences	4+2	<ul style="list-style-type: none"> • Develop fundamental understanding of some contextual issues like genetically modified crops, human germ-line editing etc. • Develop practical appreciation for the rich biodiversity in the college premises with subsequent importance of food web and biodiversity management. • Understand basics of genetics and genetic counseling for better decision making. • Understand various aspects of plant sciences ranging from a cell to plant diversity with special emphasis on it's various uses and economic importance. • Acquire skills of techniques of plant propagation with it's practical application and knowledge in setting up and designing their own gardens. • Understand fundamentals of plant sciences to become aware in regard to concepts of organic farming to ensure food and nutritional security. • Understand various aspects of biotechnology including genetically modified products and GM foods with social, ecological and ethical issues

CC12	Physical Sciences	4+2	<ul style="list-style-type: none"> • Acquire the ability to correlate structures of different compounds like biomolecules, polymers and dyes etc with their properties and functions. • Understand concepts of volumetric analysis, chromatography and acquire skills for handling different equipment. • Understand basics of electricity, modern physics and electronics and the principle and working of different household equipment as well as scientific and clinical instruments. • Understand harmful effects of electromagnetic radiations and subsequently make decision while working with different gadgets. • Acquire skills in handling different household and scientific equipment effectively and efficiently.
CC13	Research Methodology in Home Science	4+2	<ul style="list-style-type: none"> • Sharpen competence in research approaches. • Acquire research acumen for any basic and advanced research. • Comprehend the purpose and procedure of research study.
CC14	Socio Economic Environment	4+2	<ul style="list-style-type: none"> • Gain knowledge of basic concepts of economics and their utilization in day to day life. • Know about the major economic problems of India and their implications on society. • Inculcate an understanding of various policy measures adopted in the country.
DSE1	Food Science	4+2	<ul style="list-style-type: none"> • Understand the basic concepts of food science and its applications in processing of food. • Gain coherent and systematic knowledge of basic food chemistry. • Understand role of micro-organisms in relation to processing and spoilage. • Understand basic principles involved in preservation and spoilage. • Impart knowledge about the national and international food laws. • Perform basic sensory and objective evaluation of food.

DSE2		4+2	<ul style="list-style-type: none"> • Develop an understanding of the principles of biochemistry (as applicable to human nutrition). • Obtain an insight into chemistry of major nutrients and physiologically important biomolecules. • Understand the biological processes and systems as applicable to nutrition. • Apply the knowledge acquired to human nutrition and dietetics.
DSE3	Theories of Human Development	4+2	<ul style="list-style-type: none"> • Understand classical and contemporary theoretical perspectives in Human Development. • Apply theoretical understanding of core concepts in Human development to the everyday context.
DSE4	Childhood in India	4+2	<ul style="list-style-type: none"> • Understand the social ecology of childhood in India. • Demonstrate the ability to identify and critically analyze representations of childhood in literature, media and the arts. • Understand the construct of childhood, its evolution and changing dimensions
DSE5	Communication For Development: BCC	4+2	<ul style="list-style-type: none"> • Understand the concept of development and development communication. • Insights into measurement of development at the local and global level. • Examine the role of various media in development. • Understand the process and techniques of development reporting for various media.
DSE6	Extension for Development	4+2	<ul style="list-style-type: none"> • Learn about concept and scope of extension in national development. • Understand the principles and process of program design and management. • Comprehend about the concept and process of advocacy. • Develop skills for using participatory approaches in programme management. • Able to interpret and evaluate an advocacy campaign for social mobilization.

DSE 7	Textile Processing	4+2	<ul style="list-style-type: none"> • Understand the terminology and the theory of dyeing • Identify various types of dyes and auxiliaries for dyeing and printing of fabrics • Describe methods and styles of printing fabrics • Understand concepts of mechanical and chemical finishing of textiles
DSE 8	Indian Textile Heritage	4+2	<ul style="list-style-type: none"> • Identify and compare embroidered fabrics of different states • Explain construction and design of select traditional woven fabrics • Describe our heritage of varied dyed, painted and printed fabrics • Indicate/illustrate care and conservation of traditional textiles • Provide an insight into the evolution and socio economic significance of <i>khadi</i>, handloom and handicraft sectors • Discuss sustenance of traditional textile crafts and interventions by organisations • Analyse the textile arts in their historical perspective, the impact of modernisation and their contemporary status
DSE9	Entrepreneurship Development & Enterprise Management	4+2	<ul style="list-style-type: none"> • Understand the meaning and concept of entrepreneurship development for women. • Sensitized and oriented towards identifying entrepreneurial opportunities and market potential. • Gain knowledge setting up of an enterprise and its management.
DSE10	Interior Design & Decoration	4+2	<ul style="list-style-type: none"> • Comprehend the nuances of design with focus on interiors. • Proficient in working and presentation drawings to be used as a design professional. • Skilled in the use of Computer aided design to prepare interior plans. • Understand the use of various materials and finishes to create aesthetically designed interiors.
DSE11	Therapeutic Nutrition	4+2	<ul style="list-style-type: none"> • Understand principles of nutrition care. • Modify the normal diet for therapeutic purposes. • Understand the etiology, clinical features and dietary management in some common disorders / diseases. • Understand significance of dietary counselling.

DSE12	Public Nutrition	4+2	<ul style="list-style-type: none"> • Understand the multi-faceted nature of nutritional problems. • Gain knowledge about techniques of assessment of nutritional status. • Be aware of the various aspects of nutrition education and promotion. • Be familiar with the policy and intervention programmes operating in India to overcome malnutrition.
DSE 13	Child Rights and Gender Justice	4+2	<ul style="list-style-type: none"> • Understand the human rights of children in the contemporary global context • Demonstrate the ability to identify contexts and needs of individuals and communities for gender sensitization and rights based interventions • Identify and use approaches for gender empowerment and creating rights based awareness in the everyday context
DSE14	Childhood Disability and Social Action	4+2	<ul style="list-style-type: none"> • Demonstrate understanding and knowledge of the etiology and social demography of a wide range of childhood disabilities. • Understand the assessment and evaluation processes associated with identification of childhood disabilities, therapy and inclusive education. • Comprehend the study and dissemination of information related to issues of disability advocacy and inclusion
DSE15	Gender, Media and Society	4+2	<ul style="list-style-type: none"> • Understand the different sectors of development, with special reference to women. • Develop insight into the issues and concerns of women. • Study strategies for empowerment of women. • Examine the interface of different elements of media, society and development.
DSE16	Programme Design and Evaluation	4+2	<ul style="list-style-type: none"> • Develop an understanding of principles and process of program design and evaluation. • Will appraise about the various tools and techniques used for Program design and Evaluation • Create understanding about challenges, issues and strategies used in Monitoring & Evaluation

DSE 17	Apparel Marketing and Merchandising	4+2	<ul style="list-style-type: none"> • Describe the dynamics of fashion market environment • Discuss the marketing mix of the fashion industry • Describe the concept of fashion merchandising and fashion buying • Explain the concept of new product development • Explain the brand management concepts • Recognise and identify the global trends in fashion trade
DSE 18	Apparel Production	4+2	<ul style="list-style-type: none"> • Develop the skills used in pattern making and construction • Explain the preparatory steps involved in garment construction • Understand the use of components of a garment • Comprehend the concept of fit and designing for different figure types
Dse19	Ergonomic Design	4+2	Develop aptitude in identifying product/ space design problems at home and at work. Understand the human element and user perspective in the evolution of product/space design.
DSE20	Human Resource Management	4+2	<ul style="list-style-type: none"> • Understand the meaning and concept of Human resource management and development. • Identify and describe the functions of Human Resource Development. • Sensitized towards challenges of human resource managers.
DSE21	Space Planning and Design	4+2	<ul style="list-style-type: none"> • Understand the fundamentals of house planning and space articulation. • Identify building materials, construction techniques and technologies, and various interior services
DSE22	Physiology and Promotive Health	4+2	<ul style="list-style-type: none"> • Understand the physiology of all the systems of the human body. • Develop a holistic understanding of mental, reproductive and social health. • Develop the awareness of major communicable and non-communicable diseases

DSE23	Advertising and Public Relation	4+2	<ul style="list-style-type: none"> ● Develop understanding of the theory and processes of persuasive communication ● Envisage the discipline of public relations. ● Get familiarize and equip with a range of communication skills related to advertising and public relations. ● Able to use advertising as a tool for promotion of products, services and ideas. ● Will develop effective skills in public relations for organization's image building.
DSE26	Basics of Nutrition Epidemiology and Anthropology	4+2	<ul style="list-style-type: none"> • Understand the basic concept and scope of epidemiology. • Gain knowledge about various epidemiological methods and indicators. • Understand the epidemiology of major public health and nutrition problems • Utilise key indicators for development of public health interventions. • Apply vital statistics in understanding the patterns of disease occurrence in the community. • Understand the discipline of anthropology in relation to nutrition and health sciences. • Understand the community beliefs and perception in relation to malnutrition (rural and urban).
DSE 27	Commercial Clothing	4+2	<ul style="list-style-type: none"> • Describe the working of the garment industry • Develop commercial standard size blocks using principles of grading • Understand sourcing of fabric and procurement of other fashion material • Identify various tools and equipments necessary for garment construction • Construct various garments and its components • Select appropriate apparel and accessories for various age groups, sex etc. • Describe the role of fashion promotion

DSE 28	Pattern Making and Draping	4+2	<ul style="list-style-type: none"> Recall the use of various pattern making tools and its terminology Apply the principles of pattern making for basic upper and lower sloper, sleeves, collars and dresses Develop the basic bodice and skirt slopers by applying the technique of draping Manipulate the basic slopers to create design variations
SEC1	Home Based Catering	2	<ul style="list-style-type: none"> Comprehend fundamentals of menu planning through resource management in a food service establishment. Develop insight for recipe standardization and quantity food production. Upscale knowledge of preliminary steps for starting a food service unit. Apply acquired skills in menu planning and quantity food production
SEC2	Maternal and Child Nutrition	2	<ul style="list-style-type: none"> Understand the nutritional needs during pregnancy and lactation. Understand the relationship between maternal health and birth outcome. Understand the concept of infant and young child feeding practices. Gain an insight about existing maternal and child nutrition policies and programmes.
SEC3	Early Childhood Care and Development	2	<ul style="list-style-type: none"> Understand the early childhood care and development in India. Comprehend the model child development programs in the Indian context. Understand the planning and creating development and programmatic activities for children in the first six years of life
SEC4	Self Development and Well-Being	2	<ul style="list-style-type: none"> Demonstrate understanding of selfhood and be able to define parameters of wellbeing. Competent in developing and using culturally appropriate methods to promote wellbeing in adolescents. Acquire the knowledge to introspect as well as investigate the concept of selfhood in the contemporary everyday Indian context

SEC5	Training and Capacity Building	2	<ul style="list-style-type: none"> • Grasp an overview of the concept, methods and significance of training for development of human resource. • Aware about the concept and process of advocacy and planning an advocacy campaign. • Appreciate the use of Training & Capacity Building for social mobilization. • Develop skills in different training methods and techniques. • Get familiarize with the process of designing and evaluating training programmes.
SEC6	Advertising and Social Marketing	2	<ul style="list-style-type: none"> • Understand the relevance and methods of Communication Research • Explore the steps involved in media planning, message design and treatment • Knowledge of the advertising world and its role in society • Understand the key components of social marketing, marketing strategies, approaches and social marketing campaigns
SEC 7	Surface Ornamentation	2	<ul style="list-style-type: none"> • Recognise different surface ornamentation techniques • Understand fabric handling for surface ornamentation through application of different type of fabric cuts, thread removal and yarn manipulation. • Develop designs through various forms of colour application • Apply various surface layering techniques with fabrics • Create different products using skills and understanding of various surface ornamentation techniques
SEC 8	CAD in Textile and Apparel	2	<ul style="list-style-type: none"> • Understand basic concepts of CAD in textile design and fashion illustration • Apply various tools and techniques of Corel Draw and Adobe Photoshop • Develop and manipulate drawings through drawing and editing techniques • Produce textile design motifs, develop prints, fashion details and visual effects • Create a fashion collection according to a theme, utilising the various tools and techniques learned.

SEC9	Resources and Sustainable Development	2	<ul style="list-style-type: none"> • Build an inter-disciplinary perspective on sustainable development concerns and challenges. • Analyze constraints and opportunities in sustainable development. • Develop basic core competencies and practical skills required of a “generalist” development practitioner.
SEC 10	AutoCAD & Spatial Planning	2	<ul style="list-style-type: none"> • Design and audit residential and institutional spaces with respect to GRIHA and LEED assessment criteria. • Able to create sustainable built environment through knowledge of space dimensioning, interior zoning and building materials helps in creating • Proficient in the use of Computer Aided Design software for preparing interior space design layout.
SEC 11	Understanding Psychology	2	<ul style="list-style-type: none"> • Understand Psychology as a discipline, and its core concepts • Demonstrate understanding of fundamental psychological processes in human beings • Grasp models of behaviour, perception , memory and learning
SEC12	Computer Applications in Communication and Media Design	2	<ul style="list-style-type: none"> • Learning applications, analysis and interpretation of media design • Understand the scope of computer applications in media designing
SEC13	Information, Education and Communication Material for Development	2	<ul style="list-style-type: none"> • Learn about various types of IEC material • Understand the usage of IEC material for development. • Evaluate different types of IEC material. • Apply the process and techniques of developing IEC material
SEC16	Nutrition Health Communication	2	<ul style="list-style-type: none"> • Understand basic concepts and processes of nutrition and health communication • Comprehend Nutrition and Health communication in Indian and global perspective. • Apply acquired knowledge to community through observations and extension • activities.

SEC17	Biophysics	2	<ul style="list-style-type: none"> • Understand the basic aspects of biophysics. • Understand different biophysical phenomena and their applications in the field of nutrition. • Understand the principle and working of basic and advanced scientific equipment. • Gain knowledge of common clinical equipment. • Apply acquired skill in using the equipment effectively and efficiently.
SEC18	Life Skills Education	2	<ul style="list-style-type: none"> • Will develop social and interpersonal skills to cope with the demands of everyday life. • Build self confidence, encourage critical thinking to help communicate effectively. • Inculcate listening skills and handle stress.
SEC 21	Product Development in Textiles and Apparel	2	<ul style="list-style-type: none"> • Acquire skill necessary for concept development • Understand the process of design investigation, analysis, selection, development and fabrication • Undertake the economic analysis of the product • Gain hands on industry experience
SEC 22	Image Styling	2	<ul style="list-style-type: none"> • Describe the ways to strengthen physical image based on body type and facial features analysis • Understand the effect of elements and principles of design on clothing • Explain the fashion trends of garments and accessories • Recognise verbal and non-verbal communication etiquettes • Identify wardrobe elements, planning and organisation
SEC 23	Fashion Illustration	2	<ul style="list-style-type: none"> • Recognise various tools and terminology used in fashion illustration • Understand the basics of body proportion and balance • Apply creative skills in sketching fashion figures and rendering textures • Use garment details in designing theme based dresses
SEC 24	NGO Management & CSR	2	<ul style="list-style-type: none"> • Understand the nature and role of various organizations engaged in the development sector. • Strategies for creating resources for effective functioning of development organizations. • Understand the basic concepts of Corporate Social Responsibility (CSR) and linkages between various stakeholders

			<ul style="list-style-type: none"> • Learn from the CSR initiatives taken in India and internationally • Develop Corporate Social Responsibility initiatives of various corporate companies
GE1	Human Nutrition	4+2	<ul style="list-style-type: none"> • Understand the relationship between food, nutrition and health. • Understand the functions of food. • Comprehend the various food groups and concept of balanced diet. • Understand digestion, absorption and function of various nutrients and their sources. • Understand the physiological considerations and nutritional concerns during the various life stages.
GE2	Nutrition: Lifespan Approach	A 4+2	<ul style="list-style-type: none"> • Understand the principles of planning nutritionally adequate meals. • Understand the concept of nutrient requirements and methods involved in assessment of nutrient needs. • Exercise food choices consonant with good health based on sound knowledge of principles of nutrition. • Acquire knowledge about the nutritional needs and concerns of an individual through the life cycle
GE3	Entrepreneurship for Small Catering Units	4+2	<ul style="list-style-type: none"> • Comprehend fundamentals of menu planning through resource management in a foodservice establishment. • Develop insight for recipe standardization and quantity food production. • Use knowledge gained for starting a food service unit. • Application of acquired skills in menu planning and quantity food production. • Understanding the business planning process for a successful food catering unit
GE4	Current Concerns in Public Health Nutrition	5+1	<ul style="list-style-type: none"> • Understand the multi-faceted nature of nutritional problems. • Be aware of the various aspects of nutrition education and promotion. • Be familiar with the policy and intervention programmes operating in India to overcome malnutrition. • Understand the concept and determinants of food and nutrition security

GE9	Media, Culture and Society	5+1	<ul style="list-style-type: none"> • Gain knowledge of key theories, concepts, models and perspectives in the study of communication & media • Understand the relevance and roles of communication media in individual lives as well as in larger context of culture & society. • Analyse the relationships, dynamics, and trends within communication media, culture & society.
GE10	Gender, Media and Society	5+1	<ul style="list-style-type: none"> • Understand the concept, need, relevance and dimensions of gender empowerment. • Sensitize towards gender disparities/imbbalances and problems of women. • Develop an insight into issues and strategies at different levels for empowering women. • Recognize the media representation of gender and identify the stereotypes. • Determine the support system in the country for women's development
GE11	Behaviour Change Communication	4+2	<ul style="list-style-type: none"> • Understand the concept and approaches of Behaviour Change Communication (BCC). • Will gain an insights into the inter-linkages between communication approaches and behaviour change. • Learn the concepts of BCC to specific issues such as health and environment
GE12	Information and Communication Technologies for Development	4+2	<ul style="list-style-type: none"> • Develop skills in the use of traditional as well as modern media for the purpose of development. • Enhance the skills for analysing and appraising an ICT application. • Make competent users of ICT techniques who can make efficient, effective & creative use of basic application softwares in their everyday activities
GE 13	Fashion Design and Development	4+2	<ul style="list-style-type: none"> • Understand the basics of fashion design • Develop various fashion details for garment construction • Understand the concepts of fashion pre-costing and designing • Describe the functioning of Indian and global fashion industry

GE 14	Fashion Accessories	4+2	<ul style="list-style-type: none"> • Recognise the role and importance of fashion accessories in the apparel industry • Describe the various categories, styles and production methods of fashion accessories • Restyle and coordinate accessories with outfit using creative ideas • Identify essential steps in the process of accessory designing • Develop skills in creating fashion accessory
GE 15	Textile Care and Conservation	4+2	<ul style="list-style-type: none"> • Identify various textile fibres, fabrics and finishes through scientific and practical approaches and develop appropriate care and maintenance labels. • Describe and perform usage methods of water, soap, detergents, stiffening agents, whitening agents, and chemical reagents for the care of fabrics • Identify and describe the working of laundromats, drying equipments, ironing equipments and finishing machines used at the industrial level. • Adhere to current practices and ethics in conservation and identify conservation grade materials. • Deduce, develop and perform methods of conservation, handling, cleaning, display and storage of museum objects based on the study of various factors affecting textile stability.
GE 16	Appreciation of Textile Crafts	4+2	<ul style="list-style-type: none"> • Explain the role of craft persons • Identify traditional and modern textile crafts • Describe textile craft techniques of India • Explain cultural and economic significance of textile crafts in national economy
GE20	Training and Development	5+1	<ul style="list-style-type: none"> • Importance and scope of training for development- national and global perspectives. • Training and capacity building of stakeholders in development • Understand and critically evaluate the different training methodologies and their suitability for development goals. • Conceptualize the training process and understand the roles and functions of different phases of the training process.

B.Sc. HOME SCIENCE			
Course Code	Title	Credits	Course Outcomes
Ability Enhancement Compulsory Course – I	English Communications	4	<ul style="list-style-type: none"> • Understand the theory, fundamentals and tools of communication. • Develop skills to share thoughts, emotions and ideas through various means of communication (verbal and non-verbal). • Develop various speaking skills integral to personal, social and professional interactions. • Acquire important reading and writing skills. • Differentiate between personal and professional interactions.
Ability Enhancement Compulsory Course – II	Environmental Science	4	<ul style="list-style-type: none"> • Gain field based identification and importance of common biodiversity in their immediate surroundings (college campus). Students are regularly taken to various biodiversity parks for the same. • Calculate monetary cost of trees using direct and indirect method. • Develop observational skills based on relevant case studies of different ecosystems. • Develop skills to assess contemporary environmental issues through one-minute environmental news analysis followed by two-minute interactive session for every candidate. • Develop connection between various ecosystem services and learn various local, national and international developmental goals. • Relate environmental pollution with public health
CC1	Communication and Extension	4+2	<ul style="list-style-type: none"> • Develop understanding of concept of human communication and its components. • Learn the concept of extension and its inter - relationship with communication. • Understand the various tools and techniques in the process of communication. • Grasp understanding about various communication methods and media. • Develop skills in preparation, presentation and evaluation of

			select methods and media
CC 2	Resource Management	4+2	<ul style="list-style-type: none"> • Comprehend the fundamentals of resource management in changing scenario. • Inculcate skills in the identification, creation, selection and judicious use of available resources with emphasis on maximization and conservation. • Understand the processes of management in a scientific manner in the use of resources
CC 3	Fashion Studies	4+2	<ul style="list-style-type: none"> • Understand the terminology, role and functions of clothing • Acquire skill necessary for selection and evaluation of clothing • Develop understanding about the concept of fashion, its terminology, sources and factors affecting it • Understand the global fashion industry • Apply the elements and principles of design
CC 4	Fundamentals of Nutrition and Food Science	4+2	<ul style="list-style-type: none"> • Comprehend relationship between food, nutrition and health. • Understand the functions of food, various food groups, balanced diet and principles of meal planning. • Understand functions of various nutrients and their sources & gaining knowledge about clinical manifestations of excess/ deficiency of nutrients • Develop understanding about the methods of preparing food.
CC 5	Life Span Development I	4+2	<ul style="list-style-type: none"> • Demonstrate understanding and knowledge of development during the human life-span, from conception to middle childhood • Locate relevant examples of development in the cultural context, focussing on situatedness of childhood development in Indian culture • Skilled in using methods to study development in children, and explore family and community context of Indian children

CC 6	Fundamentals of Textiles	4+2	<ul style="list-style-type: none"> • Describe textile fibres in terms of their production and properties • Understand various production techniques and properties of yarns • Identify fabrics and relate it to specific products keeping in mind fabric properties and characteristics • Understand various dyeing, printing and finishing techniques
CC 7	Physical science	4+2	<ul style="list-style-type: none"> • Study different chemicals/compounds, their reactions and their applications in everyday life. • Acquire the ability to correlate structures of compounds with their properties and functions. • Understand basic principles of volumetric analysis, qualitative analysis, different equipment and develop experimental skills. • Learn basic principles, theories and laws of physics and correlate them with real life situations. • Understand working principle of different equipment and precautions to be taken while working with them. • Acquire skills to handle electrical appliances cautiously.
CC 8	Life Span Development II Theory	4+2	<ul style="list-style-type: none"> • Demonstrate understanding and knowledge of development during the human life-span, from adolescence to late adulthood • Locate and use relevant cultural examples of development during adolescence and different phases of adulthood • Skilled in using methods to study development and socio-cultural context of Indian adolescents and adults
CC 9	Nutrition for the Family	4+2	<ul style="list-style-type: none"> • Understand the principles of planning of nutritionally adequate meals. • Apply knowledge of principles of nutrition in exercising food choices consonant with good health • Develop understanding about the nutritional needs and concerns of an individual from childhood to adult years

CC 10	Life Sciences	4+2	<ul style="list-style-type: none"> • Acquire fundamental understanding of some contextual issues like genetically modified crops, human germ-line editing etc. • Develop a practical appreciation for the rich biodiversity of the college with importance of food web and subsequent strategies of biodiversity management. • Understand basics of genetics with concept of genetic counseling for better decision making. • Understand fundamentals of plant science and become aware in regard to concept of organic farming. • Learn and understand functional knowledge of plant propagation with it's practical applications.
CC 11	Personal Finance and Consumer Studies	4+2	<ul style="list-style-type: none"> • Gain knowledge of the changing socio-economic environment and consumer behavior. • Strengthen the financial management practices of the students for wise consumer behavior. • Apprehend the types of markets, changing concepts of markets, changes in socio-economic environment, and marketing strategies from consumer's perspective. • Comprehend issues related to consumer problems, consumer movement and consumer protection.
CC12	Communication Systems and Social Change	4+2	<ul style="list-style-type: none"> • Understanding of various communication systems. • Demonstrate various types communication transactions. • Insight into the range and scope of different mass media for social change
DSE 1A	Nutritional Biochemistry	4+2	<ul style="list-style-type: none"> • Develop an understanding of the principles of biochemistry. • Understand chemistry of major nutrients and physiologically important biomolecules. • Understand the biological processes and systems as applicable to nutrition. • Apply the knowledge acquired to human nutrition and dietetics.

DSE-1B	Public Nutrition and Dietetics	4+2	<ul style="list-style-type: none"> • Understand the principles of public nutrition and develop comprehension about multi-faceted nature of malnutrition problem • Develop skills for assessment of malnutrition at the community level. • Understand the principles of diet therapy • Understand modification of the normal diet for therapeutic purposes. • Understand the concept of dietary management in some common disorders / diseases.
DSE 2A	Children with Disabilities	4+2	<ul style="list-style-type: none"> • Demonstrate understanding and knowledge of the etiology and social demography of a wide range of childhood disabilities • Skills in assessment and evaluation processes associated with identification of childhood disabilities, therapy and inclusive education • Contribute towards the study and dissemination of information related to issues of disability advocacy and inclusion
DSE 2B	Child Rights and Gender Empowerment	4+2	<ul style="list-style-type: none"> • Demonstrate understanding of human rights of children in the contemporary global context • The student will possess the ability to identify contexts and needs of individuals and communities for gender sensitization and rights based interventions • Identify and use approaches for gender empowerment and creating rights based awareness in the everyday context
DSE 3A	Communication for Development	4+2	<ul style="list-style-type: none"> • Understand the concept of development and development communication. • Insights into measurement of development at the local and global level. • Examine the role of various media in development. • Understand the process and techniques of development reporting for various media.
DSE 3B	Extension Management	4+2	<ul style="list-style-type: none"> • Learn about concept and scope of extension in national development. • Understand the principles and process of program design and management. • Comprehend about the concept and process of advocacy. • Develop skills for using participatory approaches in

			<p>programme management.</p> <ul style="list-style-type: none"> • Able to interpret and evaluate an advocacy campaign for social mobilization
DSE 4A	Processes in Apparel Design	4+2	<ul style="list-style-type: none"> • Recognise the skills used in pattern making and construction • Explain the preparatory steps involved in garment construction • Understand the use of components of a garment • Comprehend the concept of fit and designing for different figure types
DSE 4B	Traditional Indian Textiles	4+2	<ul style="list-style-type: none"> • Identify and compare embroidered fabrics of different states • Explain construction and design of select traditional woven fabrics • Describe our heritage of varied dyed, painted and printed fabrics • Indicate/illustrate care and conservation of traditional textiles • Provide an insight into the evolution and socio economic significance of <i>khadi</i>, handloom and handicraft sectors • Discuss sustenance of traditional textile crafts and interventions by organisations • Analyse the textile arts in their historical perspective, the impact of modernisation and their contemporary status
DSE 5A	Entrepreneurship Development	4+2	<ul style="list-style-type: none"> • Understand the meaning and concept of entrepreneurship development for women. • Sensitized and oriented towards identifying entrepreneurial opportunities and market potential. • Gain knowledge setting up of an enterprise and its management.
DSE 5B	Basics of Design Application	4+2	<ul style="list-style-type: none"> • Comprehend the nuances of design with focus on interiors. • Proficient in working and presentation drawings to be used as a design professional. • Skilled in the use of Computer aided design to prepare interior plans. • Understand the use of various materials and finishes to create aesthetically designed interiors.

SEC 1	Sociology of Working with Families and Communities	2	<ul style="list-style-type: none"> • Conceptual understanding of wide-ranging and contemporary social processes and social institutions • Understand study of social mobility and social change, and the interrelationships of variables that define these processes • Learn emergent new ideological orientations in the sociological study of gender, family, workspaces, caste, minority, disability, violence, and immigration
SEC 2	Understanding Psychology	2	<ul style="list-style-type: none"> • Understand Psychology as a discipline, and its core concepts • Demonstrate understanding of fundamental psychological processes in human beings • Grasp of selected models of behaviour, perception, memory and learning
SEC 3	Overview of Indian Economy	2	<ul style="list-style-type: none"> • Apprehend the basic concepts of economics and their utilization in day to day life. • Comprehend the major economic problems of India and their implications on society. • Understand various policy measures adopted in the country.
SEC 4	Human Physiology	2	<ul style="list-style-type: none"> • Understand the physiology of all the systems of the human body. • Develop a holistic understanding of mental, reproductive and social health
SEC 5	Bakery Science	2	<ul style="list-style-type: none"> • Understand the fundamentals of baking • Understand the technologies behind bakery products. • Understand current industrial trends
SEC 6	Home Based Catering	2	<ul style="list-style-type: none"> • Comprehend fundamentals of menu planning through resource management in a food service establishment. • Develop insight for recipe standardization and quantity food production. • Upscale knowledge of preliminary steps for starting a food service unit. • Apply skills in menu planning and quantity food production.

SEC 7	Nutrition and Fitness	2	<ul style="list-style-type: none"> • Understand the relationship between physical fitness and nutrition • Develop insight about concepts and activities to increase individual health and wellness. • Apply fitness concepts to the wellness dimensions • Understand the concept of weight management in relation to fitness • Develop the ability to plan weight reducing diets
SEC 8	Early Childhood Care and Education	2	<ul style="list-style-type: none"> • Understand early childhood care and education in India • Comprehend model child development programs in the Indian context • Understand planning and creating development and programmatic activities for children in the first six years of life
SEC 9	Adolescents' Relations and Well-Being	2	<ul style="list-style-type: none"> • Demonstrate understanding of self-other relationships in adolescence and be able to define parameters of wellbeing • Competent in developing skills and using culturally appropriate methods to promote wellbeing in adolescents • Understand the concept of selfhood in the contemporary everyday Indian context
SEC 10	Training for Development	2	<ul style="list-style-type: none"> • Understand the importance and scope of training for development- national and global perspectives. • Appreciate the role of training and capacity building of stakeholders in development. • Understand and critically evaluate the different training methodologies and their suitability for different participant groups. • Conceptualize the process of designing different kinds of training programs.
SEC 11	Advocacy and Behavior Change Communication	2	<ul style="list-style-type: none"> • Understand the concept and approaches of Behaviour Change Communication (BCC). • Develop ability to analyze inter-linkages between communication approaches and behaviour change. • Understand the concepts and processes of advocacy for development and social change • Develop a BCC strategy for a given issue

SEC 12	Textile Design	2	<ul style="list-style-type: none"> • Describe fabric manipulation methods • Identify different methods of surface decoration • Explore designing through colour application • Indicate thread structure in textile designing • Describe an over view of surface layering • Develop products
SEC 13	Computer Applications in Fashion Design	2	<ul style="list-style-type: none"> • Understand basic concepts of CAD in textile design and fashion illustration • Apply various tools and techniques of Corel Draw and Adobe Photoshop • Develop and manipulate drawings through drawing and editing techniques • Produce textile design motifs, develop prints, fashion details and visual effects • Create a fashion collection according to a theme, utilising the various tools and techniques learned.
SEC 14	Resource Management and Sustainable Development	2	<ul style="list-style-type: none"> • Build an inter-disciplinary perspective on sustainable development concerns and challenges. • Analyze constraints and opportunities in sustainable development. • Develop basic core competencies and practical skills required of a “generalist” development practitioner.
SEC 15	Autocad and Space Planning	2	<ul style="list-style-type: none"> • Design and audit residential and institutional spaces with respect to GRIHA and LEED assessment criteria. • Able to create sustainable built environment through knowledge of space dimensioning, interior zoning and building materials helps in creating • Proficient in the use of Computer Aided Design software for preparing interior space design layout.
SEC 18	Computer Applications in Communication and Media Design	2	<ul style="list-style-type: none"> • Learn about the applications, analysis and interpretation of media design • Understand the scope of computer applications in media designing • Create media designs with the help of computer aided designing tools

SEC 19	Information, Education and Communication Material for Development	2	<ul style="list-style-type: none"> Analyze various types of IEC material for their design suitability for target audience. Understand the usage of IEC materials for development. Evaluate different types of IEC materials for their suitability. Apply the process and techniques of developing IEC material for a given situation
SEC 22	Nutrition Health Communication	2	<ul style="list-style-type: none"> Understand basic concepts and processes of Nutrition and health communication Comprehend nutrition and health communication in Indian and global perspective. Apply acquired knowledge to community through community outreach
SEC 23	Biophysics	2	<ul style="list-style-type: none"> Understands the basic aspects of biophysics. Understands different biophysical phenomenon and their applications in the field of nutrition. Understands the principle and working of basic and advanced scientific equipment. Gains knowledge of common clinical equipment. Applies acquired skill in using the equipment effectively and efficiently.
SEC 24	Life Skills Education	2	<ul style="list-style-type: none"> Develop their personal skill set to cope with the demands of everyday life. Design training programs for impacting life skills for various types of target group.
SEC 27	Product Development in Textiles & Apparel	2	<ul style="list-style-type: none"> Develop skills necessary for concept development Understand the process of design investigation, analysis, selection, development and fabrication Undertake the economic analysis of the product Gain hands on industry experience to the students

SEC 28	Image Styling	2	<ul style="list-style-type: none"> • Describe the ways to strengthen physical image based on body type and facial features analysis • Understand the effect of elements and principles of design on clothing • Explain the fashion trends of garments and accessories • Recognise verbal and non verbal communication etiquettes • Identify wardrobe elements, planning and organisation
SEC 29	Fashion Illustration	2	<ul style="list-style-type: none"> • Recognise various tools and terminology used in fashion illustration • Understand the basics of body proportion and balance • Apply creative skills in sketching fashion figures and rendering textures • Use garment details in designing theme based dresses
SEC 30	NGO Management & CSR	2	<ul style="list-style-type: none"> • Understand the nature and role of various organizations engaged in the development sector. • Understand the basic concepts of Corporate Social Responsibility (CSR) and linkages between various stakeholders • Critique and develop Corporate Social Responsibility initiatives

B. SC. HONOURS FOOD TECHNOLOGY

PROGRAM SPECIFIC OUTCOMES

1. Understand the concepts of different areas of food science and technology,
2. Understand the food composition and its physicochemical, nutritional, microbiological and sensory aspects.
3. Comprehend the processing and preservation techniques of cereals, pulses, oilseeds, spices, fruits and vegetables, meat, fish, poultry, milk & milk products.
4. Understand various concepts of food engineering, food packaging, food laws and regulations (national and international), food safety and quality assurance and food plant sanitation.

The course outcomes of the different papers offered are presented below. After completion of the course the student will be able to:

Course Code	Title	Credits	Course Outcomes
Ability Enhancement Compulsory Course – I	English Communications	4	<ul style="list-style-type: none">• Understand the theory, fundamentals and tools of communication.• Develop skills to share thoughts, emotions and ideas through various means of communication (verbal and non-verbal).• Develop various speaking skills integral to personal, social and professional interactions.• Acquire important reading and writing skills.• Differentiate between personal and professional interactions.
Ability Enhancement Compulsory Course – II	Environmental Science	4	<ul style="list-style-type: none">• Gain field based identification and importance of common biodiversity in their immediate surroundings (college campus). Students are regularly taken to various biodiversity parks for the same.• Learn to calculate monetary cost of trees using direct and indirect method.• Develop observational skills based on relevant case studies of different ecosystems.• Develop skills to assess contemporary environmental issues through one-minute environmental news analysis followed by two-minute interactive session for every candidate.• Develop connection between various ecosystem services

			<p>and learn various local, national and international developmental goals.</p> <ul style="list-style-type: none"> • Relate environmental pollution with public health
CC1	Fundamentals Of Food Technology	4+2	<ul style="list-style-type: none"> • Understand the history and evolution of food processing. • Comprehend the concept of structure, composition, nutritional quality and post harvest changes of various plant foods. • Understand the structure and composition of various animal foods.
CC 2	Principles Of Food Science	4+2	<p>Understand the basic concepts of</p> <ul style="list-style-type: none"> • Dispersions and colloids, Sensory evaluation • Waste disposal and sanitation • Packaging Materials
CC 3	Technology Of Food Preservation	4+2	<ul style="list-style-type: none"> • Comprehend the important microorganisms in food preservation • Comprehend the basics of various food processing and preservation technologies.
CC 4	Food Processing Technology	4+2	<p>Acquire basic knowledge of:</p> <ul style="list-style-type: none"> • Cold Preservation • Thermal and Non thermal methods of preservation • Packaging of food products
CC 5	Food And Nutrition	4+2	<ul style="list-style-type: none"> • Understand the relationship between food, nutrition and health. • Understand the functions of food. • Understand various food groups and balanced diet. • Understand digestion, absorption and function of various nutrients and their sources
CC 6	Technology Of Fruits, Vegetables And Plantation Crops	4+2	<ul style="list-style-type: none"> • Comprehend different methods of fruits and vegetable processing • Understand processing of spices, tea, coffee and cocoa

CC 7	Technology Of Dairy And Sea Food	4+2	<ul style="list-style-type: none"> • Understand the need and importance of dairy and fishery industry • Acquire the compositional and technological aspects of milk and fish • Understand the processing of milk and fish products
CC 8	Technology Of Cereals, Pulses And Oilseeds	4+2	<ul style="list-style-type: none"> • Comprehend technology of milling of various cereals • Understand the technical know-how of pulses and oilseeds refining
CC 9	Food Microbiology	4+2	<ul style="list-style-type: none"> • Understand the important genera of microorganisms associated with food and their characteristics. • Understand the role of microbes in fermentation, spoilage and food borne diseases.
CC 10	Technology Of Meat, Poultry And Egg	4+2	<ul style="list-style-type: none"> • Understand the need and importance of livestock, egg and poultry industry • Comprehend the structure, composition and nutritional quality of animal products. • Acquire the processing and preservation of animal foods. • Comprehend the preparation of various animal food products and byproduct utilization
CC 11	Food Engineering	4+2	<ul style="list-style-type: none"> • Understand the principle of Unit operation • Acquire the fundamentals of food engineering and its process • Understand the basics of designing of food plant and system
CC12	Food Chemistry – I	4+2	<ul style="list-style-type: none"> • Understand the chemistry of foods - composition of food, role of each component and their interaction. • Understand the functional aspects of food components and their role in food processing

CC 13	Food Chemistry – Ii	4+2	<ul style="list-style-type: none"> • Understand the chemistry of food components and their interactions. • Comprehend the role of enzymes and various processing treatments in food industry • Understand the concept of new product development
CC 14	Food Quality And Sensory Evaluation	4+2	<ul style="list-style-type: none"> • Understand basic quality attributes of raw and processed foods. • Understand the objective and subjective methods of sensory evaluation and their application in industry.
DSE 1	Food Safety	4+2	<p>Understand the different aspects of</p> <ul style="list-style-type: none"> • Food safety and hygiene • Types of hazards • Food laws and regulations • Design and implementation of food safety management systems
DSE 2	Food Quality Management	4+2	<ul style="list-style-type: none"> • Understand the quality management system of food production • Understand the various physical, chemical contaminants • Comprehend the latest trends and techniques in food quality management • Understand the significance of safe processing
DSE 3	Bakery Technology	4+2	<ul style="list-style-type: none"> • Understand the fundamentals of baking • Acquire the technologies of different bakery products. • Understand economics of bakery industry
DSE 4	Food Packaging	4+2	<ul style="list-style-type: none"> • Comprehend the overview of the scientific and technical aspects of food packaging. • Understand the packaging machinery, systems, testing, and regulations of packaging materials
DSE 5	Nutraceuticals And Functional Foods	4+2	<ul style="list-style-type: none"> • Understand the different nutraceuticals and functional foods • Understand the potential of various functional foods in promoting human health

DSE 6	Food Plant Sanitation	4+2	<ul style="list-style-type: none"> • Understand the design of plant and processing equipment. • Understand the waste product handling and management
SEC 1	Entrepreneurship Development	4+2	<ul style="list-style-type: none"> • Understand the meaning and concept of entrepreneurship development. • Sensitized and oriented towards identifying entrepreneurial opportunities and market potential. • Gain knowledge setting up of an enterprise and its management.
SEC 2	Food Product Development	4+2	<ul style="list-style-type: none"> • Understand the concept of development of a new product based on special dietary requirements, functionality, convenience and improvisation of existing traditional Indian foods
SEC 3	Food Fermentation Technology	2	<ul style="list-style-type: none"> • Understand the principles of food fermentation technology • Understand the type of starters used in Food Industry • Comprehend the production of various fermented food
SEC 4	Confectionary Technology	2	<ul style="list-style-type: none"> • Understand the status of confectionary industry in India • Understand the technology of confectionary products. • Comprehend the innovations in confectionary industry

DEPARTMENT OF FOOD AND NUTRITION

M.SC FOOD AND NUTRITION

PROGRAM SPECIFIC OUTCOMES

After completing the program, the student will be able to:

1. Understand the concepts of biochemistry, food chemistry and food microbiology
2. Comprehend methods of assessing human nutritional requirements, nutritional assessment and diet planning
3. Apply theoretical concepts in laboratory setting as per standard methods in the above mentioned areas
4. Understand the applications of nutritional sciences in clinical interventions, communication for health promotion, food service management, food science and processing
5. Acquire skills to undertake systematic research in the area of food science and nutrition.

COURSE OUTCOMES

SEMESTER I

THEORY

STATISTICS AND COMPUTER APPLICATIONS

Paper No. : 1101

Outcomes:

- Understand the basic statistical procedures for analysis of research data.
- Understand organization and summarization of data.
- Understand the applications of statistical techniques for analysis and interpretation.
- Use of selective softwares for qualitative and quantitative data analysis.

ADVANCED NUTRITIONAL BIOCHEMISTRY AND INSTRUMENTATION – I

Paper No. : 1111

Outcomes:

- Understand the mechanisms of regulation of metabolic pathways in human body.
- Gain insight into interrelationships between various metabolic pathways.
- Understand the mechanism of action of hormones.

- Understand the principles and techniques used for biochemical analysis.

PRINCIPLES OF FOOD SCIENCE

Paper No. : 1112

Outcomes:

- Understand the chemistry of food components like proteins, carbohydrates and lipids.
- Understand basic concepts of new food product development.
- Understand the food safety management system, National and International food laws and regulations.

ADVANCED HUMAN NUTRITION – I

Paper No. : 1113

Outcomes:

- Understand the historical perspective of nutrient requirements.
- Understand the methodology for derivation of requirements for specific macronutrients.
- Appreciate the interactions of nutrition, immunity and infection and their implications on the nutritional status of an individual.
- Be familiar with various measures to enhance nutritional quality of diets.
- Understand nutrient transition, its implications and emerging concepts in human nutrition.

PRACTICAL

Paper No : 1114

ADVANCED NUTRITIONAL BIOCHEMISTRY AND INSTRUMENTATION - I

Outcomes:

- Understand the use of colorimetry in biochemical estimations.
- Develop skills in chromatography.

PRINCIPLES OF FOOD SCIENCE

Outcomes:

- Understand the quality control of raw and processed food products.
- Develop skills to analyze commonly consumed raw and processed.
- Acquire skill in new product development and its package design, labelling and sensory evaluation.

ADVANCED HUMAN NUTRITION I

Outcomes:

- Understand the techniques of measuring energy expenditure in individuals.

- Assess the protein quality of diets and dishes.
- Acquire skills to conduct nutrient balance studies.

SEMESTER II

THEORY

RESEARCH METHODS AND SEMINAR

Paper No. : 1211

Outcomes:

- Understand research, its objectives, types, process and instruments of data collection.
- Comprehend the significance of research methods in food and nutrition.
- Understand research designs and their application in nutrition research.
- Develop competence in drafting research proposal and scientific writing.

ADVANCED NUTRITIONAL BIOCHEMISTRY AND INSTRUMENTATION- II

Paper No. : 1212

Outcomes:

- Understand the organization, synthesis and role of genetic material.
- Acquire knowledge on DNA recombinant technology.
- Comprehend the principles and use of instruments used for protein and DNA analysis and application of radioisotopes.

FOOD MICROBIOLOGY AND FOOD SAFETY

Paper No : 1213

Outcomes:

- Understand microbial food spoilage, food infections and intoxications.
- Understand the beneficial role of microbes used in food biotechnology (food fermentation and various food processing industries).
- Understand principles of various techniques used in the prevention and control of the microorganisms in foods (food preservation) .
- Understand the principles of GMP and HACCP.

ADVANCED HUMAN NUTRITION II

Paper No. : 1214

Outcomes:

- Understand the methodology for derivation of requirements for specific micronutrients.
- Comprehend how the nutritional requirements change in special conditions.
- Identify the critical periods in growth and development and understand the impact of malnutrition on them.
- Understand the various methods of assessment of nutritional status.

PRACTICAL

Paper No : 1215

Outcomes:

ADVANCED NUTRITIONAL BIOCHEMISTRY AND INSTRUMENTATION II

- Apprehend principles of buffers and gain competence in their preparation.
- Acquire skill in spectrophotometric method of quantitative estimations of biomolecules.
- Attain competence in electrophoresis.

FOOD MICROBIOLOGY AND FOOD SAFETY

- Familiarize with the techniques used for cultivation and purification of microbes.
- Acquire skill in microbiological analysis of water, milk, canned product, fruit juices and street foods.
- Acquire competence on the techniques used for identification of different pathogenic microbes.

ADVANCED HUMAN NUTRITION II

- Use techniques for the analysis of nutrients in foods.
- Assessment of nutritional status of individuals.

SEMESTER III

THEORY

THERAPEUTIC NUTRITION

Paper No. : 1311

Outcomes:

- Understand the causative factors and metabolic changes in various diseases/disorders.
- Understand the nutrition assessment, planning, implementation, monitoring and follow up in nutrition care process
- Acquire knowledge on the principles of diet therapy.
- Comprehend principles of dietary counseling.
- Understand the rationale of prevention of various diseases/disorders.

SPECIALIZATION A -PUBLIC NUTRITION

Paper No. : 1312 (a)

Outcomes:

- Understand the concepts of public nutrition and health care and delivery systems.
- Understand the causes and consequences of nutritional problems in the community and national health care delivery system.
- Understand the national health care delivery system.
- Comprehend the strategies for improving the nutritional status of communities.

- Understand the concept of food and nutrition security.
- Acquire knowledge on the various Government programmes aimed at improving health and nutritional status of the population.

INSTITUTIONAL FOOD MANAGEMENT

Paper No. : 1313 (a)

Outcomes:

- Develop a knowledge base about the different types of food service units and its evolution.
- Understand the principles and theories of management and organization in a food service unit.
- Understand and manage human resources in food service organization.
- Comprehend various areas of food production, storage and delivery in a food service organization.

PRACTICAL

Paper No : 1314 (a)

Outcomes:

THERAPEUTIC NUTRITION

- Familiarize with commonly available nutritional supplements and enteral and parenteral formulas.
- Plan and prepare suitable therapeutic diets based on patient needs for various diseases/disorders.
- Acquire knowledge on dietary counseling for prevention / treatment of various diseases / disorders.
- Skills to prepare special therapeutic / health foods.

PUBLIC NUTRITION

- Plan and prepare low cost nutritious dishes / menus for vulnerable groups.
- Develop skills in preparation of communication aids and planning nutrition education programme for the community.
- Acquire knowledge on the ongoing national nutrition programmes.

INSTITUTIONAL FOOD MANAGEMENT

- Understand the operations of food service units.
- Acquire knowledge about products and their price in market.
- Develop skills to plan menus for various food service organizations within specific budgets.
- Standardize recipes for quantity cooking.

SPECIALISATION B- PUBLIC HEALTH NUTRITION

Paper No. : 1312 (b)

Outcomes:

- Understand the concept of public health nutrition.
- Acquire knowledge on the national health care delivery system.
- Understand the current concerns in public health nutrition.
- Understand the demographic transition and its implications on the quality of life.
- Understand the economic consequences of malnutrition.
- Develop the strategies for improving the nutritional status of communities.

PROGRAMME PLANNING IN PUBLIC HEALTH NUTRITION

Paper No. : 1313 (b)

Outcomes:

- Understand the process of planning, implementation and evaluation of public health nutrition programmes.
- Understand the concept of nutrition monitoring and nutrition surveillance.
- Understand the nutritional problems during emergencies / disasters as well as the strategies to tackle them.

PRACTICAL

Paper No : 1314 (b)

Outcomes:

THERAPEUTIC NUTRITION

- Familiarize with commonly available nutritional supplements and enteral and parenteral formulas.
- Plan and prepare suitable therapeutic diets based on patient needs for various diseases/disorders.
- Understand dietary counseling for prevention / treatment of various diseases / disorders.
- Acquire knowledge on special therapeutic / health foods.

PUBLIC HEALTH NUTRITION

- Plan and prepare low cost nutritious dishes and menus for vulnerable groups.
- Develop skills in analyzing nutritional assessment data.
- Understand the field level functioning of the ongoing national public health nutrition programmes.

PROGRAMME PLANNING IN PUBLIC HEALTH NUTRITION

- Comprehend methods to assess the health and nutrition needs of the community.

- Acquire skills to design an action plan for addressing a public health nutrition problem in the community.

SPECIALISATION C- FOOD PROCESSING - I

Paper No. : 1312 (c)

Outcomes:

- Acquire systematic knowledge of basic and applied aspects in food processing and technology.
- Understand food composition and its physicochemical, nutritional and sensory aspects.
- Acquire knowledge on processing and preservation techniques of cereal and cereal products and meat and meat products.
- Acquire skills to optimize process parameter for consistent quality processed food products.

ADVANCED FOOD SCIENCE -I (Theory)

Paper No. : 1313 (c)

Outcomes:

- Understand the concepts of unit operations in processing.
- Understand the principles of food preservation and its application.
- Understand the nature of various food products constituents, additives and adulterants.

PRACTICAL

Paper No : 1314 (c)

Outcomes:

THERAPEUTIC NUTRITION

- Plan and prepare suitable therapeutic diets based on patient needs for various diseases/disorders
- Understand dietary counseling for prevention / treatment of various diseases / disorders.
- Acquire knowledge on special therapeutic / health foods.

FOOD PROCESSING - I

- Understand the raw material analysis and their processing technology used in different product development.
- Understand the processing technologies of different products and concept of product optimization.

ADVANCED FOOD SCIENCE-I

- Acquire knowledge in application of various physical and chemical parameters of raw and processed food products.
- Understand and analyze the various food products constituents, additives and adulterants.

INTERNSHIP

Paper No. : 1315 (a)

Outcomes:

- Gain hands on experience of working in various institutions related to the area of Food and Nutrition.

DISSERTATION

Paper No. : 1315 (b)

Outcomes:

- Acquire skills to undertake systematic research work in Semester III and submit the dissertation at the end of Semester IV.

SEMESTER IV

SPECIALISATION A-ADVANCED CLINICAL NUTRITION (Theory)

Paper No. : 1411 (a)

Outcomes:

- Understand the etiology, pathophysiology and metabolic anomalies of acute and chronic disorders / diseases.
- Understand the effect of various disorders / diseases on nutritional status, nutritional and dietary requirements.
- Acquire skills to recommend and provide appropriate nutrition care for prevention and treatment of various disorders / diseases.
- Acquire knowledge on recent advances in Medical Nutrition Therapy (MNT) for various diseases.

CHALLENGES IN CLINICAL NUTRITION

Paper No. : 1412 (a)

Outcomes:

- Understand the concepts & contents of nutrition communication and communication methods for behavior change.
- Understand the common nutritional & dietary concerns /problems and nutritional requirements of special groups.
- Acquire skills to recommend and provide appropriate nutrition care for these groups.
- Understand the nutrition for physical fitness and sports performance.

- Acquire knowledge on recent advances in nutrition care, preventive and/or therapeutic aspects of these areas.

ENTREPRENEURSHIP IN FOOD SERVICE

Paper No. : 1413 (a)

Outcomes:

- Develop a knowledge base about the physical facilities needed for different types of food service units.
- Acquire skills to manage the financial aspects in food service units.
- Understand the practical aspects in maintenance of sanitation and safety in units.
- Acquire skills to develop marketing strategies.
- Acquire skills to start their own food service unit as entrepreneurs.

PRACTICAL

Paper No : 1414 a

Outcomes:

ADVANCED CLINICAL NUTRITION - I

- Develop skills in nutritional diagnosis, planning and providing suitable preventive/therapeutic diets for various diseases / disorders.
- Provide effective dietary counseling for these disorders.
- Acquire knowledge on the various commercial nutritional therapeutic products available in India.

CHALLENGES IN CLINICAL NUTRITION

- Develop skills in interviewing & dietary counseling, individualized & group, for various disorders studied.
- Design & develop effective diet counseling & self care material (Project).
- Acquire competence in planning & preparation of diets for pediatric disorders.
- Acquire knowledge on commercial nutritional products for physical fitness & sports performance available in India.

ENTREPRENEURSHIP IN FOOD SERVICE MANAGEMENT

- Understand the practical operations of some food service units.
- Acquire knowledge about handling operations in different catering units.
- Acquire skills to develop suitable products for different situations.
- Acquire knowledge about some regional and international cuisines.
- Understand the procedures involved in training and sales promotion.

SPECIALIZATION B -PUBLIC HEALTH ASPECTS OF MALNUTRITION

Paper No. : 1411 (b)

Outcomes:

- Understand the principles of nutritional epidemiology and its importance in public health.
- Understand the prevalence and determinants of community's nutritional/ health problems.
- Acquire knowledge on the public health implications of various nutritional problems and the strategies to overcome the same.

PROGRAMMES AND POLICIES FOR FOOD AND NUTRITION SECURITY

Paper No. : 1412 (b)

- Understand the concept of food and nutrition security.
- Acquire knowledge on the national / public sector policies and programmes for improving food and nutrition security.
- Understand some successful development programmes in attaining nutrition security

NUTRITION COMMUNICATION FOR HEALTH PROMOTION

Paper No. : 1413 (b)

Outcomes:

- Understand the national/international dietary guidelines addressing nutrition and health aspects.
- Understand the determinants of food behaviour.
- Acquire skills to plan, implement and evaluate behaviour change communication for promotion of nutrition and health among the vulnerable groups.
- Understand the concept of nutrition advocacy.

PRACTICAL

Paper No : 1414 b

Outcomes:

PUBLIC HEALTH NUTRITION

- Develop skills in preparation of communication strategies and communication aids for nutrition / health promotion of the community.
- Acquire skills to plan, implement and evaluate nutrition education programme for the community.
- Acquire knowledge to prepare an evaluation plan for a public health nutrition programme.
- Acquire skills to implement and evaluate an action plan for a public health nutrition programme in the community.

SPECIALIZATION C-FOOD PROCESSING - II (Theory)

Paper No. : 1411 (c)

Outcomes:

- Understand the systematic knowledge of basic and applied aspects of food processing and technology.
- Understand food composition and its physico chemical, nutritional and sensory aspects.
- Acquire knowledge about processing and preservation techniques of milk and milk product technology and fruits and vegetable technology.
- Acquire knowledge about industrial processing of legumes and oil seeds.

ADVANCED FOOD SCIENCE - II (Theory)

Paper No. : 1412 (c)

Outcomes:

- Understand the concepts of various unit operations in processing methods.
- Understand the principles of food preservation and its application.
- Understand the various post processing operations important from industrial point of view.

APPLIED FOOD MICROBIOLOGY

Paper No. : 1413 (c)

Outcomes:

- Understand the microbial flora associated with food.
- Acquire knowledge on novel methods of food preservation.
- Understand the relevance of microbiological safety of food.
- Understand the conventional and rapid methods for detection of food borne pathogens and their toxins.

PRACTICAL

Paper No : 1414 (c)

Outcomes:

FOOD PROCESING - II

- Understand the processing and preservation technologies using in milk and milk products and fruits & vegetable products.
- Acquire knowledge of process optimization.

ADVANCED FOOD SCIENCE - II

- Acquire knowledge in application of various unit operations and understand the quantitative analysis of food constituents and trace elements.
- Understand food analysis using advanced techniques.
- Understand basic techniques in composition and analysis of foods.

APPLIED FOOD MICROBIOLOGY

- Develop competence to cultivate microorganisms.
- Acquire the knowledge on isolation of various microorganisms commonly associated with foods.
- Competence in environmental monitoring of a food manufacturing unit.

DISSERTATION

Paper No. : 1415

Outcomes:

- Acquire skills to undertake systematic research work in Semester III and submit the dissertation at the end of Semester IV.

POST GRADUATE DIPLOMA IN DIETETICS AND PUBLIC HEALTH NUTRITION

PROGRAM SPECIFIC OUTCOMES:

1. Understand fundamentals of human physiology, food microbiology and nutritional biochemistry in relation to health and disease.
2. Develop understanding about nutrition in disease management, its prevention through various government programmes and policies.
3. Develop skills in food management for entrepreneurship.
4. Apply acquired skills in diet therapy, food service management, nutrition/health education and scientific writing.
5. Apply the principles of medical nutrition therapy and food service management in a hospital set up.

SEMESTER 1

Course name – Human Physiology

Course credit - 4/week

Outcome –

1. Understand the current state of knowledge of normal functioning of the human systems
2. Correlate physiology with various health disorders and their pathogenesis.

Course name- Therapeutic Nutrition I

Course credit - 4 periods/ week

Outcome –

1. Understand the etiology, pathophysiological and metabolic anomalies of acute and chronic disorders / diseases.

2. Understand the effect of various disorders / diseases on nutritional status, nutritional and dietary requirements.
3. Develop skills to recommend and provide appropriate nutrition care for prevention and treatment of various disorders / diseases.
4. Comprehend recent advances in Medical Nutrition Therapy (MNT)

Course name - Public Health Nutrition

Course credit- 4/week

Outcome –

1. Understand the concept of Public Health Nutrition.
2. Comprehend the National Health Care Delivery System.
3. Understand the causes and consequences of nutritional problems in the community.
4. Be familiar with the methodologies applied in nutritional assessment of individuals and communities.

Course name - Food Service Management

Course credit - 4/week

Outcome –

1. Understand the different kinds of Food service units & systems.
2. Understand the principles of organization and management.
3. Comprehend various areas of food production.
4. Be familiar with principles of personnel management.

PRACTICAL - Semester I

Course A - Therapeutic Nutrition I

Course credit- 3/week

Outcome –

1. Develop insight for assessment of nutritional status and nutritional needs of patients.
2. Understand the planning and preparation of therapeutic diets for various diseases or disorders.
3. Use dietary counseling techniques for prevention and treatment of various diseases or disorders.

Course B - Public Health Nutrition

Course credit - 3/week

Outcome-

1. Plan and prepare low cost nutritious dishes and menus for vulnerable groups.
2. Assess nutritional status using different techniques.
3. Understand the national health care delivery system.

Course C- Food Service Management

Course credit - 3/week

Outcome-

1. Understand the dynamics of market through survey.
2. Comprehend the working of units through observation.
3. Plan menus for events within specified budgets.

Course D: Seminar

Course credits: 1/week

Outcome-

1. Develop preliminary insight for research papers.
2. Comprehend a scientific paper's objectives, results and its application in Indian context.
3. Acquire skills in presenting a scientific paper.

SEMESTER II

Course Name - Nutritional Biochemistry

Course credit - 4 periods/week

Outcome –

1. Augmentation of biochemistry knowledge acquired at the undergraduate level.
2. Understand the mechanism adopted by the human body for regulation of metabolic pathways.
3. Develop insight into interrelationships between various metabolic pathways.
4. Comprehension of biochemistry in nutritional management.

Course name - Therapeutic Nutrition II

Course credit - 4 periods/ week

Outcome-

1. Understand the etiology, pathophysiological and metabolic anomalies of acute and chronic disorders / diseases.
2. Understand the effect of various disorders / diseases on nutritional status, nutritional and dietary requirements.
3. Recommend and provide appropriate nutrition care for prevention and treatment of various disorders / diseases.
4. Be updated about recent advances in Medical Nutrition Therapy (MNT).

Course name - Perspectives in Food and Nutrition Security

Course credit - 4/week

Outcome –

1. Understand the concept of Nutrition Security
2. Gain an insight into various approaches and strategies for combating malnutrition
3. Understand the various Government programs and policies aimed at improving the health and nutritional status of the population.
4. Develop insight in planning, implementing, monitoring and evaluating nutrition programmes.

Course name - Food Service Management & Food Microbiology

Course credit -- 4 /week

Outcome-

1. Develop a knowledge base about the physical facilities needed for different types of food service units
2. Expertise to manage the financial aspects in the units.
3. Understand various groups of microbes.
4. Understand the importance of microorganisms in food i.e. food spoilage, food fermentation and causing food borne infections.
5. Develop insight about the techniques used for cultivation and purification of microbes
6. Understand the concept of food safety and quality control.
7. Apply knowledge in maintenance of sanitation and safety in units.

PRACTICAL – Semester II

Course A: Therapeutic Nutrition II

Course Credit - 3/week

Outcome-

1. Plan and prepare therapeutic diets for various diseases / disorders
2. Conduct dietary counseling for prevention and treatment of various diseases / disorders
3. Apply new technologies in nutrition care
4. Develop special dietetic foods

Course B: Perspectives in Food and Nutrition Security

Course credit - 3/week

Outcome-

1. Be familiar with ongoing national nutrition programmes
2. Plan and implement interventions for nutritional improvement of the community

Course C: Food Service Management & Food Microbiology

Course credit - 3/week

Outcome-

1. Understand the importance of layout and equipment in food service units
2. Develop skills to function as food service manager
3. Assess the safety and sanitation of food service units
4. Manage a canteen or other enterprise

Course D: Seminar

Course Credits: 1/week

Outcome:

1. Comprehend research papers into scientific knowledge.
2. Develop skills in scientific report writing.
3. Acquire skills in presenting a scientific review.

COMPULSORY INTERNSHIP

Outcome:

1. Acquire skills in diet therapy, food service management and nutrition/health education.
2. Apply principles of medical nutrition therapy and food service management in a hospital set up.

DEPARTMENT OF DEVELOPMENT COMMUNICATION AND EXTENSION

M.SC. DEVELOPMENT COMMUNICATION AND EXTENSION

Program Specific Outcome

The Department of Development Communication and Extension endeavors to prepare development professionals and researchers who would be leaders in creating sustainable communities for tomorrow.

- Students are trained in planning, implementation, monitoring and evaluation of development programmes and projects.
- Students are sensitized to elements of community organization and their mobilization for development goals
- Students develop skills in training and capacity building of different stakeholder groups involved in development
- Students are enabled to critique, propose and formulate Behaviour Change Communication strategies.
- Policy and media advocacy skills help students to gain a professional edge.
- Students are trained as professional in the field of media message designing and development
- Students develop skills in building media relations, social marketing and cause related advertising

SEMESTER I

1101 Statistics & Computer Applications

Outcomes

1. Learn basic statistical procedures for research in development communication and extension
2. Learn application, analysis and interpretation of statistical procedures
3. Understand the scope of computer applications in research

1152 Community Organisation & Extension Systems

Outcomes

1. Understand the organization and structure of different types of communities.
2. Discuss the dynamics of change in the community
3. Interpret development programmes from their socio-economic and cultural perspective to sensitize students to elements of community organization and their mobilization for development goals.
4. Differentiate between various Extension systems at national and global level.

1153 Communication Systems: Theory & Perspectives

Outcomes

1. Understand the scope and nature of different communication systems.
2. Learn the theories and perspectives about communication for social change.
3. Become aware of the psycho-social aspects of behaviour change communication

1154 Socio-Economic Environment and Sustainable Development

Outcomes

1. Understand the socio-economic structure of communities
2. Identify the problems of Indian economy
3. Comprehend the concept and aspects influencing sustainable development.
4. Understand polices of development and their impact on communities

1155 Dialoguing Change

Outcomes

1. Understand the scope and range of oral and visual communication media.
2. Develop skills in designing and use of oral and visual communication media on contemporary development issues for different client groups.
3. Develop skills in using Participatory tools and techniques for need assessment.
4. Acquire skills for working with diverse community groups

SEMESTER II

1251 Research Methods & Seminar

Outcomes

1. Understand the purpose and procedure for research
2. Learn the basic format of a research design
3. Understand different types of research studies
4. Acquire skills for writing and evaluating research papers and proposals

1252 Gender & Development

Outcomes

1. Understand the concept, need, relevance and dimensions of gender and development.
2. Comprehend gender differentials and problems of women.
3. Analyse the approaches for gender equity
4. Critique the policies and programmes for women's development in the Indian and Global context.

1253 Programme Development & Evaluation

Outcomes

1. Understand the key issues of extension management of programmes.
2. Become aware of the aspects influencing design of development programmes.
3. Understand the relationship between the aspects and procedures involved in programme planning, monitoring and evaluation.

4. Critique different models and approaches being used in programme monitoring and evaluation.

1254 Development Communication & Journalism: Theory & Practice

Outcomes

1. Understand the concept, role and context for development communication for social change.
2. Build an understanding of the concept, scope and theories of development communication and development journalism.
3. Examine the interface of different elements of media, society and development.
4. Critical analysis of traditional mass and new media for development.

1255 Technologies & skills for Planned Change-I

Outcomes

1. Develop skills in extension programme planning, implementation and evaluation
2. Critique different monitoring and evaluation strategies being used by development agencies.
3. Develop an understanding of the radio as a media of communication: research, planning, and production.
4. Develop writing skills for radio documentaries, features and news broadcasts.
5. Develop skills for producing radio features, documentaries and radio news reports, anchoring, commentary and other radio formats.

SEMESTER III

1351 Organizational Management & Training

Outcomes

1. Understand the nature and role of various organizations engaged in the development sector.
2. Know the various strategies for creating resources for effective functioning of development organizations.
3. Conceptualize the training process and understand the approaches and techniques.
4. Critically evaluate the different training strategies and their role in promoting development.

1352 Advocacy & Behavior Change Communication:

1352(a) Health

Outcomes

1. Examine the social development of community and public health.
2. Develop a holistic understanding of sociology of health and people's perception towards health.
3. To be able to critique policies, intervention programmes, and strategies adopted for addressing health issues.
4. Understand the scope and application of Social Behavioral Change Communication for health concerns.

1352(b) Environment

Outcomes

1. Become aware of the issues and perspectives influencing environmental sustainability.
2. Understand the dimensions of environmental problems and associated hazards and risks.
3. To be able to critique policies, programmes and strategies for environmental management and their ethical implications.
4. Understand the scope and application of Social Behavioral Change Communication for environment sustainability.

1352(c) Peace & Human Rights

Outcomes

1. Develop sensitivity to the issues and significance of conflict in communities
2. Understand the relationship between conflict, peace and development process.
3. Understand the scope of different techniques and strategies for conflict resolution and peace.
4. Understand the scope and application of Social Behavioral Change Communication for peace and human rights.

1352(d) Consumption & Public Policy

Outcomes

1. Be familiar with the inter-linkages between changing economic environment, consumption practices and sustainable development.
2. Gain an overview of consumption behaviour of families and communities and its impact on national and global resources.
3. Understand consumers role, rights, and responsibilities as Indian and global citizens in promoting sustainable consumption and sustainable development.
4. Understand the scope and application of Social Behavioral Change Communication for sustainable consumption and public policy.

1353 Communication Research, Advertising & Social Marketing

Outcomes

1. Understand the relevance and methods of Communication Research.
2. Explore the steps involved in media planning, message design and treatment.
3. Gain insights of the advertising world and its role in a developing society.
4. Comprehend the key components of social marketing, marketing strategies, approaches and campaigns.

1354 Technologies & skills for Planned Change-II

Outcomes

1. Develop an understanding of the video as a media of communication: research, planning, and production.
2. Develop writing skills for video documentaries, features and news broadcasts.
3. Develop skills for producing video features and documentaries.
4. Understand and critically evaluate the different training methodologies and their suitability for development goals.
5. Be able to conceptualize the training process and understand the roles and functions of different phases of the training process.

1355 (a) Internship

Outcomes

Gain hands-on experience of working with organizations working in the domain of development, media research and advocacy.

1355 (b) Dissertation

Outcomes

1. Develop skills to conduct an independent primary research in the area of Development Communication and Extension.
2. Apply tools and techniques for data coding, analysis and graphic representation using digital packages.
3. Document and dissemination the research.

SEMESTER IV

1451 Media Management

Outcomes

1. Understand the need and scope of media as an industry and profession.
2. Gain a comprehensive overview of management processes in the media industry.
3. Understand various management functions within media organisations.

1452 Livelihood Systems & Entrepreneurial Development

Outcomes

1. Beware aware of the different livelihood systems and recognize the aspects influencing their sustainability.
2. Understand the different strategies for enhancing livelihood sustainability.
3. Learn techniques of entrepreneurship development and management.

1453 (a) Rural marketing

Outcomes

1. Understand the concept of rural marketing and models consumer behaviour.
2. Comprehend the strategies involved in rural marketing.
3. Learn the scope of ICTs in rural marketing.

1453 (b) Corporate Communication & Public Relations

Outcomes

1. Study the role and function of corporate communication and public relations for effective functioning of the organisations.
2. Explore strategies used by corporates to communicate with key stakeholders.
3. Identify and assess strategies and use of media for publicity and building public relations.

1453 (C) Corporate Social Responsibility

Outcomes

1. Understand the concepts of Corporate Social Responsibility (CSR) and linkages between various stakeholders
2. Learn the CSR initiatives of organizations in Indian and abroad.
3. Develop a proposal for Corporate Social Responsibility initiatives of corporate working in the development sector.

1453 (d) Urban Governance & Civil Society

Outcomes

1. Learn the concept and functioning of civil society.
2. Identify the constraints in the effective performance of civil society.
3. Understanding the role of various styles of governance.

1454 Technologies & Skills for Planned Change II

Outcomes

1. Understand the potential and application of Information and Communication Technologies and New Media in the development sector.
2. Develop skills in evaluating, designing and use of Information and Communication Technologies and New Media for disseminating and advocating contemporary development issues amongst different client groups.
3. Create e-portfolio of student's resumes and products.

DEPARTMENT OF HUMAN DEVELOPMENT AND CHILDHOOD STUDIES

M.SC HUMAN DEVELOPMENT AND CHILDHOOD STUDIES

Program Specific Outcomes

- ❖ Understand emergent issues in Human development and Childhood studies with respect to the human life span and culture
- ❖ Demonstrate the ability to transact knowledge of childhood development and culture within everyday social contexts and workspaces
- ❖ Contribute to conceptualization and implementation of social development programs for children, women, youth, persons with disabilities and individuals in late adulthood
- ❖ Acquire competence in planning, mediating and liaising early childhood development programs and programs for persons with disability
- ❖ Acquire skills in research and scientific writing and contribute to the existing corpus of research literature in the field

SEMESTER I

Paper No.: 1101 STATISTICS AND COMPUTER APPLICATIONS

Course outcomes

1. Possess knowledge of basic statistical procedures for research
2. Understand the statistical techniques for analysis and interpretation
3. Competent in using selective software for qualitative and quantitative data analysis

Paper No.: 1132 HISTORY AND THEORIES OF HUMAN DEVELOPMENT - I

Course outcomes:

1. Comprehend with the history of the study of human development
2. Comprehend the cultural notions of children and childhood
3. Understand the human development and childhood in an interdisciplinary context

Paper No.: 1133 PRINCIPLES OF DEVELOPMENT 1

Course outcomes:

1. Gain advanced knowledge of developmental processes and principle
2. Understand the importance of biological bases in human development
3. Contemporary concerns in the study of development

Paper No.: 1134 DIVERSITY, DISADVANTAGE AND INCLUSION

Course outcomes:

1. Understand the diversity and plurality of childhood in India
2. Gain knowledge of the status of children in India
3. Acquire skills to critically analyze the concerns related to specific group
4. Understand the processes and principles of 'rights based programming'

METHODS FOR THE STUDY OF HUMAN DEVELOPMENT AND CHILDHOOD STUDIES

Course outcomes:

1. Acquire a repertoire of skills for working with children and relevant adults in different contexts
2. Develop techniques and methods suited to different and various situations and contexts
3. Familiar with selected standardised tests/protocols for the study including assessment of individuals, families/settings
4. Develop skills in recording fieldwork

SEMESTER II

Paper No.: 1231 RESEARCH METHODS AND SEMINAR

Course outcomes

1. Understand the purpose and procedure of research
2. Understand the varied approaches to research
Learn the basic format of a research design and process
3. Demonstrate the ability to learn how to write research proposals and develop presentation skills

Paper No.: 1232 HISTORY AND THEORIES OF HUMAN DEVELOPMENT - II

Course outcomes:

1. Demonstrate the ability to reflect on the historical and philosophical traditions and theories of development
2. Appreciate the task of knowledge construction with reference to human development and childhood studies
3. Learn about the different theories of development
4. Develop skills for critical appraisal and construction of theories of development

Paper No.: 1233 PRINCIPLES OF DEVELOPMENT 11

Course outcomes:

1. Gain advanced knowledge of developmental processes and principles
2. Understand the importance of culture in human development
3. Explore the critical areas in the study of development and change

Paper No.: 1234 EARLY CHILDHOOD DEVELOPMENT: CARE AND EDUCATION

Course outcomes:

1. Gain knowledge of the contemporary emergence and positioning of Early Childhood Care and Education
2. Understand the theoretical and analytical framework for effective implementation and assessment of early childhood development
3. Acquire local and global knowledge about approaches, methods and programmes fostering optimal growth of young children
4. Familiar with the principles of pedagogy and curricular framework in ECD programmes

EARLY CHILDHOOD DEVELOPMENT: CARE AND EDUCATION

Course outcomes:

1. Understand community orientations towards familial and non-familial early childhood care and education
2. understand ways to address socio-cultural diversity through local and global methods and practices
3. Familiar with the principles of pedagogy and curricular framework for optimal growth through ECD programmes
4. Possess strategies for effective capacity building, implementation and assessment of early childhood development programmes

Semester III

Paper Number : 1331 DEVELOPMENTAL DISABILITIES

Course outcomes:

1. Understand conceptual approaches to developmental disabilities
2. Acquire knowledge of definitions, etiology, diagnosis, and assessment of childhood disabilities
3. Familiar with the significance of children's social and ecological contexts
4. Demonstrate understanding of the approaches and practices for inclusion and empowerment of children and families

CHILDHOOD AND ADOLESCENCE ACROSS ECOLOGICAL SETTINGS

Course outcomes:

1. Understand the specific features of childhood and adolescence as distinct stages of development
2. Develop skills to create an awareness about social processes during childhood and adolescence
3. Familiar with the experiences of childhood and adolescence in different parts of the world

Paper No.: 1333(a) **WOMEN AND SOCIETY**

Course outcomes:

1. Understand cultural assumptions about womanhood
2. Familiar with an overview of contemporary feminist theories
3. Possess knowledge of representation and status of women in diverse selection of texts – theoretical, literary and visual
4. Comprehend collective consciousness about processes related to being a woman in India and discuss social strategies for empowerment

Paper No.: 1333(b) **CHILDREN, FAMILY AND SOCIETY**

Course outcomes:

1. Understand the family as a group with emphasis on socio-psychological dynamics understand multicultural families with diverse forms of child rearing and parent-child relationships
2. Acquire the ability to conceptualize contemporary changing family settings, social structures and processes

Paper No. – 1333(c) SOCIAL PSYCHOLOGY FOR HUMAN DEVELOPMENT

Course outcomes:

1. possess knowledge of principles and process in social psychology
2. gain an understanding about the origins of social behaviour and interactional processes
3. acquire knowledge about social processes

Paper No.: 1333(d) LITERATURE, MEDIA AND CHILDREN

Course outcomes:

1. Familiar with notions of childhood through literary texts (across region and period)
2. Understand the changing representations of childhood in literature and media

3. Understand the impact of social change on depiction of children in aesthetic traditions
4. Comprehend research trends in children's evolving relationship with media

Paper Number: 1334 DEVELOPMENTAL DISABILITIES

Course outcomes:

1. Develop the skills of assessing children and adolescents for and with disability
2. Gain an understanding of methods of working with children and adolescents with disability
3. learn the skills of providing guidance and counselling to children and their families

Paper No. : 1335 (a) INTERNSHIP

Course outcome:

- Gain hands-on experience of working in various settings linked with issues in children and adults' development.
- Work with NGOs, Govt. agencies, International agencies as well as self-help groups.

DISSERTATION

Course outcomes:

- Undertake an independent piece of research work on an issue of contemporary concern that contributes to the advancement of knowledge in the field of Human development and childhood studies.
- Present the proposal of the planned research work.

SEMESTER IV

Paper No.: 1431 EDUCATION FOR HUMAN DEVELOPMENT

Course outcomes:

- Develop a holistic understanding of the educational ecosystem.
- Understand the educational components, processes and practices with reference to human development.
- Become aware of the critical issues that need to be addressed for quality education for all.
- Understand the implementation strategies in the context of ground realities.

Paper No.: 1432 LAW, POLICY AND PROGRAMMES FOR CHILDREN AND WOMEN

Course outcomes:

- Develop an understanding of constitutional provisions and legislations with reference to children and women in India
- Acquire knowledge of prevalent social policies as they relate to lives of children and women

- Engage with the linkages between social policy, legislations and implementation of schemes and programmes

Paper Number : 1433(a) CHILD AND ADOLESCENT WELL-BEING

Course outcomes:

- Acquaint with the various approaches for understanding the construct of ‘well-being’
- Acquire knowledge of developmental psychopathology in childhood and adolescence
- Gain an understanding of the preventive, promotive and therapeutic approaches to well-being in childhood and adolescence

Paper No.: 1434 ORGANIZATION AND MANAGEMENT OF PROGRAMMES FOR CHILDREN AND FAMILIES

Course outcomes:

- Learn skills and methods for evaluating persons and contexts for program development
- Develop an understanding of components of quality programmes for persons in difficult circumstances
- Enhance skills of working with individuals or communities in disadvantaged settings
- Undertake appropriate intervention strategies in select domains of work with children and families

DEPARTMENT OF RESOURCE MANAGEMENT & DESIGN APPLICATION

M.SC. RESOURCE MANAGEMENT & DESIGN APPLICATION

Program Specific Outcomes

1. Professional and career readiness through participation in real life projects and develop the right skill set needed in a competitive market scenario.
2. Enhanced entrepreneurial spirit through sounder management of facilities, marketing, finance and industrial programming.
3. Proficiency in various computer aided soft wares alongwith design simulation thus giving a professional edge.
4. Expertise in designing space and products using ergonomic, sustainable, economically and socio-culturally viable solutions with focus on life-cycle assessment approach.
5. Proficiency in techniques and technologies for sustainable use of resources integrated with various dimensions and frameworks of environment management.

SEMESTER 1

1. Paper No. 1101 Statistics and Computer Applications

- Comprehend the basic statistical procedures for research in resource management.
- Analyze and interpret statistical procedures in research.
- Apply specific software programs for quantitative and quantitative analysis in research.

2. Paper No. 1122 Management Trends & Application

- Comprehend the significance of management in the micro and macro level organizations.
- Develop an understanding of the conceptual, human and scientific aspect of managerial functions and processes.
- Know the various management concepts and tools for efficient utilization of organizational resources.

3. Paper No. 1123 Sustainable Habitat and Socio-Cultural Environment

- Comprehend the concept of sustainable built environment in terms of safety, security, energy efficiency, resource conservation and factors that improve livability of cities.

- Develop a holistic understanding of human settlements, neighborhood planning, zoning and land use.
 - Develop appreciation towards smart city planning for sustainable national development.
- 4. Paper No. 1124 Consumer Behaviour & Marketing Management**
- Describe importance, scope and competitive strategies of marketing.
 - Understand changing micro and macro environment of organizations and importance of market research and forecasting.
 - Comprehend the importance of creating customer value.
 - Apprehend the roles of marketing communication and measuring its effectiveness.

SEMESTER 2

1. Paper No. 1221 Research Methods & Seminar

- Apprehend the significance of management in the micro and macro level organizations.
- Understand the conceptual, human and scientific aspect of managerial functions and processes.
- Comprehend the various management concepts and tools for efficient utilization of organizational resources

2. Paper No. 1222 Facilities Management

- Comprehend the various aspects of facilities maintenance and services, materials and accessories in indoor and outdoor environment.
- Understanding the systems-operations management, quality control and project review techniques.

3. Paper No. 1223 Financial Management and Accountancy

- Comprehend the principles and techniques of accounting information for decision-making and control were imparted.
- Proficiency in the use of tools, techniques and processes of financial management in the realm of financial decision-making were acquired.

4. Paper No. 1224 Project Management

- Identify various types of projects, their procedures as well as roles and responsibilities of a project manager.
- Understand the relevance of work breakdown system in projects with the conventional and modern techniques of time scheduling for construction projects.
- Proficient in the use of computer aided software for project management.

SEMESTER 3

1. Paper No. 1321 Enterprise Design and Management

- Comprehend the aspects of entrepreneurship management with focus on process design of various enterprises.
- Knowledge orientation towards identifying enterprise opportunities.
- Understand the dynamics of enterprise management.

Specialization-A Space and Product Design

2. Paper No. 1323 (A) Product Design and Development

- Identify design problems and offer new and sustainable ideas for product development.
- Proficient in creating schematic drawings, constructional details and product prototypes with focus is on up-cycling, refurbishment and re-cycling.

3. Paper No. 1322 (A) Applied Ergonomics

- Address the ergonomic concerns and approaches in design.
- Understand occupational health and safety through assessment of human interaction in work environment system.

Specialization-B Environment Management & Sustainable Development

2. Paper No. 1322 (B) Health and Safety in Built Environment

- Carry out risks assessment and vulnerability analysis.
- Sharpen the existing skills for meeting emergency situations of learners.
- Understand the various aspects of disaster preparedness, mitigation and rehabilitation.
- Generate community awareness, strengthen institutional mechanism for community mobilization and participate in safe environment management.

3. Paper No. 1323 (B) Technologies for Sustainable Development

- Apprehend the significance of sustainable development and the need for conservation of resources.
- Know the various techniques and technologies for sustainable development.
- Understand and critically analyze the measures adopted at policy as well as implementation level for sustainable development.

SEMESTER 4

1. Paper No. 1421 Industry Programming and Project

- Professional competence to find a niche in the global market as successful practitioners.
- Link the academic programme with industry as a strategic tool for staying ahead in competitive market scenario.
- Able to explore relevant industries with focus on their policies and programmes.

Specialization-A Space and Product Design

2. Paper No. 1423 (A) Design Clinic & Audit

- Critically analyze and evaluate designs for safety, ergonomic, functional and sustainable audit of products.
- Identify design problems and find appropriate solutions using life-cycle assessment approach.

3. Paper No. 1422 (A) Advanced Space Design & Ecology

- Equipped with skills in visualizing and drawing various theme based interior and exterior design projects.
- Able to create working and presentation drawings for community and commercial projects manually as well as on computer aided software.
- Develop professional skills in planning and executing space design projects.

Specialization-B Environment Management & Sustainable Development

2. Paper No. 1422 (B) Climate Change, Ecosystem and Society

- Apprehend causes of climate changes, natural as well as anthropogenic.
- Grasp the impact of climate change on different system of the universe.
- Understand the policies and programs concerning climate change.

3. Paper No. 1423 (B) Environment Management Dimensions and Approaches

- Apprehend the concepts of integrated environment management.
- Understand the various dimensions and frameworks for environment management.
- Comprehend the participatory approaches and models towards environment management.

DEPARTMENT OF FABRIC AND APPAREL SCIENCE

M.SC. FABRIC AND APPAREL SCIENCE

PROGRAM SPECIFIC OUTCOMES

Students will be able to:

- ❖ Understand the current processes and trends, new developments and technological changes in the field of textiles and apparel.
- ❖ Identify and appreciate the historic textiles and costumes of the world and draw inspiration for the present
- ❖ Apply creative, managerial and technical skills for careers and entrepreneurship in the field of apparel and textiles.
- ❖ Understand and apply tools and methods of research and statistics for conducting research in the subject area.
- ❖ Apply their knowledge and skills and reach out to the community for their capacity building.

SEMESTER 1

1101 STATISTICS AND COMPUTER APPLICATIONS (THEORY) 4

1. Learn basic statistical procedures for research
2. Understand applications of statistical techniques for analysis and interpretation
3. Use selective software for qualitative and quantitative data analysis

1142 ADVANCED FABRIC SCIENCE (THEORY) 4

1. Understand the morphology of textile fibers and their relationship to physical properties
2. Describe the types of yarns, their properties and usage
3. Understand various types of fabrics and their applications
4. Enhance awareness of innovations in fabrics for specific end uses

1143 APPAREL PRODUCTION 4

1. Understand the functioning of the garment industry.
2. Understand various processes and technical parameters of garment production.
3. Enhance awareness of sewn product, machinery and equipment.

1144 HISTORIC TEXTILES AND COSTUMES (THEORY) 4

1. Study the textiles and costumes in the ancient world
2. Trace the development of western costume through the ages
3. Explain the styles and special features in costume from ancient world till 19th century

1145 PATTERN MAKING AND CONSTRUCTION-I (PRACTICAL) 4

1. Develop skills in different techniques of pattern development and construction for upper garments
2. Understand the principles of grading standardized bodice and sleeve slopers to various sizes

SEMESTER 2

1241 RESEARCH METHODS AND SEMINAR (THEORY) 4

1. Orient, equip and impart knowledge on the significance of research methodology in Home Science education, with specific reference to Fabric and Apparel Science
2. Understand the types, tools and methods of research
3. Enhance the ability and to acquire skills to construct data gathering instruments appropriate to the research design
4. Develop competency in the preparation and conduct of participatory and innovative research strategies, programmes and reports for dissemination of the vital information in the subject area
5. Gain experience in conducting literature search from various sources independently and to make an academic presentation using current technology.

1242 TEXTILE FINISHING AND EVALUATION (THEORY) 4

1. Understand the inter-relation of fiber structure and its properties
2. Study the application and mechanism of textile finishes

3. Enhance awareness in future trends in textile finishing

1243 WORLD TEXTILES: TECHNIQUES AND MASTERPIECES (THEORY) 4

1. Study the textile traditions of the world
2. Study the important textile arts in their historical perspective
3. Appraise the role of Indian textiles vis-à-vis developments in the world textiles
4. Create awareness and foster appreciation of textile masterpieces of the world

1244 PATTERN MAKING AND CONSTRUCTION- II (PRACTICAL) 4

1. Develop skills in different techniques of pattern development and construction for lower garments
2. Understand the principles of grading standardized skirt blocks to various sizes

1245 TEXTILE FINISHING AND EVALUATION (PRACTICAL) 4

1. Apply and evaluate various textile finishes
2. Assess the effect of different finishes on fabric properties

SEMESTER 3

1341 DYEING, PRINTING AND COLOUR MEASUREMENT (THEORY)

4

1. Understand the concept of color and its measurement.
2. Study the theories, mechanism and use of various dyes and auxiliaries.
3. Understand the concept of dyeing and printing of various substrates with different classes of dyes.

1342 FASHION WORLD (THEORY) 4

1. Understand the dynamics of fashion in relation to its retail.
2. Analyze the process of origin and merchandising of fashion in the fashion industry.
3. Study the functions of different components of fashion.
4. Review various forms of fashion promotion for fashion labels and brands.

5. Comprehend the cost and price mechanisms as exists in the fashion industry.

1343 DYEING, PRINTING AND COLOUR MEASUREMENT (PRACTICAL) 4

1. Measure and interpret color values of dyed and printed goods
2. Study the effect of various dyes and auxiliaries on color yield and dyeing quality
3. Dye and print natural and manmade fibers with different classes of dyes.

1344 FASHION ILLUSTRATION (PRACTICAL) 4

1. Explore a range of materials and processes used in illustrating techniques.
2. Develop creative skills in illustrating styles and formats.
3. Produce a portfolio of design techniques and their ideas.

1345a INTERNSHIP 2

Gain hands-on experience of working in the areas related to Fabric and Apparel Sciences like textile testing, apparel manufacturing and marketing, textile processing, textile conservation, etc.

1345b DISSERTATION 2

Undertake an independent piece of research in the area of Fabric and Apparel science related to the historical or contemporary issues that contribute to the advancement of knowledge.

SEMSTER 4

**1441 QUALITY ASSURANCE IN TEXTILES AND APPAREL (THEORY)
4**

1. Understand the need and scope of quality assurance.
2. Explain and understand the standards existing all over the world and certifying bodies.

**1442a. TEXTILE CONSERVATION AND DOCUMENTATION (THEORY)
4**

1. Understand textile documentation methods and their collection.
2. Appraise the role of museum in conservation and exhibition,
3. Develop technical and analytical skills for textile conservation.

1442b. EXTENSION PROGRAMME DESIGNS (THEORY) 4

1. Extend outreach activities among identified target groups.
2. Inculcate a sound understanding of the applicability and relevance of various teaching aids for usage in the above mentioned extension areas.
3. Enhance their effectiveness in the usage of teaching aids for identified socio-economic target groups.

1442c. TEXTILES FOR HOME AND HOSPITALITY (THEORY) 4

1. Acquire knowledge of history and contemporary concepts of textiles in home and hospitality sector.
2. Understand the nature and potential of these Indian textiles in the global scenario
3. Study the fabrics, finishes, detailed design and selection criteria for textiles used in home and hospitality.
4. Gain knowledge regarding the use, care and maintenance of various classes of textiles used in home and hospitality.

1442d. FASHION MERCHANDISE RETAIL (THEORY) 4

1. Understand the concepts of merchandising and retailing.
2. Study the principles of merchandise management and financial planning.
3. Study in detail various components of a retail store

1443 TEXTILE DESIGN DEVELOPMENT AND COMPUTER APPLICATION (PRACTICAL) 4

1. Conceptualize design and its implementation.
2. Develop creative and technical skills in designing.
3. Design and develop structural and applied design for product development
4. Apply various tools and techniques of Corel Draw and Adobe Photoshop

DEPARTMENT OF EDUCATION

PROGRAM OUTCOMES

The Department of Education at lady Irwin College was established in 1932. The Department of Education is a diverse, scholarly community dedicated to serving education through teaching, scholarship, and outreach. The mission of our department is to prepare outstanding professionals who are committed to serving children through learning, producing research that improves the practice of education, and providing excellent professional support to all the stakeholders. We facilitate access to classroom teaching opportunities in diverse types of schools in different parts of Delhi. We maintain strong professional connections through faculty who collaborate with different organisations and institutions in the field of education.

The Department of Education strives to prepare students who would be leaders in their classrooms, effective practitioners in their particular field, and lifelong learners. The Students of Department of Education:

- are able to understand the individual differences among learners in different educational settings.
- become sensitive towards children with special needs and differential intervention for inclusive education.
- gain knowledge of research for development, implementation and evaluation of appropriate instructional designs.
- become effective practitioners and leaders in school and educational institutions of different types.
- engage in research on the issues related to education.
- employ innovative education technologies and the latest classroom facilities.
- develop socially and culturally responsive pedagogy.
- use content and pedagogical knowledge to develop their practices.
- modify curriculum and instruction based on the individual needs of their students (address diversity in teaching/learning).
- use assessment of their students' learning and their own teaching to inform future planning and learning.
- work with dignity and collaboratively with colleagues and community to ensure effective outreach.

B.Ed. Two Year Programme

Course Outcomes

F-1: Education in Contemporary India

CO1. engage students to appraise and discuss various policy discourses on contemporary Indian society and education.

CO2. enumerate the salient features of our constitution and constitutional measures highlighting education as mean of social justice.

CO3. sensitize about the issues and challenges faced due to Socio-economic and Cultural diversities of India.

CO4. acquaint with various national initiatives and schemes like mid day meal etc. to support economically socially and educationally backward community.

CO5. understand various school system and its structures.

F2: Human Development, Diversity & Learning

CO1. facilitate a comprehensive understanding of the development, learning and uniqueness of the growing child in diverse socio-cultural contexts.

CO2. critically examine key universal constructs in developmental psychology and educational psychology and their applications from the lens of cross-cultural frames.

CO3. develop the potential for perspective building located in the Indian socio-cultural context through practicum, academic readings and classroom teaching/discussion.

F3: Conceptual Foundations of Education

CO1. promote reflective thinking among students :

CO2. develop their perception of the concepts involved in educational practice

CO3. enhance their capacity to formulate responses to the reality of education.

F4: Gender, School & Society

CO1. Develop basic understanding of key concepts- gender, gender bias, gender stereotype, empowerment, gender parity, equity and equality, patriarchy and feminism and transgender.

CO2. discuss various policies, plan and schemes of the government for addressing gender inequalities existing in the society.

CO3. familiarize gender issues in school, curriculum, textual materials across disciplines and its intersection with class, caste, religion and region

F5: Knowledge, Disciplines & School Subjects

CO1. enable students to analyze the structure of knowledge as reflected in disciplinary streams and subjects;

CO2. enable students to notice the links between disciplines and school subjects

CO3. examine the structure of the school curriculum from the primary to the secondary stages in terms of the underlying structure of knowledge;

CO4. encourage students to reflect on their own education and notice how their interests and capacities have been shaped by the structure of curriculum and other external factors.

P1.2: Science

CO1. understand Science as a discipline through its philosophical and epistemological perspectives.

CO2. give into insights into the nature of science and how children construct knowledge of science by developing a critical understanding about curriculum in science at various school levels.

CO3. develop holistic understanding about science curriculum with respect to learner context and social realities.

CO4. critically analyse science syllabi, textbooks and various science curriculum at national level.

P2.19: Home Science

CO1. Enumerate on the meaning, nature, scope and objectives of teaching Home Science at Secondary and Senior Secondary level.

CO2. State the importance of teaching Home Science in Schools.

CO3. Apply various techniques and approaches of Teaching Home Science at secondary and senior secondary level.

CO4. Plan instructions effectively for teaching learning process of Home Science at school level.

CO5. Plan and modify the setup of Home Science laboratory to conduct practical's according to the changing needs of the curriculum.

CO6. Evaluate student performance with a holistic perspective.

EPC 1(Enhancement of Professional Capacity) Critical Understanding of ICTs in Education.

CO 1: Appreciate the role of ICT in Education in relation to various policies and curriculum frameworks on ICT and in diverse socioeconomic contexts.

CO 2: Explore various ICT tools in diverse classroom contexts.

CO 3: Access and modify open educational resources.

CO 4: Assess the quality and efficacy of resources and tools available to develop their own pedagogic materials.

CO 5: Develop the reflective thinking on critical issues related to ICTs through workshops and seminars.

EPC 2 –Art, Craft and Aesthetics (Drawing and Painting/ Drama in Education)

CO 1: Develop understanding of art, its relation with life and its experiences.

CO 2: Appreciate artistic heritage and folk arts of India

CO 3: Develop understanding, sensitivity and sensibility to self and others from diverse background through drama in education.

CO 4: Develop, extend and hone in their creative capacities and skills and apply in classroom.

CO 5: Inculcate an understanding of specific forms like folk and street theatre that have educational value.

CO 6: Develop independent decision making, attitude to explore and experiment and develop different strategies of classroom transaction.

School Experience Programme- Field Observation (First Year)

CO1. Develop the awareness in the specific roles and responsibilities of a teachers in their subject specialization

CO2. Develop an ability to observe the implementation and evaluation of effective teaching learning strategies well grounded in Education

CO3. Understand through an intensive experience the nature of schools vas workplace and their associated values, routines and cultures

CO4. Develop the professional capacity for classroom teaching in their subject including student management and relationship with wider community

CO5. Demonstrate an understanding of professional and ethical practices

CO6. Student teacher will equipped to cater the diverse needs of learners in schools

CO7. Develop the capacity to consolidate and reflect on their teaching learning experience duri8ng school observation and expanded their knowledge through discussions.

F-6: INCLUSIVE SCHOOL

- CO 1. Demonstrate knowledge of different perspectives in the area of education of children with disabilities
- CO 2. Develop sensitivity and positive attitudes towards children with special needs identify the needs of children with diversities
- CO 3. Appreciate the significance of special schools and regular schools in the education of children with disabilities
- CO 4. Plan need-based programmes for all children with varied abilities in the classroom
- CO 5. Use human and material resources in the classroom
- CO 6. Use specific strategies involving skills in teaching special needs children in inclusive classrooms
- CO 7. Modify appropriate learner-friendly evaluation procedures
- CO 8. Incorporate innovative practices to respond to education of children with special needs
- CO 9. Critique policies and contribute to the formulation of policy
- CO 10. Critique implementation of policies and contribute to implementation of laws pertaining to education of children with special needs.

F-7: Assessment for Learning

- CO 1. Demonstrate an authentic understanding of assessment, evaluation, and measurement differentiate between formative and summative assessment
- CO 2. Discuss the relevance of Continuous and Comprehensive Evaluation which is a mandate under RTE 2009
- CO 3. Critically analyse and critique the current evaluation practices and assumptions on overall development
- CO 4. Discuss the impact of prevailing assessment practices on student learning
- CO 5. Formulate indicators for assessment in their own subject areas
- CO 6. Develop and design different assessment instruments (a test, reflective essay, project, etc) and a scoring rubric in their own subject areas
- CO 7. Construct feedback protocol for students, teachers, parents, peers, etc.

ELECTIVE COURSES

E-4: EDUCATION AND TECHNOLOGY

- CO 1. Demonstrate an understanding of the concept, nature, scope and importance of Educational Technology.
- CO 2. Design sound instructional system using various technologies
- CO 3. Describe the various models of teaching and apply them in developing teaching aids
- CO 4. Implement various techniques in educational practice.
- CO 5. Integrate lessons with emerging trends in Educational Technology.
- CO 6. Develop Programmed Instruction, Multimedia Presentations and Communication Plans for learners at different levels of school education

CO 7. Critically analyze the application of educational technology, as a whole, in the field of education.

E-5: ENVIRONMENT EDUCATION

CO 1. Relate the concept of environment with development.

CO 2. Critically analyze the conflicts and inequalities that result from the complex interaction of social and environmental factors.

CO 3. Develop an ability to inquire into the role that teachers can play in dealing with curricular areas that focus on environment

CO 4. Design teaching learning programmes, lesson plans and text by integrating the environmental perspective.

CO 5. Critique the case studies from different contexts and settings symbolizing traditions and attitudes to environment

CO 6. Get themselves appraised by the environmental concerns given in various documents, reports and Government policies.

CO 7. Critically analyze the school textbooks from an environmental perspective.

E-8: Adolescence Education

CO 1. Demonstrate sensitivity, understanding and knowledge about Adolescence issues

CO 2. Delineate the importance of Adolescence Education Programmes at the school level.

CO 3. Showcase knowledge and sensitivity on issues related to reproductive health, sex and sexuality and communicate effectively on the same.

CO 4. Gauge the role of physical, physiological, psychological, socio-cultural and interpersonal issues related to the processes of growing up.

CO 5. Exhibit a healthy attitude towards sex and sexuality, respect for the opposite gender and an understanding of responsible sexual behavior.

CO 6. Integrate the desired life skills into their day-to-day living.

CO 7. Interpret the socio-legal and cultural issues related to sex and sexuality.

CO 8. Acquire skills to use certain techniques such as question box, role play, value clarification and case studies, for enacting Adolescence Education Programmes

CO 9. Take up detailed case studies on any of the issues related to adolescence and adolescent health.

EPC 3 Understanding Communication

CO1. Teacher becomes an effective communicator to fully realize the educational potential of classroom interaction.

CO2. They develop communication skills viz a viz diverse audience using variety of tools and styles.

CO3. They develop command over different language skills i.e reading, writing, speaking and listening.

CO4. They become reflective practitioners.

CO5.They develop skills of academic reading and writing.
CO6.They are oriented towards the ethical use of language.

EPC 4 Yoga

CO1.Students have entered in the state of highest consciousness that manifest in life through righteous actions or conduct.

CO2.They are awakened towards real self.

CO3.They appreciate importance of yoga education in their lives.

CO4.They have identified misconceptions about yoga.

CO5.They have trace the development of yoga through the ages.

CO6.They apply yoga practices in their day to day life.

School Experience Programme- Internship(2nd year)

CO1. They are acquainted with different genres of schooling in the country.

CO2.They develop awareness, understanding and capacity in the specific roles and responsibilities for teachers.

CO3.They understand through an intensive experience the nature of school as workplace and their associated values, routines and culture.

CO4.They develop and refine their skill and professional capacities for classroom teaching in their subject specialization.

CO5.They demonstrate the ability to plan, implement and evaluate effective teaching learning strategies. They develop an awareness of other people in the school and the community, whose work supports the classroom teachers and their roles and responsibilities.

B.Ed. Special Education (MR/ID)

The B.Ed.Spl.Ed. (MR/ID) programme aims to develop Special Education Teachers/Educators for children with special needs for various settings (including Inclusive, Special, Open School and Home Based Education). The B.Ed. Special Education (MR/ID)programme prepares learners to enable them to acquire knowledge and develop competencies and skills for education of children with disability as well as all other children. After completing the B.Ed. (Special Education) programme the student-teachers will be enabled to:

- Comprehend the complexity of human development, contemporary Indian education, pedagogy of various school subjects and assessment for learning.
- Develop expertise to understand the nature and education of children with special needs.
- Gain a conceptual understanding of educational provisions and capabilities for working with children with various disabilities in special and inclusive settings.

- Develop knowledge and skills for professional development in education of children with Intellectual impairment and inclusive education.

A1: Human Growth and development

Outcome

- develop understanding about human growth and development in student- teachers
- understand the theories of development with reference to children with special needs.
- Stimulate the developmental delay of children with special needs with the help of developmental theories.
- Use growth, development and maturity concepts for all domains development of children at grass root level.

A2: Contemporary India and Education

- Understand the basic concepts & issues of theories and educational system in its historical & contemporary contexts.
- Understand the concept of diversity, their needs and different national and international agencies which are contributing in their academic and professional growth.

A3: Learning, Teaching and Assessment

- understand the different learning theories, learning styles and other aspects of learning to facilitate different learners in the classroom
- understand the different teaching methods, principles and other teaching strategies to teach effectively
- understand different assessment processes in different context of teaching learning phases and aspects

A4: Stream Based Pedagogy (any one from Part –I to Part- IV)

A 5: Pedagogy of School Subjects any one from Part-I to Part V

- understand the nature and philosophy of various pedagogies i.e. Social-Science, Languages, Mathematics, and Science
- acquire the skills to transact the content in the class rooms and create the teaching learning resources along with the methodologies of these

B 6: Inclusive Education

- Explain the construct of inclusive education & the progression from segregation towards valuing & appreciating diversity in inclusive education.
- Explicate the national & key international policies & frameworks facilitating inclusive education.
- Enumerate the skills in adapting instructional strategies for teaching in mainstream classrooms.
- Describe the inclusive pedagogical practices & its relation to good teaching.
- Expound strategies for collaborative working and stakeholders support in implementing inclusive education.

B 7: Introduction to Sensory Disabilities (VI, HI, Deaf-blind)

- Name the different types of sensory impairments and its prevalence and describe the process of hearing & implications of various types of hearing loss.
- Explain the issues & ways to address challenges in educating students with hearing loss.
- Describe nature, characteristics & assessment of students with low vision & visual impairment.
- Suggest educational placement and curricular strategies for students with low vision & visual impairment.
- Explicate the impact of deaf-blindness & practices for functional development.

B 8: Neuro Developmental Disabilities (LD,MR/ID, ASD)

- Discuss the characteristics and types of learning disability.
- Describe the tools, areas of assessment and apply intervention strategies to enhance learning.
- Explain the characteristics and types of Intellectual disability.
- Describe the tools, areas of assessment and prepare and apply intervention strategies for independent living.
- Explain the characteristics and types of Autism Spectrum Disorder.
- Describe the tools, areas of assessment and apply intervention strategies.

B 9: Introduction to Locomotor & Multiple Disabilities (CP, MD)

- Identify the persons with Locomotor disabilities such as Cerebral Palsy, Amputees, Polio,

Leprosy cured, Muscular dystrophies, Neural and spinal defects and Multiple disabilities.

- Plan an effective programme for creating awareness about the persons with Locomotor disabilities and Multiple disabilities.
- Plan an effective therapeutic and programme for the persons with Locomotor disabilities and Multiple disabilities and to refer for medical intervention if necessary.
- Plan an effective educational programme and functional activities for the persons with Locomotor disabilities and Multiple disabilities.

B 10 (a) : Skill Based Optional Course (Cross disability and Inclusion) (Applied Behavior Analysis)

- Apply the skills of guidance and counselling in classroom situations.
- Describe the process of development of self-image and self-esteem.
- Appreciate the types and issues of counselling and guidance in inclusive settings.

B 10 (b)

- Explain the biological & sociological foundations of early childhood education.
- Describe the developmental systems approach and role responsibilities of interdisciplinary teams for early education of children with disabilities.
- Enumerate the inclusive early education pedagogical practices.

B 10 (c)

- Develop an understanding of the underlying principles and assumptions of Applied Behavioural Analysis (ABA).
- Use various measures of behavioural assessment.
- Apply methods of ABA in teaching and learning environments.
- Integrate techniques of ABA in teaching programs.
- Select suitable strategies for managing challenging behaviours.

B 11 (e): Skill Based Optional Course (Disability specialization) any one

- Management of Learning Disability
- Explain the concept, causes and characteristics of learning disabilities.
- Discuss different types of learning disabilities and its associated conditions.
- Develop teacher made assessment test in curricular areas.
- Plan appropriate teaching strategies as per the specific needs of children with learning disability.

C12: Assessment and Identification of Need

- understand the concept, nature and historical prospective of mental retardation/intellectual disability
- understand the different needs, assessment tools and diagnostic procedures of children with intellectual disability.

C13: Curriculum Designing, Adaptation and Evaluation

- understand the nature, concept and different aspects of curriculum for children with intellectual disabilities.
- acquire the skills to develop the curriculum for children with intellectual disabilities at different level.

C 14: Intervention and Teaching Strategies

- Understand basic of learning and teaching and acquire competency to select and demonstrate appropriate teaching strategies for teaching in different curriculum areas.
- Understand nature and identification maladaptive behaviour and develop insight into various modes of its management.
- Develop understanding of various therapeutic interventions, their objectives, scope, modalities, and require intervention.

C15: Technology and Disability

- Comprehend the role of technology in educating children with ID and acquire knowledge about its various approaches and modes.
- Understand nature of ICT, its basis, development and use.
- Use computer programme and software for the benefit of children with ID.
- Develop skills and competencies in use of Punarjani and C-DAC and integrate technology for instructions and inclusion.
- Apply technology for developing lesson plan and adapted assistive devices.

C16 : Psycho- Social and Family Issues

- Realise importance and role of family in rehabilitation of children with ID.
- Develop insight into various Psycho-social issues and their impact on rehabilitation

- on PwID, misconception and social practices and develop based approach.
- realize importance of family involvement in rehabilitation process by forming parents self help group and parent association.
- Understand various Adolescent related issues and challenges their implication for rehabilitation of PwIDs and to explore probable employment opportunities for them.
- Comprehend role of community and community participation and models, advantages / disadvantages of CBR programme for PwIDs.

D-17 Reading and Reflecting on Texts

Outcomes of the course:

- Reflect upon current level of literacy skills among students.
- Show interest and begin working upon basic skills required to be active readers.
- Skills required to be independent writers and understanding adequate intent, audience and organization of the content.
- Prepare them to facilitate good reading and writing across the ages.
- Find reading and writing as learning and recreational tools rather than a course task.
- Develop understanding of communication skills among students with special needs.

D-18 Drama and Art in Education

Outcomes of the course:

- Exhibit basic understanding in art appreciation, art expression and art education.
- Plan and implement facilitating strategies for students with and without special needs.
- Adaptive strategies of artistic expression among students.
- Art education can enhance learning among students with special needs

D-19 Basic Research and Statistics

Outcomes of the course:

- Concept and relevance of research in education and special education.
- Develop an understanding of the research process and acquire competencies for conducting research for students with and without special needs.
- Apply suitable measures for data organization and analysis.

SEP

1. Develop awareness in the roles and responsibilities of a teacher in respective subjects.
2. Develop and enhance professional capacity for class room teaching including organizing and management.
3. Develop meaningful and holistic engagement with learners and the school climate.
4. Prepare one to facilitate good interaction.
5. Expose to real life situation of the professional
6. Manage anticipation, anxiety excitement and apprehensions

7. Explore diverse teaching methods and techniques.
8. Develop the ability to observe the implementation and evaluation of effective teaching learning techniques / strategies
9. Generate awareness of resources / parameters (Human and material) in the school and the community that affects the transaction in the classroom.

Internship

1. Identify and assess persons requiring rehabilitation services.
2. Sensitize community based inclusive development.
3. Focus on psychosocial and physical status of persons with disabilities and family.
4. Facilitate rehabilitation.
5. Refer the sufferer to respective centre / place for services.
6. Conducts a follow-up of referred services.
7. Coordinate with social justice and empowerment department and national trust jointly.
8. Promote equity and full participation.