

MASTER OF SCIENCE

HOME SCIENCE - BRANCH XD

FAMILY AND COMMUNITY SCIENCE

Introduction

The Masters Programme in Family and Community Science is built upon both the discipline of science and humanities for the purpose of achieving the welfare and wellbeing of the family in an ever changing society. The focus of the postgraduate programme is to develop professional and entrepreneurial skills in all domains of Home Science such as Advanced Housing and Interior Space Designing, Approaches to Resource Management, Hospitality Management, Clinical Nutrition and Dietetics, Public Health Nutrition, Food Service Management, Early Childhood Care and Education, Early Intervention for Infants and Exceptional Children, Developmental Psychology and Counseling Skills, Garment Production Technology and Fashion, Textile Testing and Eco-friendly Textiles, Entrepreneurship development.

The curriculum of this programme aims at nurturing a firm theoretical background with practical skills and development of research related abilities, so that the graduates are capable of critical and analytical thinking, sensitive to societal issues and concerns, and able to communicate skillfully.

The programme would enable graduates to work as: teachers at university level and school level, researchers, food quality controllers, co-coordinators / Project Officers, Assistants of health & Nutritional Programmes, Welfare Programmes of government / NGOs, Agencies of National & International repute- ICMR, ICAR, NIPCCD, CFTRI, UNICEF, WHO. Managers/Supervisors in garment/ programme planners/ Food Industries, Production units of hotels, Administrators, Special Educators, Remedial Teachers in Rehabilitation Centres, Teacher Trainers, Extension Officers. Fashion Designers, Interior Designers, Textile Designers, Apparel Merchandisers, Counselors in Schools/ Colleges and Child Guidance Clinics, De-addiction and Child Care Centers, Family Courts, Dieticians in Hospitals, Diet Consultants in Hotels, Industrial Canteens, Fitness Centres and geriatric Clinics, Health Resorts, Housekeeping and Front Office Personnel, Front Office Managers, Garment Manufacturing, Early Childhood Care and Consultancy Services. The students having adequate

background in planning, evaluating, monitoring and organizing skills would be able to work as entrepreneurs and also play advocacy related roles.

Career Prospects

The Post-Graduate programme in Family and Community Science enable the graduates to improve their personal qualities and professional life and contribute towards the betterment of the family and community. This enables them to develop knowledge and competence for:

- (i) Teaching and research in academic and other institutions.
- (ii) Planning and conducting intervention, guidance and advocacy for empowerment of families and communities.
- (iii) Supervisory, training and consultancy roles and responsibilities in Government and non-government agencies/institutions.
- (iv) Entrepreneurship in specific areas of interior space designing, food Technology, food industries/hotels/restaurants/apparel industries, fashion technology, human development and family studies.
- (v) Planning, monitoring and evaluation of various programmes for children, women and families in general.
- (vi) Advocacy and policy related roles.

Eligibility

For admission to the post graduate programme in Family and Community Science (Branch X D) the applicant must have passed graduation in Family and Community Science/ Home Science/ Food Service Management and Dietetics/ Clinical Nutrition and Dietetics/ Food Science and Quality Control with not less than CGPA of 2.00 out of 4 in Core Group (Core+Complementary+Open Courses) or with not less than CCPA of 5.00 out of 10.00 in Core Group (Core+Complementary+Open Courses) or with not less than 50% marks in Part III (Main/Core+Subsidiaries/Complementaries).

In addition to the existing criteria any graduates who have done a minimum of three papers from the following list are also eligible. Clinical Nutrition/ Dietetics/ Nutrition/ Catering/ Dairy Science/ Environmental Biology/ Physiology/ Organic Chemistry/ Environmental Chemistry/ Food Science/ Quality control/ Health Science/ Energy Management/ Psychology/ Horticulture/ Landscaping/ Food Safety/ Hospitality Management/ Quality Cookery/ Food

Safety/ Product Development/ Biostatistics/ Informatics/ Microbiology/ Biotechnology/ Ergonomics/ Marketing/ Advertisement/ Women Studies/ Food Packaging/ Food Processing/ Food Technology/ Hospitality Management/ Business Administration/ Entrepreneurship/ House Keeping/ Food Science Management/ Advertising/ Fashion Designing/ Apparel Manufacturing/ Ecological Conservation/ Public Health Nutrition/ Institutional Food Administration/ Sustainable Development/ Ecology/ Environmental Studies/ Counseling.

Graduates in Psychology, Human Development, Nursing, Zoology, Microbiology, Food Microbiology, Chemistry, Biotechnology with not less than CGPA of 2.00 out of 4 or with not less than CCPA of 5.00 out of 10.00 in the Core group (Core+Complementary+Open Course) with PG Diploma/Open Course in Interior Decoration and Related Arts, Life Skills Strategies and Techniques, Nutrition for Wellness, Self Employment skills.

Graduates in Psychology, Human Development, Nursing, Zoology, Microbiology, Food Microbiology, Chemistry, Biotechnology with not less than 50% in the part III subjects (Main/Core+Subsidiaries/Complementaries) with PG Diploma/Open Course in Interior Decoration and Related Arts, Life Skills Strategies and Techniques, Nutrition for Wellness, Self Employment skills.

In addition to existing criteria, who have done a minimum of three papers from the following list are also eligible.

1. Clinical Nutrition /Nutrition/Dietetics/Biochemistry/Biotechnology 2.Human Physiology
3.Public Health Nutrition/Community Nutrition/Epidemiology 4.Food
Microbiology/Microbiology 5.Food Science and Quality Control/Food Technology/ Food
Service Management/Catering.

Graduates in Psychology, Human Development, Nursing, Zoology, Microbiology, Food Microbiology, Chemistry, Biotechnology with not less than CGPA of 2.00 out of 4 or with not less than CCPA of 5.00 out of 10.00 in the Core group (Core+Complementary+Open Course) with PG Diploma in Nutrition and Dietetics/Open Course in Nutrition for wellness/ Open Course in Nutrition for wellness are also eligible.

Graduates in Psychology, Human Development, Nursing, Zoology, Microbiology, Food Microbiology, Chemistry, Biotechnology with not less than 50% in the part III subjects (Main/Core+Subsidiaries/Complementaries) with PG Diploma in Nutrition and Dietetics/Open Course in Nutrition for wellness/ Open Course in Nutrition for wellness are also eligible.

Duration

The course will comprise of four semesters. Each semester will have 90 working days, inclusive of examination, distributed over a minimum of 18 weeks of 5 working days each.

HOME SCIENCE - BRANCH XD

FAMILY AND COMMUNITY SCIENCE

COURSE OUTLINE

TOTAL CREDITS- 80

SEMESTER	COURSE	NAME OF COURSE	TEACHING HOURS PER WEEK	CREDIT	TOTAL CREDIT
I	HS020101	Environment and Human Resource Management	4	4	19
	HS020102	Clinical Nutrition and Dietetics	4	4	
	HS020103	Pattern Making and Grading	4	4	
	HS020104	Early Childhood Education	3	3	
	HS020105	Kindergarten Training /ECCE/ Special Education – Practical and Internship	10	4	
II	HS020201	Fundamentals of Housing and Interior Space Design	4	4	19
	HS020202	Public Health Nutrition	4	4	
	HS500203	Research Methods and Statistics	4	4	
	HS020204	Early Intervention for Infants and Exceptional Children	3	3	
	HS020205	Fashion Illustration and design - Practical	10	4	

III	HS020301	Housekeeping	4	4	19
	HS020302	Food Service Management	4	4	
	HS020303	Textile testing and eco-friendly Textiles	4	4	
	HS020304	Entrepreneurship Development	3	3	
	HS020305	Diet Therapy and Programme Planning in Public Health Nutrition - Practical and Internship	10	4	
IV	HS800401	Developmental Psychology and Counselling skills	5	4	23
	HS800402	Food microbiology and Food Safety	5	4	
	HS800403	Garment production Technology and Fashion Marketing	5	3	
	HS020401	Residential Interior Designing and Event management – Practical	10	4	
	HS020402	Dissertation		5	
	HS020403	Comprehensive Viva-Voce and paper presentation		3	
	Total				80

ELECTIVES

Group A		Group B		Group C	
Course	Name of course	Course	Name of course	Course	Name of course
HS800401	Developmental Psychology and Counselling skills	HS810401	Advertising and Public Relation	HS820401	Women Studies
HS800402	Food Microbiology and Food Safety	HS810402	Indian Fabric Embellishment Techniques and Quality Control in Garment Industries	HS820402	Gerontology and Care of the Elderly
HS800403	Garment Production Technology and Fashion Marketing	HS810403	Business Organization and Accountancy.	HS820403	Landscaping and Floriculture

FIRST SEMESTER COURSES

COURSE	NAME OF COURSE
HS020101	Environment and Human Resource Management
HS020102	Clinical Nutrition and Dietetics
HS020103	Pattern Making and Grading
HS020104	Early Childhood Education
HS020105	Early Childhood Education – Practical and Internship

SECOND SEMESTER COURSES

COURSE	NAME OF COURSE
HS020201	Fundamentals of Housing and Interior Space Design
HS020202	Public Health Nutrition
HS500203	Research Methods and Statistics
HS020204	Early Intervention for Infants and Exceptional Children
HS020205	Fashion Illustration and Design - Practical

THIRD SEMESTER COURSES

COURSE	NAME OF COURSE
HS020301	Housekeeping
HS020302	Food Service Management
HS020303	Textile Testing and Eco-Friendly Textiles
HS020304	Entrepreneurship Development
HS020305	Diet Therapy and Programme Planning in Public Health Nutrition - Practical and Internship

FOURTH SEMESTER COURSES

COURSE	NAME OF COURSE
HS800401	Developmental Psychology and Counselling skills
HS800402	Food microbiology and Food Safety
HS800403	Garment production Technology and Fashion Marketing
HS800404	Residential Interior Designing and Event Management – Practical

SEMESTER I

ENVIRONMENT AND HUMAN RESOURCE MANAGEMENT

Course Code: HS020101

Total hours: 72 hours

Credit: 4

CORE

Learning outcomes:

- To understand the significance of resource management
- To become aware of management process
- To identify the environmental resources and its utilization
- To realize the need of leadership for betterment of the society.

Course outline

Module 1: Significance and Scope of Resource Management

18 hours

Management process: Planning - Types and Dimensions; Planning in a systems perspective, Factors affecting planning; Implementation-Controlling, Checking and Adjusting; Evaluation. Systems Approach to Management. Henri Fayol's Principles of management; Levels of management. Management by Objectives (MBO): meaning, features, scopes, Total Quality Management (TQM): Objectives, components and significance

Module 2: Managerial Decision Making and Communication

12 hours

Concept, Steps, Stages and Techniques of decision making; Creativity; Rationality and Risk and Certainty. Methods of resolving conflicts: Communication- Meaning, Significance, Recent trends in communication ICT tools-print and electronic media, email, internet, uses of multimedia, mobile phone, video and teleconferencing, web technology, tech talks and information kiosks. Barriers of communication.

Module 3: Leadership & Motivation

12 hours

Leadership-Importance, Characteristics and styles, Trait theory of leadership, Behavioral theory of leadership, quality of a leaders; Motivation - Importance, theories-Maslow's theory, Herzberg's Motivation Hygiene Model, Key elements of motivation.

Module 4: Energy Conservation and Management**12 hours**

Energy resources: types-renewable and non-renewable, need and importance of renewable energy resources; Sources and Devices: Photovoltaic cell, solar water heaters, Solar cooker, dryer; Rainwater harvesting; Wind mill, bio-mass plants — working principles, application, advantages and limitations. Energy conservation techniques.

Module 5: Environmental sustainability**18 hours**

Environmental education and awareness, environment problem-ozone depletion, global warming, climate change, current environmental issues in India. Pollution: types- Land, water and air- causes and effects, control measures- global warming, acid rain and ozone layer depletion, Sound Pollution-Hazards and control measures; Waste management- Definition, classification, segregation, Waste management-6Rs, methods of disposal- dumping, composting, vermi-compost, bio gas plants, incineration; Grey water Treatment; Soak pit- its construction and functioning; e-waste management. Role of organic pesticides and fertilizers in environmental sustainability; Green Protocol; Carbon Foot Print.

Recommended References:

- Paneerselvam and MohanaRamakrishnan (2007), Environmental Science Education.
- Dr. Chhabra T.N, Principles and Practice of Management,Dhanpat Rai & co.(P) Ltd,1710,Nai Sarak, Delhi.
- Abbasi, S.A and Abbasi, N (2001) Renewable Energy Resources and their Environmental Impact, Prentice Hall of India Pvt. Ltd., New Delhi.
- Ahluwalia.V.K. and SunitaMalhotra (2006), Environmental Science. Ane Books Pvt Ltd New Delhi.
- ChauhanD.S&Srivastava S.K (2010) Non-conventional Energy Resources, New Age International (P) Ltd, New Delhi.
- D.K. Asthana&MeeraAsthana (2006) Environment Problems and Solutions, S. Chand & Company Ltd., New Delhi.

- Dr.N.Arumugam 2005.Environment and Pollution. Saras Publication Nagercoil.G.N. Tiwari, (2010) Solar Energy Fundamentals Design, Narosa Publishing House, New Delhi.
- Harold Koontz, Heinz Weihrich (2014) Principles of Management, Mcgraw hill Education Pvt Ltd New Delhi.
- Jefferson W. Tester et. al.(2009) Sustainable Energy, PHI learning Pvt. Ltd., New Delhi.
- N. Manivasakam (2010) Environmental Pollution, National Book Trust India, New Delhi.
- Nambiar, R.K (2007), Text book of Environmental Studies, SCITECH Publication (India) Pvt. Ltd, Chennai.
- P.C.Varghese (2013) Building construction, PHI learning Delhi
- P.S Ramakrishnan, (2009) Ecology and Sustainable Development, National Book Trust India, New Delhi.

CLINICAL NUTRITION AND DIETETICS

Course Code: HS020102

Total hours: 72 hours

Credit: 4

CORE

Learning outcomes:

- To understand the competency and the role of nutrition in different therapeutic conditions.
- To understand the role of dietician.
- To gain knowledge about the principles of diet therapy and planning therapeutic diets.
- To develop aptitude for taking up dietetics as a profession.

Course Outline

Module 1: Concept of Diet therapy and Nutrient-Drug Interaction: 12 hours

Role and types of dietitian, Team approach to nutritional care.

Routine hospital diets, Mode of feeding, Pre-operative and Post-operative diets and Refeeding syndrome.

Nutrient and Drug interaction- Effect of drugs on ingestion, digestion, absorption and metabolism of nutrients. Effect of nutrients on absorption and metabolism of drugs.

Module 2: Diet in Non-Communicable diseases: 12 hours

Etiology, Clinical Symptoms and Dietary Management in: CHD- Hyperlipedemia, Hypertension, Atherosclerosis; Diabetes mellitus; Cancer

Module 3: Diet in special conditions 12 hours

Allergy: definition, classification, symptoms, common food allergies, immune mechanism of food allergy, diagnosis and diet management.

Burns: types of burns, computation of percentage of burns. Nutritional management.

Diet for infectious diseases: Types, Aetiology, Metabolic changes in infections/fever, dietary considerations in typhoid, influenza, malaria, and tuberculosis.

Medical nutrition therapy for HIV infection and AIDS. Nutrition and immune response.

Module 4: Diet in Gastro intestinal Disorders**18 hours**

Peptic ulcer: Symptoms, Clinical Findings, Treatment, Dietary modification.

Diarrhoea: Classification, Modification of diet.

Constipation, pancreatitis, crohn's diseases, irritable bowel syndrome, ulcerative colitis:

Aetiology, Symptoms and Dietary management

Module 5 : Diet in diseases of the Liver and Kidney**18 hours**

Liver Diseases: Agents responsible for Liver damage, Damages caused to Liver.

Etiology, symptoms and dietary treatment in: Infective Hepatitis, Cirrhosis and Hepatic encephalopathy and cholelithiasis.

Renal diseases: Basic renal function, symptoms and dietary treatment in acute and chronic glomerulonephritis, Nephrosis, renal failure, dialysis. Urinary calculi-causes and dietary treatment. Nutritional management in dialysis.

Recommended References:

- Gibney MJ, Elia M, Ljungqvist & Dowsett J. (2005) Clinical Nutrition. The Nutrition Society Textbook Series. Blackwell Publishing Company.
- Mahan, L. K. and Escott Stump. S. (2008) Krause's Food & Nutrition. Therapy 12th ed. Saunders-Elsevier.
- Shils, M.E., Shike, M, Ross, A.C., Caballero B and Cousins RJ (2006). Modern Nutrition in Health and Disease. 10th ed. Lipincott, William and Wilkins.
- Robinson Ch., M.B. Lawlea, W.L., Chenoweth, And A.E., Carwick : Normal And Therapeutic Nutrition, Macmillan Publishing Company.
- Williams, S.R. (2001) Basic Nutrition and Diet Therapy. 11th ed. Times Mirror Mosby College Publishing.
- ICMR (2017) Indian Food Composition Tables. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- Garrow, J.S., James, W.P.T. and Ralph, A. (2000) Human Nutrition and Dietetics. 10th ed. Churchill Livingstone.

PATTERN MAKING AND GRADING

Course Code: HS020103

Total hours: 72 hours

Credit: 4

CORE

Learning outcomes:

- To describe different pattern making and grading techniques
- To explain the principles of pattern making
- To experiment with different layout techniques
- To apply the drafting technique to prepare sample patterns for garment parts
- To design garments incorporating different features
- To carry out the common pattern alteration methods

Course Outline

Module 1: Principles of pattern making and grading **12 hours**

Pattern making – Drafting and Draping, Tools and equipments used for pattern making, Principles of Pattern making, Dart manipulation, Added fullness. Grading- definition, types- manual and computerized, software's used

Module 2: Sleeves **12 hours**

Sleeves – definition, types, set-in-sleeves – plain sleeve, variations of puff sleeve, bishop sleeve, bell, circular. Modified armhole – squared armhole and cap sleeve. Sleeve and bodice combined – raglan, kimono and dolman

Module 3: Collars and Yokes **18 hours**

Collars – definitions, types, peter pan, sailor, square, rippled, full shirt collar, open collar, Chinese, turtle neck, shawl collar . Yokes – simple yoke, yoke with fullness within the yoke, yoke supporting/ releasing fullness.

Module 4: Skirts and Pockets**18 hours**

Skirts- Skirts with minimum flare, gathered, pleated, gored, semi- circular, circular, skirt with asymmetrical hemlines.

Pockets – types – patch pocket, bound pocket, pocket in a seam, front hip pocket.

Module 5: Pattern Alteration and fit**12hours**

Pattern alteration –importance of altering patterns, general principles for pattern alteration, common pattern alteration in a garment

Fitting - Standards of a good fit, steps in preparing a top/blouse for fitting, checking the fit, solving fitting problems, fitting techniques.

Recommended References:

- Armstrong, H. J (2007) Pattern making for Fashion Design, Harper& Row publication
- Mary Mathews (2008) Practical Clothing Construction, Part II, Bhattaram's Reprographics (P) Ltd, Chennai.
- Zarapkar K.R.(2008) Zarapkar System of Cutting, Navaneet Publications India Ltd., Gujarat.
- Mullick .P.(2002) Garment Construction Skills, Kalyani Publishers, New Delhi

EARLY CHILDHOOD EDUCATION

Course Code: HS020104

Total hours: 54 hours

Credit: 3

CORE

Learning outcomes:

- To recognize the contributions of Philosophers and National agencies to ECCE
- To understand the organization and management of pre-schools
- To identify the pre-school curriculum
- To analyse the different approaches and effective methods in curriculum transaction

Course Outline

Module 1: Introduction to Early Childhood Education (ECE) 8 hours

Significance and objectives of ECE; Contributions of Tagore, Gandhi, Krishnamurthy, Aurobindo, Froebel, Maria Montessori, Rousseau to the development of ECE; Types of preschools - Playschool, Day Care, Montessori, Kindergarten, Anganwadi.

Module 2: Perspectives and policies in early childhood care and education 10 hours

Contribution of five year plans to ECCE; Contribution of national agencies and programmes to ECCE: ICCW, IAPE, NCERT, UNICEF, ICDS, NCTE; Early childhood education in India

Module 3: Programme planning, organization and management 14 hours

Principles of programme planning, Long term and short term planning, Daily programme planning; Pre-school organization - School premises, Equipments needed, Staff management, Qualities of a good ECCE teacher, Maintenance of records and registers.

Module 4: Curriculum for pre-school education 12 hours

School Readiness Curriculum – physical, cognitive, socio-emotional dimensions; characteristics of learning experiences and approaches. Early years curriculum – language and literacy, numeracy skills, environmental awareness, aesthetics, creative expression and appreciation of the arts, art and craft, music, movement and drama, self and social development, perceptual, fine and gross motor skill development.

Module 5: General principles to curricular approaches

10 hours

Importance of activity based, play-way, child-centred, theme-based, holistic, joyful and inclusive learning in early years; Importance of story-telling, puppetry, musical and rhythmic exercises, dramatization, role play, art activities, indoor and outdoor play, field trips and explorations as effective methods in curriculum transaction; Significance of play in Early Childhood Education.

Recommended References:

- Aggarwal .J.C., Gupta s. (2007) Early Childhood Care and Education: Principle And Practices, Shipra Publications.
- Curtis. A, O'hagan.m, Care and Education in Early Childhood: A Student Guide To Theory and Practice, Routledge Publishers.
- Early-childhood-care-and-education-in-india-1.pdf
- Gupta, S. M. Early Childhood And Education, Phi Learning Publishers
- www.educationforallinindia.com
- Krogh,s.l,slentz.k.l. (2010) Early Childhood Education: Yesterday, Today, Tomorrow, Routledge Publishers
- Morrison, G.S (2011) Early Childhood Education Today, Pearson Publishing.
- Panda , K.C (1997) Education of The Exceptional Children, Vikas Publishing
- Whitebread, D (2011) Developmental Psychology and Early Childhood Education; A Guide for Students for Practioners, Sage Publications.

KINDERGARTEN TRAINING /ECCE/ SPECIAL EDUCATION

(PRACTICAL AND INTERSHIP)

Course Code: HS020105

Teaching hours: 10hrs /week

Credit: 4

The student will be required to undergo an internship/field placement for a total duration of 2 weeks during (10 days) or during their allotted practical hours in the 2nd semester in their chosen area of interest which will facilitate their pursuing a professional career in the same field. It is mandatory that the organization/institutions (private or public) be of good professional standing. The list could include Preschools, Nurseries/ Anganwadies / Balwadies, special schools/ ADHD etc. The students after internship would be required to submit written reports which include schedule and plan of teaching practice. It is also envisaged that the participating organization/schools/institution will give their performance appraisal of the student's work.

Course Outcomes

- To acquire knowledge in planning, organizing and implementing programmes in different preschools
- To provide opportunities to observe and handle the tasks and responsibilities of persons involved in educating children with special needs
- To develop skills in organizing community and parental awareness programmes in rural and urban areas relating to early childhood.
- To recognise the importance of celebrating days of National importance in pre-schools.
- To provide hands-on experience for higher proficiency in their selected area of expertise by placement / internship in their pursuing a professional career in the same field.

Course outline

Module 1: Visits to early childhood care institution

Visits to institutions concerned with early childhood education – Day care centre/ Play home/ Crèche in different areas and prepare a report

Module 2: Visits to special school

Undertake visit to special school to learn about their functioning, administration, organizational set up and curriculum.

Module 3: Awareness programmes for parents/teachers

Give an awareness programme for parents/teachers on any aspects related to children.

Module 4: Observation of days of National importance

Observe and report celebrations in a nursery school (I) festivals (Christmas/onam), (II) days of national importance (independence day/children's day).

Module 5: Internship

Report on internship and preparation of teaching aids for internship in nursery/anganwadi/ balawadi/ special school.

SEMESTER II

FUNDAMENTALS HOUSING AND INTERIOR SPACE DESIGN

Course Code: HS020201

CORE

Total hours: 72 hours

Credit: 4

Learning outcomes:

- To create an understanding about the changes in trend in the field of housing
 - To know the materials used for the construction
 - To familiarise the areas of interior designing
 - To make aware about the aspects of ergonomics for space utilization

Course outline

Module 1: Introduction to Housing

18hours

Functions, Principles and Factors in planning interiors: Grouping of rooms, orientation, ventilation, circulation, spaciousness, privacy, flexibility, services, aesthetics and cost, selection of site, Vaastu Shastra - Principles and Practice, Structural features of residential buildings in different geo-climatic conditions. Consideration for special needs - children, aged, and differently abled.

Module 2: Housing-components and supportive services

12hours

Major components of a house- foundations, walls, floor and roof; Emerging techniques in the house construction - Low-cost building materials and fabrication techniques; Eco and Ergo-friendly house design – green housing, geriatric housing. Building supportive services - drainage, electricity, fire resistance, security systems. Construction techniques for safety - Damp proofing, fire proofing, termite proofing, sound proofing. Rain water harvesting.

Module 3: Fundamentals Interior Design

12hours

Definition, Objectives, Types, Elements and Principles of Design, Colour- Colour Harmonies, Psychological effects of colours. Effect of interior design and decoration on family well-being with reference to functionality, aesthetics and personality.

Module 4: Trends in residential interiors**12hours**

Trends in decoration treatments for interiors and interior backgrounds: furniture, furnishings, lighting, fittings and fixtures, surface materials, finishes, accessories and storage. Modular kitchen- advantages and material used. Selection and placement of accessories – pictures, art, craft, sculptures, antiques, indoor plants, flower arrangement.

Module 5: Ergonomics in Interior space design**18hours**

Ergonomics- Importance, Principles and scope, Effect of wrong postures on muscular skeletal system, Ergonomical Principles and methods considered while designing workplace / kitchen/ office, storage, Environmental factors in Interior space designing-Thermal comfort, lighting, colour, Noise and Music on productivity and well- being.

Recommended References:

- Ambadker S N. 2000. Rural Housing: Agro-socio-economic Impact. Special Indian Ed. Agrobios.
- Lal A K. 1999. Handbook of Low Cost Housing, New Age International. Mahadeva M. 2002. Housing in India: The Situation, Development and Challenges. Orient Longman Publ.
- Morris EW. 1979. Housing Family and Society. John Wiley & Sons. Raja Rao YN & Subrahmanyam Y. 2002. Planning and Designing of Residential Buildings. Standard Publ.
- Agarwala S C., 2008. Architecture and Town Planning, Dhanat Rai and Co., N. Delhi
- Arora and Bindra, Building Construction
- Kasu A., Interior Design, Asish Book centre, New Delhi
- Kerala Building Rules (KBR) (2010)
- Punmia B C.(1993), Building Construction, Laxmi Publications, N.Delhi
- Rangwala S. C, Engineering Materials, Charotar Publishing, Anand
- Rangwala S.C, Town Planning, Charotar Books, Anand

- Aggarwal, D.K (2006) Kitchen Equipment and Design, Aman Publications, New Delhi
- Grandjean, E (1985) Fitting the Task to the Man and Ergonomic Approach, Taylor and Francis, London.
- Joshi. S (1998) Ergonomics, Dept. of Home Management, The M.S. University of Baroda, Vadodara.
- Nag, P. K, Ergonomics and Work Design, New Age International(P)Ltd., New Delhi
- Varghese, M. A, Saha, P.N and Atreya, N(2000) Ergonomics of Women at work, Allied Publisers Ltd., Mumbai Himalaya, Bombay

PUBLIC HEALTH NUTRITION

Course Code: HS020202

CORE

Total hours: 72 hours

Credit: 4

Learning outcomes:

- To understand the basic concepts public nutrition.
- To understand the nutritional disorders prevalent in India.
- To apply the knowledge of mass media for nutrition education.
- To explain the National Nutritional programmes.
- To describe the Health Care service in India.

Course outline

Module 1: Public Nutrition

12 hours

Aim, scope and content of Public Nutrition.

Role of Public Nutritionist in National development.

Define nutrition education, importance of nutrition education, objectives of nutrition education, Factors to be considered in planning the Nutrition Education.

Types of mass media for nutrition education 1) Print Media: •Newspapers •Magazines •Booklets and Brochures •Billboards 2) Broadcast Media: •Television •Radio 3) New Age Media: •Mobile Phones •Computers •Internet •Electronic Books.

Module 2: Health Care service

12 hours

Health – definition and dimensions. Determinants of community health, community health indicators.

Definition and meaning of health care, Health care service – Basic requirements. Levels of health care- primary, secondary, tertiary levels.

Factors affecting Health- Human biology, External environment, Socio economic factors, Availability of public health service and Social Support System.

Module 3 : Public health problems in India**18 hours**

Types, Etiology, Prevalence, Symptoms, Prevention and treatment of- Anemia, Vitamin A Deficiency disorders, Iodine Deficiency Disorders, Fluorosis, Protein Energy Malnutrition
Dual Burden of Malnutrition in India - Under nutrition and Overweight/Obesity

Module 4 : National and International Nutrition Programmes**12 hours**

National Nutrition Policy (NNP), Primary Health centers (PHC) Objectives and Functioning of ICDS, NHM, National Organizations - ICMR, NIN, NNMB, ICAR, CFTRI, NIPCCD.
International organizations - FAO, WHO, UNICEF, UNESCO, World Bank.

Module 5 : Approaches/ Strategies for Improving Nutrition and Health Status of the Community , Food and Nutrition Security.**18 hours**

Concepts and definitions of food and nutrition security at national, household and individual levels.

Food based interventions including food fortification, dietary diversification, supplementary feeding and biotechnological approaches.

Recommended References:

- Nutrient Requirements and recommended Dietary allowances for Indians. A report of the expert group of the Indian Council of Medical Research ICMR 2010.
- Maurice B Shils, Moshe Shike.A,Catherine Ross, Benjamin Cabellero, Robert J Cousins. 2006. Modern Nutrition in Health and Disease edited by, Lippincott Williams and Wilkins .
- Nutrient Requirements and Recommended Dietary allowances for Indians. A report of the expert group of the Indian Council of Medical Research ICMR 2010.
- Gupta P. 2005. Textbook of Community Medicine. CBS Publishers and Distributors.
- Sheila ChanderVir.2011. Public Health Nutrition in Developing Countries Edited by Woodhead Publishing India,Part I & II.
- Gibson R S. (2005). Principles of Nutritional Assessment. 2nd ed. Oxford University Press.
- Kaufman M. (2007) Nutrition in promoting the public health strategies, principles and practices. Jones and Barlett Publishers.

- Park, K. (2009) Park's Textbook of Preventive and Social Medicine, 20th ed. Jabalpur M/s. Banarsidas Bhanot. Publishing India, Part I & II.
- Nutrient Requirements and recommended Dietary allowances for Indians. A report of the expert group of the Indian Council of Medical Research ICMR 2010.
- Sheila ChanderVir.2011. Public Health Nutrition in Developing Countries, Edited by Woodhead Publishing India, Part I & II.

RESEARCH METHODS AND STATISTICS

Course Code: HS500203

CORE

Total hours: 72 hours

Credit: 4

Learning outcomes:

- To understand the significance of research methods and statistics in Home Science research.
- To understand the types, tools and methods of research and develop the ability to construct data gathering instruments appropriate to the research design.
- To understand and apply the appropriate statistical techniques to analyze numerical data and draw inferences.
- To comprehend the ethics in research and to aid in scientific writing.

Course Outline

Module 1: Fundamentals and Ethics of research

18 hours

Definition, Objectives and Characteristics of research, Types of Research – Basic, Applied and Action research, Exploratory and Descriptive, Ex-post facto research. Ethics in research: Permission, Data Fabrication and falsification, Plagiarism, IPR. Research design: Research problem: sources, Statement of problem, Criteria for the selection of research problem. Definition of concepts, operational definition; variables – independent and dependent, control and intervening variables, Hypothesis: Meaning and importance, types of hypotheses.

Module 2: Sampling techniques, Research methods and tools

12 hours

Sample: Sampling techniques, Size of sample, Merits and Limitations of sampling, Sampling and Non-sampling errors. Methods: Survey, observation, interview, experimental, case study. Tools: Questionnaire, Schedule (for interview and observation) Rating Scales, Attitude Scales. Reliability and validity.

Module 3: Descriptive Statistics**12 hours**

Measures of Central Tendency: Mean, Median, Mode. Measures of Dispersion: Range, Quartile deviation, Standard deviation. Coefficient of variation: Correlation and Regression. Coefficient of Correlation: Karl Pearson and Rank Correlation Coefficients.

Module 4: Concepts of Probability, Random Variable and Sampling distributions 18 hours

Random variable, Normal distribution, Sampling distributions. Standard normal distribution and calculation of probability of events: F, χ^2 and t distributions. Standard error, its importance and applications. Testing of Hypothesis: Type I and Type II errors, Significance Level and size of test, critical Region, concept of P Value in testing. Large and small sample tests (Z, t, F and χ^2 statistics), ANOVA, Use of software packages in data analysis – SPSS

Module 5: Presentation of data and Report writing**12 hours**

Preliminary processing of data: Classification, Tabulation of data, Representation of data: diagrams and graphs, Research report writing: Parts of dissertation- Abstract, Introduction, Review of Literature, Methodology, Results and Discussion, Summary and Conclusion, Bibliography; Articles in journals, Writing for grants.

Recommended References:

- Bandarkar, P.L. and Wilkinson T.S. (2000) : Methodology and Techniques of Social Research, Himalaya Publishing House, Mumbai.
- Batnagar, G.L. (1990) : Research Methods and Measurements in Behavioural and Social Sciences, Agri. Cole Publishing Academy, New Delhi.
- Cooper, H. M (1990). Integrating research: A Guide for Literature reviews (2nd Ed). California: Sage.
- Dooley, D. (1995) : Strategies for Interpreting Qualitative Data: Sage Publications, California.
- Gay, L.R. (1981, 2nd Ed) : Educational Research, Columbus, Ohio.
- Kothari C.R. (2000). Research Methodology, Wiley Eastern Limited, New Delhi.
- Long, J.S. (Ed) (1988) : Common Problems Proper Solutions: Avoiding Errors in Quantitative Research, Beverly Hills, Sage Publications, California.
- Mukherjee, R. (1989) : The Quality of Life: Valuation in Social Research, Sage

Publications, New Delhi.

- Stranss, A. and Corbin, J. (1990) : Basis of Qualitative Research: Grounded Theory Procedures and Techniques, Sage Publications, California.
- Bandarkar, P.L. and Wilkinson T.S. (2000) : Methodology and Techniques of Social Research, Himalaya Publishing House, Mumbai.
- Batnagar, G.L. (1990) : Research Methods and Measurements in Behavioural and Social Sciences, Agri. Cole Publishing Academy, New Delhi.
- Cooper, H. M (1990). Integrating research: A Guide for Literature reviews (2nd Ed). California: Sage.
- Dooley, D. (1995) : Strategies for Interpreting Qualitative Data: Sage Publications, California.
- Gay, L.R. (1981, 2nd Ed) : Educational Research, Columbus, Ohio.
- Kothari C.R. (2000). Research Methodology, Wiley Eastern Limited, New Delhi.
- Long, J.S. (Ed) (1988) : Common Problems Proper Solutions: Avoiding Errors in Quantitative Research, Beverly Hills, Sage Publications, California.
- Mukherjee, R. (1989) : The Quality of Life: Valuation in Social Research, Sage Publications, New Delhi.
- Stranss, A. and Corbin, J. (1990) : Basis of Qualitative Research: Grounded Theory Procedures and Techniques, Sage Publications, California.

EARLY INTERVENTION FOR INFANTS AND EXCEPTIONAL CHILDREN

Course Code: HS020204

Total hours: 54 hours

Credit: 3

CORE

Learning outcome

- To identify developmental delays among children
- To recognize the tools and techniques in developmental assessment
- To describe early stimulation and intervention programmes
- To classify exceptional children and identify the educational provisions and interventions need

Course outline

Module 1 : Developmental Delays and Assessment

8 hours

Definition of developmental delay, risk factors leading to developmental delay. Home environment and all round development. Developmental assessment: Definition, Purpose, Ten Commandments in Assessment.

Module 2: Tools and Techniques in Developmental Assessment

12 hours

Tools and Techniques for the Assessment of developmental delay (0- 2 years): TDSC, DASII, DDST, Neurological stimulation- Amiel- Tison Passive Angles Method, CDC grading for motor milestones, DOC, Assessment of Visual Impairment in Early Infancy, Assessment of Hearing loss in Early Infancy

Module 3: Early Stimulation and Intervention

14 hours

Meaning and definition of early stimulation, stimulating the senses and its benefits, Toys and play as sources of stimulation and learning. Definition of early intervention, Intervention for head control, to promote rolling, creeping, crawling, sitting, standing and for the development of hand function; Sensory integration, occupational therapy, speech, language and communication.

Module 4: Exceptional children**12 hours**

Definition and classification of exceptional children; Causes, identification, characteristics educational provisions and intervention for physically challenged, mentally challenged, visually impaired, hearing impaired, emotionally disturbed, socially maladjusted and gifted children.

Module 5: Learning disabilities, ADHD and ASD**8 hours**

Definition, identification, characteristics, causes, educational strategies and intervention for children with learning disabilities, Attention Deficit Hyperactive Disorder (ADHD) and Autism Spectrum Disorder (ASD)

Recommended References:

- M.K.C. Nair (2014), The Development Of The Infant And The Young Child: Normal And Abnormal
- Whitebread, D (2011) Developmental Psychology And Early Childhood Education; A Guide For Students For Practioners, Sage Publications
- Hetherington and Parke (1999) Child Psychology: A Contemporary View Point, Tata Mcgraw Hill, Newyork
- Santrock, J. W. (2010), Child Development An Introduction
- Chisholm, J.S (2000) Development and Adaptation in Infancy. New Direction for Child Development
- Cole, M & Cole, S (2009)The Development of Children. Newyork: Scientific American Books.
- Guide book- mother & child protection card, Ministry of Human Resource Development, Govt. of India.
- Nair M.K. C (2004) , Module on early stimulation
- Osofsky, J.D. (2007). Handbook of Infancy, New York: Wiley & Sons

FASHION ILLUSTRATION AND DESIGN
(PRACTICAL)

Course Code: HS020205

Teaching hours: 10 hours/week

Credit: 4

CORE

Learning outcomes:

- To experiment with different lines and shading techniques
- To create effects using rendering techniques and different mediums
- To create designs applying the elements and principles of design
- To illustrate fashion figures and garment details
- To develop dress styles suitable for different occasions
- To create samples for surface embellishment techniques
- To develop a fashion portfolio based on a theme

Course Outline

Module 1: Drawing Basics and Mediums

Drawing basics-lines, shading and rendering techniques- stripes, checks, plaids, patterns

Mediums of illustration- pencil/ colour pencils/crayons, ink pen/ball pen/sketch/ gel pen/ chalk/charcoal/paint.

Appreciation of Elements and Principles of design.

Module 2 : Figure Drawing

Figure drawing- 8 head and 10 head

Fashion Poses

Module 3 :Fashion Illustration

Drawing fashion details- sleeves, collar, cuffs, yokes, skirts.

Illustrate 2 dress styles each suitable for

- Formal wear
- Casual wear

- Party wear

Module 4 : Surface Embellishment Techniques

Any three samples:- Applique/Hand embroidery/ bead work/traditional embroidery/patch work/
traditional embroideries/Zardosi work/Mirror work

Module 5 : Fashion Portfolio Presentation

To be planned based on a theme for a selected season and occasion. The presentation should comprise the following using any software.

- a. Theme Board- depicting the theme selected
- b. Client Board- specifying the details of the client: place of residence, interests, hobbies, occupation, nature of work, age, preferences if any etc
- c. Mood Board- shows the mood/inspiration from which design is developed
- d. Colour Board-shows the colours used in the collection
- e. Fabric Development board- fabric selection based on the mood board is shown
- f. Fabric Board- shows the fabrics used in the garment with details
- g. Design Development Board – shows how a design is developed from flat sketch to illustration
- h. Final presentation- constructed garment is put on the model and photographed
Number of garments in a collection is 2.

Recommended References:

- Fashion Design Drawing & Presentation, Ireland Patrick John.
- Fashion design Illustration: Children, Ireland Patrick John,
- Fashion Design Illustration : Men, Ireland Patrick John
- Foundation in fashion design and illustration – Julian Seaman.
- Fashion Sketch Book, by BinaAbling, Fair child publication, New York

SEMESTER III
HOUSEKEEPING

Course Code: HS020301

CORE

Total hours: 72 hours

Total Credit: 4

Learning outcome

- To gain insight into aspects of hospitality for guest satisfaction
- To accomplish effective communication in dealing with guest in different hospitality industry.

Course outline

Module 1: Front Office – Set up and functions **18 hours**

Importance of the department, Layout and planning, Staffing pattern and duties, Basic Terminology used in the department, Qualities and etiquettes of front office staff , VIP Procedures, Computerized reservation forecasting, Cancellation, penalty, Arrival and departure, C-Form, procedures of check- in and check-out, Key handling and control, Luggage handling, Lobby management, Co-ordination and communication of front office with other departments.

Module 2 : Functions of Housekeeping **12 hours**

Importance and need of Housekeeping Department, Organization and duties, Hierarchy and Job descriptions, Layout, Inter-departmental coordination and communication, Importance and functions, Manpower planning, Recruitment, training and appraisals

Module 3: Linen room and laundry management **12hours**

Linen room, - Classification and types - selection of linen—par stock determination, storage, distribution and control of linens and uniforms, condemnation and reuse Functions and Layout, Physical Attributes, activities of the linen room, linen storage and control, Laundry-types, dry cleaning fabric stain removal.

Module 4 : Upkeep, Sanitation and Safety Aspects**18 hours**

Cleaning Guest rooms and service areas, Rules, procedures and principles, types of room cleaning- daily, weekly, spring cleaning etc, Equipments, cleaning agents and maid's trolley, Sterilization, disinfection, Control of infestation, Room inspection checklist, Integrated Waste Management (IWM), First Aid and safety means and measures, fire preventions and control, accident prevention, major security measures

Module 5 : Aesthetic treatments of Interior environment**12 hours**

Interior decoration in Commercial / hospitality areas, window treatments, Selection and care of Furniture, furnishings, lighting and accessories, Floral decorations and layout, Indoor gardens and Landscaping

Recommended References:

- G. Raghubalan and Smritee Raghubalan.,(2011)Hotel House keeping Operations and Management., Oxford University Press , New Delhi.
- Andrews S., (2000) Hotel Front Office Training Manual, Tata Mc Graw Hill Publications, New Delhi
- Andrews S., (2000) Hotel Housekeeping Training Manual, Tata Mc Graw Hill Publications, New Delhi
- Ball S. et al, (2003) Hospitality Operation-A System Approach, Thomson Learning, U. K.
- Branson J.C. and Lennox M., (1988) Hotel, Hostel and Hospital Housekeeping, Edward Arnold Publishers, London
- Chakravarthy, Hotel Management (Vol. I and II)
- Ismail A., Front Office –Operations and Management, Thomson and Delmar Publishers, Canada
- Krishna, B. And Churchland, S., (2004) Hotel Accommodation and Operations, Indo-Swiss Publishers, Mumbai
- Negi J., (1997) Professional Hotel Management, S, Chand Company, N. Delhi
- Raghubalan and Smritee Raghubalan, Hotel Housekeeping- Operations and Management, Oxford University Press, New Delhi.

FOOD SERVICE MANAGEMENT

Course Code: HS020302

Total hours: 72 hours

Credit: 4

CORE

Learning outcomes:

- To provide in-depth awareness about food service systems and the role of hospitality and tourism in nation's economy stability.
- To enable the students to understand the organization, its operations and its management
- To understand the role of basic measures adopted in food service institutions.

Course outline

Module 1: Introduction to food service Industry, scope and types of Foodservice establishments. 12 hours

Definition, Principles and functions and scope of food service institutions. Types of food service industry: Commercial Hotels, Hospitals, School, colleges, hostels, old age homes, Industrial canteens, Travel catering-Railway, Airlines and Sea. Modern trends in the Hotel and Catering industry: - Ecotels - Fast Food outlets - Adventure Tourism - Theme Restaurants - Welfare Catering.

Planning and Setting up a Food Service Unit.

Module 2 : Food Service System 12 hours

Distribution Systems: Centralised System, Decentralised System, different cook chill systems.

Food service systems: Conventional, Ready Prepared, Commissary and Assembly.

Types of Table setting- Basic, Casual, Formal. Rules for Table service

Food service styles: French, Russian, Gueridon, American, Buffet, Silver, Family Style, Self-service, tray service and waiter-waitress service. Sequence of Service of food.

Napkin folding and flower arrangement.

Module 3: Food Service Equipments, Kitchen Planning and Management **18 hours**

Classification of food service equipments: Weight or Size, Order of Use, Mode of operation.
Factors affecting selection, purchase and use of equipment. Use and care of major equipments.
Size and Type of Kitchens, Developing Kitchen Plans, Work Simplification, Layout of Kitchens, Storage units, Flooring and Maintenance of kitchens.

Module 4 : Quantity Food Production **12 hours**

Introduction, Principles of food preparation, Principles of food purchasing, Methods of food purchasing, Storages of foods, Principles involved in construction of large scale cooking recipes. Definition of standardization of recipe and Standard portion size, Portioning equipments, Portion control, Use of left over foods. Types of cuisines and its significance: American, Continental, Italian, French and Indian. Types of menu.

Module 5: Tools of Management **18 hours**

Tools of management- Definition, classification:- A. Tangible tools- Organization chart-structure and its function, Job description, Job analysis, Job specification, Work schedule, Job analysis, Production service and staff analysis statements, Budget and Benchmarking.
B. Intangible tools- Leadership style, Training, decision making, Communication (Methods and barriers).

Recommended References:

- T. Ramaswamy: Principles of Management, Himalaya Publication.
- West B Bessie & Wood Levelle (1988) Food Service in Institutions 6th Edition Revised By Hargar FV, Shuggart SG, & Palgne Palacio June, Macmillian Publishing Company New York.
- Sethi Mohini (2005) Institution Food Management New Age International Publishers
- Tripathi P C & Reddy PW (2008) Principles of Management 3rd edition Tata Mc Graw Hill Book Company
- Knight J B & Kotschevar LH (2000) Quantity Food Production Planning & Management 3rd edition John Wiley & Sons
- Dessler Gary (2007) Human Resource Management 11th edition Prentice Hall New Jersey
- Luthans Fred (2004) Organisational Behaviour 10th Edition Mc Graw Hill, International

TEXTILE TESTING AND ECO-FRIENDLY TEXTILES

Course Code: HS020303

Total hours: 72 hours

Credit: 4

CORE

Learning outcomes:

- To explain textile testing and state the objectives
- To describe the selection of samples for textile testing
- To describe and discuss the testing of fibre, yarn and fabric
- To determine the tests suitable for assessing properties of textile fabric
- To classify eco-textiles and explain eco-friendly fibres.
- To list and discuss on eco-friendly processing

Course Outline

Module 1: Fibre and Yarn Tests

18 hours

Introduction to textile testing, objectives of testing, Selection of samples for testing .Fibre testing- Length, fineness and Maturity ratio. Yarn testing - yarn count, Yarn twist.

Module 2 : Fabric Testing

12 hours

Fabric testing- fabric dimensions- length, width, thickness, determination of fabric weight - GSM measurement and its application to different fabrics, cover factor, air permeability, stiffness, drape, crease resistance, pilling, wicking and Absorbency

Module 3: Colour Fastness and Tensile Properties of Fabric

12 hours

Determination of colour fastness to laundering, rubbing, light and perspiration, Fabric shrinkage. Fabric strength- bursting strength, abrasion resistance and tear strength.

Module 4 : Eco-friendly Textiles**18 hours**

Eco textiles classification, eco-friendly fibres - organic cotton, jute, bamboo and banana fibre, Eco friendly processing- Bio Scouring, Bio finishing, Enzyme wash, Bio – polishing, Eco-labelling.-Eco parameters-Regulations: ISO, REACH, Indian ban

Sensitizing dyestuff-Allergenic, carcinogenic, harmful dyes.

Natural Dyes: Need for natural dyes – properties – classification —Advantages and drawbacks of natural dyes.

Module 5: Newer Trends in Textiles**12hours**

Bio-fibres, Nanotechnology in textiles, technical textiles, Smart fabrics. Functional clothing- Protective, sports, military.

Recommended References:

- Handbook of Technical Textiles by Horrocks.A.R.,Anand.S.C., SubhashAnand, Woodhead Publishing series.
- Textiles for protection by Richard A Scott, The Textile Institute, Woodhead Publishing limited
- Intelligent textiles and clothing, by Mattila.H., The Textile Institute, Woodhead Publishing limited
- Physical Testing of Textiles by B.P.Savllle, The Textile Institute, CRC Press, Woodhead Publishing limited
- Fabric testing, Editor: Jinlian H.U, The Textile Institute, CRC Press, Woodhead Publishing limited

ENTREPRENEURSHIP DEVELOPMENT

Course Code: HS020304

CORE

Total hours: 54 hours

Credit: 3

Learning outcome

- To develop understanding of enterprise
- To develop understanding about entrepreneurial growth
- To understand the various infrastructures for employment and income generation.
- Acquire skills to start a venture.

Course Outline

Module 1 :Introduction – Entrepreneurship

12 hours

Concept of entrepreneurship, Growth of entrepreneurship in India, Role of entrepreneurship, Factors affecting entrepreneurial growth. Women Entrepreneurship -Status and categories of employment of women in India, Challenges of women entrepreneurs, Entrepreneurship development programmes-Current scheme; Annapurna scheme, Stree Shakti package for women entrepreneur, Bharatiya Mahila Bank Business, Dena Shakti scheme, Udyogini scheme, Cent Kalyani Scheme, Mahila udyam Nidhi Scheme, Mudra Yojana scheme for Women, Orient Mahila Vikas Yojana Scheme.

Module 2: Forms of Entrepreneurial Organizations

10 hours

Scope and Objectives of modern business, Essentials of successful business, Sole proprietorship, Partnership, Joint Stock company, State enterprises and Co-operative societies – meaning, merits and demerits of each, Types of important documents of companies.

Module 3: Launching and organizing Small scale venture

8 hours

Small scale industries- Definition, types, procedure for setting small scale unit, training facilities for small unit, problems of new small scale unit, institutional support system; incentives and facilities.

Module 4 : Finance**12 hours**

Finance planning - significance, features and functions. Maintenance of essential account records - Book Keeping(single and double entry system), Books of Account, Journal ledger, trial balance, Profit and loss calculation ,balance sheet. Costing and pricing.

Module 5: Recent trends in Product development and marketing**12 hours**

Marketing infrastructure, Advertising and salesmanship, Quality control, maintaining and improving standards. Packaging, Standardization (ISO, BIS Agmarks and others),

Recommended References:

- Akhouri, M.M. P., 1990, „Entrepreneurship for women in India“ NIESBUD, New Delhi.
- Ansari, M.A and Jain. G.R 1988. „Self-made impact Making Entrepreneurs“, EDII, Ahmedabad.
- Deshpande, M.V (1984) Entrepreneurship of small scale industries, concept, growth, sand management Deep and Deep Publications,D-1/24, R- Garden, New Delhi(Unit1- III).
- Entrepreneurship Development (1982). Institute of India. A handbook for New Entrepreneurs. Entrepreneurs Development Institute of India. (Unit IX, X).
- Gundry Lisa K. &Kickul Jill R.,2007, Entrepreneurship Strategy: Changing Patterns in New Venture Creation, Growth, and Reinvention, SAGE Publications, Inc
- Hisrich Robert, D. and Brush Candida, G., 1986,“ The Women Entrepreneurs” D.C.
- Health and company/ Laxington, Toronto.

**DIET THERAPY AND PROGRAMME PLANNING IN
PUBLIC HEALTH NUTRITION
(PRACTICAL AND INTERNSHIP)**

Course Code: HS020305

Teaching hours: 10hrs/week

Credit: 4

Learning outcomes:

- To provide hands on experience for higher proficiency in their selected area of expertise by placement/internship in pursuing a professional career in the same field.
- To provide opportunities to understand and experience ground realities/program structures.
- To develop skills in analysing of nutritional assessment data.
- Plan and prepare suitable therapeutic diets based on patient needs for various diseases/disorders.

Course outline

1. Market Survey on commercial nutritional therapeutic products.
2. Planning, purchasing, preparing and serving foods in the college cafeteria. Cost and profit Analysis / food fest (2 or 3 days).
3. Assessment of nutritional status in urban or rural community (anthropometric measurement, clinical examination, dietary survey).
4. Preparation of Communication aids for different age groups.
5. Planning and preparing diets for:
 - a. Gastrointestinal disorders- Peptic Ulcer, Ulcerative colitis, Celiac Disease.
 - b. Liver diseases- Hepatitis, cirrhosis, Hepatic Encephalopathy.
 - c. Metabolic disorders – Diabetes mellitus, Obesity and underweight
 - d. Cardio vascular disorders- Atherosclerosis, Hypertension.
 - e. Renal disorders- Nephritis, Renal failure, Nephrotic Syndrome, Diabetes with Chronic Renal Failure leading to ESRD.
 - f. Fever -Typhoid, Tuberculosis

6. Dietetics Internship

- a. Hospital internship in an established dietary department for 15 days.

Case Study

1. Selection of two admitted patients from a hospital.
2. Study the clinical, nutritional and biochemical profile on admission during hospital stay and at discharge.
3. Critically evaluate therapeutic modification of diet.
4. Plan maintenance diet on discharge after diet counseling.
5. Writing of report.

OR

- b. The students can work with NGOs / Government agencies / Hotels/ Food Industries etc.
(Record of practical work done and report of the internship will be valued by external examiners)

Recommended References:

- Edelstein S. (2006) Nutrition in Public Health: A handbook for developing programmes and services. Second Edition. Jones and Bartlett Publishers
- FAO. (1983) Selecting Interventions for Nutrition Improvement. A Manual. Nutrition in Agriculture. No. 3.
- Gibney M.J., Margetts, B.M., Kearney, J.M., Arab, L. (Eds) (2004) Public Health Nutrition. NS Blackwell Publishing
- Klein, R. E. (Ed.) (1979) Evaluating the Impact of Nutrition and Health Programmes. London and New York: Plenum Press.
- Mahan, L. K. and Escott Stump. S. (2008) Krause's Food & Nutrition Therapy 12th ed. Saunders-Elsevier
- Williams, S.R. (2001) Basic Nutrition and Diet Therapy. 11th ed. Times Mirror Mosby College Publishing
- Srilakshmi B, Dietetics , New age international P.Ltd. Publishers, New Delhi, (2012).

SEMESTER IV

DEVELOPMENTAL PSYCHOLOGY AND COUNSELLING SKILLS

Course Code: HS800401

**ELECTIV
E**

Total hours: 90 hours

Credit: 4

Learning outcomes:

- To recognize the nature and scope of psychology
- To describe the various cognitive processes
- To identify the theories of intelligence
- To classify and apply the intelligence tests
- To generalize the importance of guidance and counselling
- To distinguish the approaches and areas of counselling

Course Outline

Module 1 :Nature and Scope of Psychology

14 hours

Definition, Nature, Scope of psychology, Branches and fields of pure and applied psychology, Methods of psychology.

Module 2 :Cognitive processes

20 hours

Sensation, Perception and Attention. Thinking – Definition, Elements or tools of thinking, Types of thinking: concrete thinking, abstract thinking, reflective thinking, creative thinking, critical thinking and associative thinking. Reasoning - Meaning, Definition, Types: inductive and deductive, Problem solving: definition and steps. Memory - Meaning, Types: Sensory, Short-term and Long-term memory; Training in memory, mnemonics. Forgetting – Definition, Types, Ebbinghaus's curve of forgetting

Module 3: Intelligence**18 hours**

Definition, Theories of intelligence: multifactor theory, two-factor theory, group factor theory, theory of multiple intelligence; Assessment of intelligence: classification of intelligence test.

Module 4 I: Introduction to guidance and counselling**18 hours**

Definition and meaning of guidance and counseling; The Counselling process, Types of Counseling: Crisis, Facilitative, Preventive, and Developmental; Qualities and skills of a counsellor; Counsellee Features; Guidance: Characteristics and principles, Functions: Adjustmental, Orientational and Developmental. Types: Vocational, Personal, Economic, Health etc.

Module 5: Approaches and Areas of counselling**20 hours**

Behaviour therapy, Rational Emotive Behaviour Therapy (REBT), Cognitive Behaviour Therapy (CBT), Freud's Psychoanalytic Therapy/psychoanalysis, Carl Roger's Non- directive therapy, Play therapy; Innovative approaches:- Yoga, reiki, life skill education, music therapy, art therapy, biblio therapy, dance therapy, drama therapy, online counselling and horticultural therapy; Areas of counselling: Family counselling, Crisis intervention counselling, Rehabilitation counselling, Academic school counselling, Genetic counselling and Vocational counselling.

Recommended References:

- Mangal S K (2004) Advanced Educational Psychology. Sterling Publishers Pvt Ltd, New Delhi.
- Santrock, J. W. (2005) Psychology, Tata-McGraw Hill, New Delhi.
- Shaffer, D.R. and Kipp K (2007) Developmental Psychology, Childhood and Adolescence (7th edition) Thomson Wadsworth, Australia.
- King, L.A. (2008) The Science of Psychology, McGraw Hill publications, New York.
- Passer, M.W and Smith, R.E (2007) Psychology: The Science of Mind and Behaviour. McGraw Hill (3rd ed) international edition.
- Feldman, R. S. (2009). Discovering the Life Span. Pearson Prentice Hall, McGraw- Hill Publications, International edition, New York
- Dave, L (1991) The Basic Essentials of Counselling, Sterling Publishers Pvt ltd

- Hough, M (2010) Counselling Skills and Theory (3rded), MPG Books, Cornwall, UK
- Jacobs, M (2010) Psychodynamic Counselling in Action (4thed) Sage publications, New Delhi.
- McLeod, J (2003) An Introduction to Counselling (3rded) Open University press, McGraw Hill, Berkshire
- Mearns and Thorne (2007) Person-Centered Counselling in Action (3rded), Sage publications, New Delhi.
- Rao, S.N. (1991) Counselling and Guidance, Tata McGraw Hill Pub, New Delhi
- Rogers C (2003) Client-Centered Therapy: Its Current Practice, Implications and theory, Constable pub, London
- Dave, L (1991) The Basic Essentials of Counselling, Sterling Publishers Pvt ltd
- Hough, M (2010) Counselling Skills and Theory (3rded), MPG Books, Cornwall, UK
- Jacobs, M (2010) Psychodynamic Counselling in Action (4thed)Sage publications, New Delhi.
- McLeod, J (2003) An Introduction to Counselling (3rded) Open University press, McGraw Hill, Berkshire
- Mearns and Thorne (2007) Person-Centered Counselling in Action (3rded), Sage publications, New Delhi.
- Rao, S.N. (1991) Counselling and Guidance, Tata McGraw Hill Pub, New Delhi
- Rogers C (2003) Client-Centered Therapy: Its Current Practice, Implications and theory, Constable pub, London.

FOOD MICROBIOLOGY AND FOOD SAFETY

Course Code: HS800402

Total hours: 90 hours

Credit: 4

ELECTIVE

Learning outcomes:

- To understand the importance of microorganisms in food spoilage.
- To apply the advanced techniques used in food preservation.
- To discuss the procedure adopted in various food operations to prevent food borne disorders and legal aspects involved in these areas.
- To understand the importance of Food Laws and standards.
- To analyze the tests and standards for quality assessment and food safety.

Course outline

Module 1 :History and development of Food microbiology 20 hours

Definition and Scope of Food Microbiology, Role and Significance of Microorganisms in Foods. Parameters Affecting Microbial Growth, Common Food borne Bacteria, Molds.

Module 2: Applications of Food Biotechnology 18 hours

Importance of microbes in food biotechnology: genetically engineered foods, probiotics, prebiotics and single cell proteins. Traditional Indian fermented foods (cheese, wine, vinegar, bread, curd) and their health benefits.

Module 3 :Microbial Food Spoilage and Food borne diseases 18 hours

Sources of contamination and microorganisms involved in spoilages of various foods: Milk, Bread, Canned food, Vegetables and fruits, Fruit juices, Meat, Eggs and Fish.
Food Infections and Intoxications: Staphylococci Poisoning, Botulism, Salmonellosis, Gastroenteritis, Hepatitis A and Cholera.

Module 4: Food Preservation 14 hours

Food Preservation & Principles and methods: Chemicals antibiotics, Radiation, Low and high temperature, High-Pressure Processing Pulsed Electric Fields. Aseptic Packaging, Manothermosonation.

Module 5: Food Laws and standard, Introduction to food quality, Food safety hazards

20 hours

Concepts of food quality, food quality assurance, food safety, Food safety hazards- physical, chemical, biological, allergents. Principles of HACCP.

Role of national and international regulatory agencies: Bureau of Indian Standards (BIS), AGMARK, Food Safety and Standards Authority of India (FSSAI), Codex alimentarius commission, USFDA, International organization for standards (ISO).

Recommended References:

- Early. R. (1995): Guide to Quality Management Systems for the Food Industry, Blackie, Academic and professional, London.
- Gould, W.A and Gould, R.W. (1998). Total Quality Assurance for the Food Industries, CTI Publications Inc. Baltimore
- Pomeraz, Y. and MeLoari, C.E. (1996): Food Analysis: Theory and Practice, CBS publishers and Distributor, New Delhi.
- Bryan, F.L. (1992): Hazard Analysis Critical Control Point Evaluations a Guide to Identifying Hazards and Assessing Risks Associated with Food Preparation and Storage. World Health Organization, Geneva 5. Kirk, R.S and Sawyer, R. (1991): Pearson s Composition and Analysis of Foods, Longman Scientific and Technical. 9th Edition, England.
- Food and Agricultural Organization (1980): Manuals of Food Quality Control. Additives Contaminants Techniques, Rome.
- William C F, Dennis C Westhoff, Food Microbiology, 2014, Mcgraw Hill Education Private Limited, New Delhi.
- Jay JM (2004). Modern Food Microbiology (7th ed.). CBS Publishers and Distributors. Springer Publications, Delhi
- William Frazier (2008). Food Microbiology (4th ed.). The Mc Graw Hill Co Inc., New York
- Dr. K. Vijaya Ramesh (2007). Food Microbiology. MJP Publishers, Chennai.
- Adams, M.R and Moss M.G (1995): Food Microbiology, 1st Edition, New Age International (P) Ltd.
- Pommerville C. Jeffrey, (2004) Fundamentals of Microbiology, 7th Edition

GARMENT PRODUCTION TECHNOLOGY AND FASHION MARKETING

Course Code: HS800403

Total hours: 90 hours

Credit: 3

ELECTIVE

Learning outcomes:

- To describe the structure of garment industry and summarize the functions of different departments in garment industry
- To enlist and explain the activities in garment industry
- To examine the equipment and machines used in garment industry
- To define and explain the principles, standards and stages of quality control
- To explain fashion terminologies, factors influencing fashion and analyse fashion cycle
- To define marketing, examine its functions and importance and discuss the components of marketing mix

Course Outline

Module 1: Departments in Garment Industry **20 hours**

Structure of garment industry, Functions of various departments (design department, marketing department, finance department, purchasing department, production department and operations department)

Module 2 : Garment production and quality control **18 hours**

Activities in garment industry- Fabric inspection, various methods of spreading fabrics, use and importance of marker, methods of laying patterns. Types of cutting machine, uses. Fusing, quality aspects in fusing, sewing machines, stitch types, Pressing equipments, packing, warehousing.

Quality Control: Definition, principles of quality control, Quality control standards in textile industry, stages of quality control in apparel manufacturing.

Module 3: Fashion Marketing and Merchandising **20 hours**

Fashion terminology, factors influencing fashion, fashion cycle.

Marketing-Definition, Functions, importance & objectives of marketing, marketing management, marketing mix. Merchandising- definition, role and responsibilities of merchandiser. Visual merchandising-plans and schedule, types of display, elements of display

Module 4 : Product Development **18 hours**

Product- Classification, product life cycle, process of product development, brand & brand image, strategies in branding. Channels of distribution.

Module 5 :Product Pricing **14 hours**

Pricing policies and strategies. Pricing in relation to product type, life cycle and distribution outlets. Costing in apparel industries- methods of costing.

Recommended References:

- Gerry Cooklin , Steven George Hayes (Editor) , John McLoughlin (Editor), Introduction to Clothing Manufacture, 2nd Edition, Wiley-Blackwell, 2006.
- Carr & Latham's technology of clothing manufacture - Carr, Harold, Latham, Barbara, Tyler, David J., 2008
- Mastering fashion buying and merchandising management by Tim Jackson and David Shaw, Palgrave Publishers, New York
- Merchandising of fashion products by Kincade, Dorris.H., Gibson, Fay.Y.,Pearson education publication
- Fashion- from Concept to Consumer, Frings, FringsGini Stephens, Pearson education, India
- Philip Kotler, “Marketing Management” 12th Edition, Prentice Hall Inc., 2007.

RESIDENTIAL INTERIOR DESIGNING AND EVENT MANAGEMENT

(PRACTICAL)

Course Code: HS020401

Teaching hours: 10 hrs /week

Credit: 4

CORE

Learning outcomes:

- To study the techniques and strategies required to plan successful event management.
- To understand the knowledge and competencies required to promote, implement and conduct various events
- To appreciate the aesthetic elements involved in the art process
- To become aware of ergonomics in work effectiveness and efficiency.
- To be efficient in planning interiors

Course outline

Module 1: Event management and Renewable energy resource

Organise an event/ exhibition/ self- employment training programme- using management steps- Planning, organizing, controlling and evaluation using

or

Undergo a ten day training programme in an event management institution. Visit to a renewable energy resource centre of solar energy/ waste management/rain water harvesting.

Module 2: Colour and furnishings

Colour harmonies - application in interiors, study on recent trends using pictures. Study on home furnishings. Collection of sample home furnishing materials.

Module 3: Dias Decoration for special occasions and flower rangement

Dias decoration for different occasions –any three (photographs) and evaluation. Flower arrangement- any four. (Photograph or illustration).

Module 4: Residential Space Planning and survey

Study layout of any one residence: layout (floor plans), Furniture layout and accessories and suggest modification. Photographic evaluation of interiors.

Or

Survey – plan and conduct a survey indistinct role of ergonomics in domestic work efficiency.

Module 5 : Wealth from waste

Create any two art object from waste material- (Functional/ decorative)

Recommended References:

- Advertising Management. Rathor, B.S. 2001, Himalaya Publishing House, Mumbai.
- Event Management a profession approach, AshutoshChaturvedi.
- Event Management an integrated and practical approach , Razaq Raj, Paul Walters and Tahir Rashid
- Event Management by Lynn Van Der Wagen and Bronda R Carlos. Tata McGraw
- Hill ñ New Delhi 1991.
- Marketing, Karthiresan and Radha 2004. Prasanna Publishers, Chennai.
- Successful Event Management, Anton Shone and Bry Parry.
- Kasu, A (2005) Interior design, Ashis Book Centre, Mumbai
- Khanna G, Art of Interior Design, Indica Publishers, Delhi
- PratapRao M (2001) Interior Design Principles and Practice, Standard Publishers and Distributors, N. Delhi.

ADVERTISING AND PUBLIC RELATIONS

Course Code: HS810401

Teaching hours: 90 hours

Credit: 4

ELECTIV

Objectives

- To create awareness of the need for advertising
- To enhance public relation skill and to create awareness regarding significance of public relations in the modern world
- To improve employee relationships

Course Outline

Module 1: Advertising

18 hours

Elements of Advertising, Advertising Strategy, Intro to Advertising Design & Graphics, Introduction to Advertising Design & Graphics, Advertising Campaigns, Law of Mass Communication; Advertising - importance advantages and disadvantages.

Module 2: Public Relations & Production of Publication

20 hours

History and growth of Public relations, Principles of Public Relations Definitions, importance, four basic elements, misconceptions, Public opinion, Public relation as management function, scope of Public relations Preparing reference material for publication, editing-fundamentals and techniques, production of cover, cover design and illustration, typography and press, proof reading and block making, paper.

Module 3: Principles Objectives of Public Relations

18 hours

Advertising, media of public relations advertising: newspapers, magazines. Radio and television, direct advertising, outdoor and transport advertising, motion pictures and special advertising, advertising themes.

Module 4: Employee Relations

20 hours

Personal Policy-Basis of good employee relations, communicating policies and practices to Employees: Responsibility for employee relations, importance and deficiencies of employee

Communications; Planning employee communications, communication from management to Employees and employees to management; Role of incentives and increments in employee relations

Module 5: Community Relations

14 hours

Benefits, Community relations survey, media of communication with community. Advertising, publicity, open house, plant tours, public speaking, exhibits, displays, annual reports

Recommended References:

- Applied public relation and communication-K.R. Balan
- Public relations-Principles, cases and problems-Fraizer Moore and Frank B Kalupa
- Broadcast/Video Studies journal
- Journal of Broadcasting & Electronic Media
- Communication Technology and New Media journals
- Health Communication journals
- Journal of Health Communication
- Public Relations/Advertising journals

INDIAN FABRIC EMBELLISHMENT TECHNIQUES AND QUALITY CONTROL IN GARMENT INDUSTRIES

Course Code: HS810402

Total hours : 90 hours

Credit: 4

ELECTIVE

Learning outcomes

- To study the different traditional textiles and their origin.
- To impart knowledge on various Indian Fabric embellishment techniques
- To gain knowledge about different dyeing and printing techniques .

Course Outline

Module 1: Introduction to traditional textiles 20 hours

History of Indian textile production; Techniques of textile decoration. Brief study on traditional woven fabric, Dyed fabric, printed fabrics embroidered fabric.traditional Indian embroidery and origin, common motif and colours used- Kantha,Chikan,Kutch and Mirror work, Kasuty, Zardosi and Bead work

Module 2: Printing, Painting and weaving. 14 Hours

Techniques, origin and application – block printing,Kalamkari and Patachitra. Dyeing and weaving techniques-Ikats, Patola, Bhandini, Laharia, Shibori.

Module 3: Quality system 18 hours

Introduction to key aspects of quality system, TQM, Role of ISO in quality assurance. Quality control-principles, quality department, quality audit, monitor, quality circles, quality operation of quality control system, design, standard, levels of standard.

Module 4: Introduction to Apparel testing and quality control 20 hours

Apparel testing equipment-GSM, Tensile Tester, Bursting strength tester, Tear strength tester, fabric stiffness tester,crock meter, colour matching cabinet. Quality parameters (defects found in yarns,printing, bleaching, shearing, mercerization) components of quality parameters-(placket,collar,pocket, vent ,label attachment).

Module 5: Important terminologies in Quality Control**18 hours**

C.M.T, Defect, Minor Defect, Major Defect, AQL, 4 point system, G.S.M, Shrinkage, Colour breeding, Breaking Strength, Puckering, Pilling,, Pilling resistance Grain seam, Batching up, Colour smear, Patches.

Recommended References

- Quality assurance for Textile and Apparel, Sara J. Kadolf, Fairchild publication.
- Introduction to clothing manufacture, Gerry Cooklin, Blackwell science.
- Quality control in apparel manufacturing, Dr Bharadraj.
- Traditional Indian Textile, John Gillow/Nocholas Barnard, Thames & Hudson

BUSINESS ORGANIZATION AND ACCOUNTANCY

Course Code: HS810402

Total hours: 90 hours

ELECTIV

Credit: 3

Learning Outcomes

- To understand the aspects of business organization
- To gain the knowledge of the various sources of finance

Course outline

Module 1: Scope of business and forms of Business organization 14 hours

Objectives of modern business, essentials of successful business. Sole proprietorship, partnership, joint stock company. State enterprises co-operative societies.

Module 2: Sources of finance and cost and cost control 20 hours

Importance of finance- sources of long term and short term finance. Kinds of shares and Debentures and ploughing back of profit. Methods of controlling cost. Types of cost, cost sheet.. Preparation of final account , preparation of trading account, profit and loss account, balance sheet.

Module 3: Cost accounting/ analysis, marketing 18 hours

Product cost analysis- record to be maintained- report and trend analysis; Marketing strategies- sales analysis- market promotion; computer aided record maintenance.

Module 4: Small scale industry 18 hours

Need for management, problems of small enterprises Government policy towards small business, development scheme registration of industrial estates-objective- advantages.

Module 5: Launching and organizing Small scale venture 20 hours

Small scale industries- Definition, types, procedure for setting small scale unit, training facilities for small unit, problems of new small scale unit, institutional support system; incentives and facilities.

Recommended References

- Bhattacharya, S. K Accounting for Management, Vikas Publishing House Pvt.Ltd. New Delhi (2003)
- S.P Aroara, Business Organization, Vikas Publishing House Pvt.Ltd. New Delhi (2000)
- Sherlekar S. A, Principles of Business Management, Himalaya Publishing House, New Delhi(2009)
- Shukla M.C, Business Organization, Sulchand and Co.New Delhi(2000)

WOMEN STUDIES

Course Code: HS820401

Total hours: 90 hours

Credit: 4

Learning Outcomes

- To create an awareness among the students about the status of women in India.
- To familiarize with the issues and problems of women
- To motivate students to work for the betterment of women

Course Outline

Module 1: Introduction

14 hours

The Concept and Significance of Women's Studies; Scope of Women's Studies, Women's Studies as an academic discipline; Women's Movements- Pre independent, Post independent and Current women movements; Need for empowerment of women. Status of women in India: Demographic profile of women with reference to health, education, employment, social and political aspects, Gender bias; The Indian girl child. The changing role of women

Module 2: Special Issues and Problems

20 hours

Infanticide, Foeticide, Dowry, Domestic violence, Sexual harassment and abuse, Child Marriage, Portrayal of women in mass media. Women in distress: Single, Widowed, and Divorced women, Unmarried mothers. Maternal and reproductive health issues

Module 3: Women in workforce

18 hours

Concept of work- productive and non-productive work, Use value and market value, Women in organized and unorganized sectors, Special problems and needs; Gender division of work, Micro enterprises and women entrepreneurship development; NGOs and women development, Globalization and impact on women's employment; Role of SHGs

Module 4: Women and Law**20 hours**

Indian constitution and provisions relating to women, Need for legal literacy, Laws pertaining to Marriage, Divorce, Dowry, Succession/Property rights, Sexual abuse, Immoral Traffic, and Abortion, Indecent Representation of Women Act 1986, Family courts, Enforcement machinery – Police and Judiciary. Human Rights as Women's Rights

Module 5: Developmental Programmes for Women**18 hours**

Services for protection, care and rehabilitation, Poverty alleviation and economic empowerment, Nutrition and health care programmes, Education and legal literacy. National and State Commissions for women

Recommended References

- Ashok S. Kolaskaer and Motilal Dash (2012), *Women and Society; The road to change*; Oxford University press.
- Charu Gupta (2012), *Gendering Colonial India, Reforms, Print, Caste and Communalism*, Orient blackswan
- Mary E. John ed.(2008), *Women's Studies in India: A Reader*, New Delhi: Penguin Books India.

GERONTOLOGY AND CARE OF THE ELDERLY

Course Code: HS820402

ELECTIV

Total hours: 90 hours

Credit: 4

Learning Outcomes

- To make the students aware of the issues facing the elderly in India.
- To know the theoretical frame work in the study of ageing.
- To impart necessary skills for making effective interventions for care of elderly.

Course Outline

Module 1: Introduction

20 hours

Concept of Gerontology: Demographic Trends in Ageing in India with special reference to Kerala. Ageing Process: Physical, Psychological, Social, Economic and Spiritual aspects of ageing.

Module 2: Issues and Challenges of Ageing with special reference to India.

18 hours

Economic dependence/ Poverty, Elderly in Rural/ Urban areas, Abuse, Neglect, Abandonment, Physical health and Sensory problems, Lack of civic amenities- transportation, housing, recreation, Crimes against elderly, Retirement and related issues, Death and Bereavement.

Module 3: Dementia and related disorders in Elderly

14 hours

Prevalence in India, Risk factors, Signs and Symptoms, Awareness, Programmes, Support for the care givers, Intervention Strategies

Module 4: Families and Living Arrangements of elderly with special reference to India -

20hours

Institutional care, day care centres, retirement communities, living alone, living with other family members, home nursing (hiring in- home caregivers), and respite care. Services and Programmes for the Aged- Categories of services: Housing, health, leisure time activities; institution for the aged; day care centres; economic programmes; Re- engagement(after retirement); Retirement

pension, death cum retirement gratuity, provident fund, health measures. Insurance scheme, investement and taxation and property.

Module 5: Governmental and Nongovernmental support for elderly in India 18 hours

National Old Age Pension Scheme (NOAPS) -1995, National Policy for Older Pensions- 1999, Non- governmental agencies working in favour of the aged- Help age India, Legislations in support of elderly: Maintenance of Parents and Senior Citizen Act 2007.

References

- Bali, P A(2001). Care of the Elderly in India: changing configuration, Indian institute of advanced study, Shimla.
- Bhai, L. T (2002). Ageing an Indian Perspective, decent books Pub, New Delhi
- Hill R. D (2008). Strategies for positive ageing, W W Norton and Company, New York
- Moody H. R (2010). Ageing: Concepts and Controversies 6th edition, Sage publication, London.
- www.gerontologyindia.com
- Journal of geriatric psychiatry and neurology.

LANDSCAPING AND FLORICULTURE

Course Code: HS820403

ELECTIVE

Total hours: 90 hours

Credit:3

Learning outcomes

- To enable students to gain knowledge on landscape gardening and its appropriate application
- To acquire skills in cultivation of different garden plants.
- To instill entrepreneurial skill in floriculture and nursery management

Course Outline

Module 1: Landscape gardening

20 hours

Meaning and importance of landscaping, principles of landscape gardening, components of landscape design, Principles of external space organization. Styles in landscape gardening - layout of formal, informal and small, medium, large gardens. English, Italian, French, Persian, Mughal and Japanese garden, Garden components: Garden pavements, borders, hedges, edges, trophy, topiary and garden adornments Lawns: Importance of lawn, methods of lawn making, maintenance and care, type of lawn grasses.

Module 2 : Modern trends in gardening

18 hours

Indoor gardening – Identification and selection of indoor plants, care and maintenance, display and placement ; Bonsai – styles, identification of suitable plants, containers, techniques - pruning, nipping and wiring ; Terrarium/ bottle garden/ dish garden, Terrace gardening – Designing, selection of plants, water proofing and checking the strength of terrace slab, Kitchen gardening - Design, types of vegetables grown ; Water garden and rockery

Module 3: Ornamental plants**14 hours**

Herbs – annuals and biennials, flower beds, ground covers; Shrubs – flowering and foliage, climbers, creepers, perennials – bulbs, tubers, ferns, succulents, cacti, ornamental grass, bamboo and palm; Trees – arboriculture, importance and value of trees, selection, planting, maintenance and care, role of trees in landscaping.

Module 4 : Commercial Floriculture**18 hours**

Importance, scope and significance, perfume industry, flower pigments, aromatherapy, flower trade, cut flowers, post-harvest treatment and packaging of cut flowers, Floriculture promotion and extension: Floriculture for income generation: Orchid, Anthurium, Jasmine and rose gardening, value addition in floriculture. Preservation techniques – Dry and fresh flowers and leaves. Role of agri-horticulture societies, KVKS, Krishi Bhavan, horti crop, flower shows – exhibitions

Module 5 : Soil Preparation and Plant Propagation**20 hours**

Garden tools and implements; Soil preparation : soil types, soil treatment, organic manures and fertilizers; Irrigation - methods and routine duties in a garden; Plant propagation – Types of Propagation - Seed propagation, vegetative propagation/asexual propagation – layering, cutting, grafting, budding; Micro propagation – tissue culturing; Care of plants – potting - repotting techniques, pruning, disbudding, defoliation, staking and mulching. Green house –components, types, care and maintenance.

Recommended References

- Aquaa George, Teaxt Book of Horticulture,
- Arora, J.S , Introductory Ornamental Horticulture
- Hunter MK and Hunter E.H , Indoor Garden Design
- Manibhushan Rao, Teaxt Book of Horticulture, Macmillan India Ltd., New Delhi
- Singh J Basic Horticulture
- Swarup, V. 1997, Ornamental Horticulture, Macmilan India Ltd., Chennai

MODEL QUESTION PAPER

Course Code: HS020101

ENVIRONMENT AND HUMAN RESOURCE MANAGEMENT

Time: 3 hrs

Max. weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. State the meaning of sustainability
2. List out any four the qualities of a leader.
3. What is resource accountability
4. Define biomass
5. What is vermicomposting
6. Who is a leader?
7. Differentiate renewable and non-renewable energy.
8. Short note on teleconferencing.
9. Expand TQM
10. What is the importance of motivation (8x1 = 8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Discuss on waste recycling methods.
12. Explain the advantages of solar energy.
13. Explain about water pollution,
14. Elaborate the effect of land pollution on climate change.
15. Explain any two methods of waste disposal.
16. What do you understand by rainwater harvesting?
17. Write a brief about photovoltaic cell.
18. Explain the process of planning (6x2= 12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5.

19. Systems approach –advantages and limitations.

20. Environmental impact on the extensive use of non-renewable energy resource?
21. Write an essay on different methods of disposal.
22. Explain the different Henri Fayol's principles of management.

(2x5 = 10 wt)

Course Code: HS020102

CLINICAL NUTRITION AND DIETETICS

Time: 3 hrs

Max. weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. What is Ascites?
2. List out the symptoms of Tuberculosis.
3. What are the causes of peptic ulcer?
4. Enlist the effect of drugs on digestion of nutrients.
5. Comment on the role of dietitian.
6. Give the classification of burns.
7. Write a note on etiology of urinary calculi.
8. Differentiate between parenteral and enteral feeding.
9. Write a short note on hyperlipidemia.
10. Give a short note on metabolic changes in fever.

(8x1 = 8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Briefly explain on the dietary treatment of acute and chronic glomerulonephritis.
12. What are the causes and symptoms of Refeeding syndrome?
13. Elucidate on dietary management of dialysis.
14. Describe the mechanism of food allergy.
15. Elaborate on medical nutrition therapy for AIDS.

16. Explain about the dietary management of IBS and ulcerative colitis.
17. Shortly explain on the etiology and symptoms of Cholelithiasis.
18. Briefly explain about routine hospital diets.

(6x32= 12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5.

19. Elaborate the effect of nutrients on the absorption and metabolism of drugs.
20. Explain the symptoms, diagnosis and dietary management of diabetes mellitus.
21. Discuss on agents responsible for liver damage and damages caused to liver. Shortly explain on the dietary treatment of infective hepatitis.
22. Detail about the etiology, symptoms and dietary management of Hypertension.

(2x5 = 10 wt)

Course Code: HS020103

PATTERN MAKING AND GRADING

Time: 3 hours

Maximum Weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. Define pattern making.
2. Define grading?
3. List the types of pockets
4. Give the standards of good fit.
5. Steps in preparing a blouse for fitting.
6. Explain the drafting of circular sleeve.
7. Give the classification of collar.
8. Define pattern alteration.
9. Explain set-in-sleeve.
10. Write on the yoke supporting fullness

(8x1=8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Explain types of grading.
12. Briefly explain the conversion of plain sleeve to puff sleeve.
13. Explain the drafting of Magyar sleeve.
14. Explain patch pocket and bound pocket.
15. Briefly explain scalloped and turtle neck collar.
16. Discuss about yoke with fullness.
17. Enumerate the principles of pattern alteration.
18. Briefly explain fitting techniques (6x2=12wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5

19. Explain method of developing pattern by draping.
20. Discuss in detail about the sleeve combined with bodice.
21. Explain any 4 types of skirts.
22. Explain any three fitting problems in blouse and suggest remedies (2x5=10wt)

Course Code: HS020104

EARLY CHILDHOOD EDUCATION

Time: 3 hrs

Max. weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. State the objectives of ECE
2. List out the qualities of a good ECCE teacher
3. What is theme-based teaching?

4. List down the objectives of ICCW
5. Differentiate long term and short term planning
6. What is meant by School Readiness Curriculum?
7. Contributions of Krishnamurthy to ECE
8. List out the play equipments needed for outdoor activities in a preschool.
9. Suggest some methods of imparting environmental awareness among preschool children.
10. Expand UNICEF and write about its functions. (8x1 = 8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Write on the contributions of Gandhiji and Tagore to ECE
12. Explain about the various types of preschool and their functions
13. List out the important registers to be kept in a pre-school and state its purpose
14. Describe the importance of play in Early Childhood Education.
15. Bring out the contributions of ICDS in ECCE
16. What is the importance of celebrating national days in a pre-school
17. Differentiate Montessori schools from Kindergarten
18. Explain activity based learning in early years with suitable examples. (6x2=12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5.

19. Select any two methods that help in effective transaction of Pre-school curriculum and justify.
20. Briefly explain the Contribution of national agencies and programmes to ECCE
21. Write an essay on pre-school organisation.
22. Explain the different curriculum approaches in childhood education. (2x5 = 10 wt)

Course Code: HS020201

FUNDAMENTALS OF HOUSING AND INTERIOR SPACE DESIGN

Time: 3 hrs

Max. weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. Define ergonomics.
2. What are two type of privacy
3. Short note on orientation
4. What is soft furnishing
5. Define functionality
6. Write about thermal comfort.
7. Write about any two building material
8. Define Geriatric housing.
9. What is related colour harmony
10. Define concept of vastusastra.

(8x1= 8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Brief on the importance of lighting in commercial interiors.
12. What is the false ceiling materials commonly used?
13. How will you acquire privacy within residential areas?
14. Explain importance of body posture for different activities.
15. Describe about need storage space in a kitchen
16. Describe about different techniques for low-cost building construction.
17. Discuss about accessories.
18. Write a brief about building supportive services

(6x2= 12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5.

19. Vastu Shastra- principle and practice
20. Explain about social cultural and economic issues in housing
21. What are the principles of planning interiors?
22. Explain major components of a house. (2x5 = 10 wt)

Course code: HS020202

PUBLIC HEALTH NUTRITION

Time: 3 hours

Max. weights: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. What are objectives of nutrition education?
2. Describe the scope and content of public health nutrition.
3. Brief on dimensions of health.
4. What is meaning of health care?
5. Bring out the importance of food fortification.
6. Write on UNESCO.
7. What are the objectives of ICDS?
8. Comment on dual burden of malnutrition in India.
9. Elucidate on symptoms of fluorosis.
10. Explain the significance about dietary diversification.

(8x1=8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Write on prevalence and symptoms of IDD.
12. What is PEM? How can it be prevented?

13. Write on NNP & NIN.
14. What are the socio economic factors affecting the health?
15. Discuss on any 3 mass media for nutrition education.
16. Explain on levels of health care.
17. Explain on prevention and treatment of obesity.
18. Elaborate on community health indicators.

(6x2=12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5.

19. Define health. Explain the factors affecting health.
20. Discuss on etiology, prevalence, symptoms and treatment of vitamin A deficiency.
21. Explain the nutrition security at national and individual level.
22. Discuss on any six mass media for nutrition education.

(2x5=10 wt)

Course Code: HS020203

RESEARCH METHODS AND STATISTICS

Time: 3 hrs

Max. weight:30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. Define intervening variables
2. What are partition values? Give the different partition values
3. Define a standard normal distribution
4. What is standard error?
5. What is a scatter diagram?
6. Brief on ex-post facto research.
7. Write on the types of questionnaires?
8. What is sampling error?

9. Mention the sources of research problem
10. What are the types of hypotheses? (8x1 = 8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Distinguish between absolute and relative measures of dispersion
12. Briefly explain the types of research
13. Differentiate between interview and observation
14. Explain the advantages and limitations of questionnaires as a research tool.
15. Calculate the correlation coefficient from the following data sheet:
 $N X = 444$ $N Y = 443$ $N X^2 = 19806$ $N Y^2 = 20065$ $N XY = 19711$ $n = 10$
16. Define variables and discuss the types of variables
17. What are the properties of normal distribution?
18. Write a note on plagiarism. (6x2 = 12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5

19. The following values refer to the birth and death rates of 8 communities. On the basis of the data, can we conclude that death rate is related to birth rate? Justify.
Birth rate: 20 12 10 16 15 8 8 11
Death rate: 16 6 7 12 10 5 5 9
20. Define sample. Briefly explain different types of sampling.
21. Define a research design. Explain the steps in a research design
22. Discuss briefly on any two tools used in research (2x5 = 10 wt)

Course Code: HS020204

EARLY INTERVENTION FOR INFANTS AND EXCEPTIONAL CHILDREN

Time: 3 hrs

Max. weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.

Each question carries a weightage of 1

1. What is meant by developmental delay?
2. List out the causes for visual impairment
3. Write a short note on DASII
4. Differentiate dyslexia and dysgraphia
5. List out the risk factors leading to developmental delay.
6. What is Autism Spectrum Disorder
7. Define Early intervention
8. What is occupational therapy?
9. Expand TDSC
10. What is the importance of stimulating the senses? (8x1 = 8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.

Each question carries a weightage of 2

11. Explain the Ten Commandments in Assessment.
12. State the characteristics of socially and emotionally backward children.
13. Explain Amiel-Tison Passive Angles Method of assessment.
14. How toys act as a source of stimulation and learning?
15. Classify mentally challenged children and explain their identification.
16. Write a note on occupational therapy
17. Write on the characteristics of ADHD children and their educational provisions.
18. Explain the assessment of Visual impairment in early infancy

(6x2= 12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5.

19. Classify exceptional children. Write on the characteristics, educational provisions and intervention for gifted children.
20. Define early stimulation. What is the importance of stimulating the senses and explain how it is done.
21. Explain the characteristics, causes, educational strategies and intervention for children with learning disabilities.
22. Describe any four tools that can be used effectively in Developmental Assessment

(2x5 = 10 wt)

Course Code: HS020301

HOUSEKEEPING

Time: 3 hrs

Max. weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. What is C form
2. Short notes on housekeeping
3. What is staffing.
4. Write note on check in
5. What is communication
6. Brief about first- aid
7. Describe landscaping.
8. List out any four qualities of a front office staff
9. Expand IWM

10. What is the concept of interior design.

(8x1 = 8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. List out qualities of front office staff

12. What are the processes of stain removal?

13. Explain front desk log.

14. Elaborate about the importance of man power.

15. Describe condemnation and re-use function.

16. Brief about safety aspects in hospitality industry.

17. What are the functions of front office?

18. Briefly explain different types of window treatment.

(6x2= 12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5.

19. Explain the functions of housekeeping department.

20. Illustrate and explain about types of flower arrangement

21. What are the different types of window treatment, illustrate.

22. Explain the hierarchical job description.

(2x5 = 10 wt)

Course Code: HS020302
FOOD SERVICE MANAGEMENT

Time: 3 hrs

Max. weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. Explain the scope of food service institutions in the tourism department.
2. Comment on Theme restaurants.
3. Give the importance of napkin folding.
4. Differentiate centralized and decentralized system.
5. Define standard recipe.
6. List down the different types of food service equipments.
7. Explain about leadership style.
8. Write a note on welfare catering.
9. What are the different types of table setting?
10. Give a note on layout of kitchens. (8x1= 8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Classify the different types of food service institutions.
12. Differentiate Table d' hote and cyclic menu.
13. What are the factors involved in purchasing of equipments?
14. Comment on the types of cuisines.
15. Write a note on portion control and portioning equipments.
16. Elucidate the methods of food purchasing
17. Discuss on budget and benchmarking.
18. Explain the significance of order of use of equipments. (6x2= 12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5.

19. Write in detail about the tangible tools in a food service industry.
20. Discuss in detail about the food service equipments.
21. Elaborate on distribution system in a food service unit.
22. Briefly explain on planning and setting up of an industrial canteen. (2x5 = 10 wt)

Course Code: HS020303

TEXTILE TESTING AND ECO-FRIENDLY TEXTILES

Time: 3 hours

Max.weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. Give the objectives of textile testing
2. Explain maturity ratio
3. Define drapability.
4. Explain abrasion resistance.
5. Explain enzyme wash.
6. Define nanotechnology.
7. Discuss on Indian Ban.
8. Give the classification of natural dyes.
9. Explain Yarn twist.
10. What are eco-labels?

(8x1=8wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Briefly discuss on yarn count.
12. Write on determination of fabric weight.
13. Explain cover factor.
14. Write short note on fabric shrinkage.
15. Describe the measurement of fabric stiffness.
16. Give the advantages and drawbacks of natural dyes.

17. What are smart fabrics?
18. Explain the colourfastness properties of fabrics. (6x2=12wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5

19. Explain the selection of sample for testing?
20. Explain the tests carried out to study pilling and absorbency of a fabric.
21. Briefly discuss on eco-regulations.
22. Briefly discuss on test for evaluating bursting strength of a fabric. (2x5=10wt)

Course Code: HS020304

ENTREPRENEURSHIP DEVELOPMENT

Time: 3 hrs

Max. weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. Define SWOT analysis.
2. Short note on ISO certification and standards.
3. What is staffing.
4. Write note on DIC
5. Brief about first- aid
6. Describe landscaping.
7. Describe the importance of marketing
8. Define the concept of entrepreneurship
9. Describe 'Annapurna Scheme'
10. What is advertising? (8x1 = 8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.

Each question carries a weightage of 2

11. Write about the problems of SSI.
12. What are the processes of stain removal?
13. Briefly explain the different types of design organization.
14. What are the common challenges faced by a women entrepreneur
15. Differentiate between costing and pricing.
16. Describe about EDP and its objectives.
17. Write about role of an entrepreneur for the development of the society.
18. What are the essentials of successful business? (6x2= 12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5.

19. How can you start a mall venture, explain with an example.
20. Explain about the essential record keeping system for an entrepreneur.
21. What are the State wise support institutional system for an entrepreneur
22. Current status of women entrepreneur in India. Explain with example (2x5 = 10 wt)

Course Code: HS800401

DEVELOPMENTAL PSYCHOLOGY AND COUNSELLING SKILLS

Time: 3 hrs

Max. weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. What are the types of memory?
2. Differentiate Guidance and counselling.
3. Write a short note REBT.
4. List out any two branches of applied psychology and explain.
5. What is reflective thinking?
6. Name and explain any two intelligence tests.

7. State the importance of crisis intervention counselling
8. What are the different types of forgetting?
9. What is the scope of psychology?
10. Write a short note on vocational guidance? (8x1 = 8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Write on the significance of Freud's Psychoanalytic Therapy.
12. What are the different types of Counselling? Enumerate the qualities and skills of a good counsellor.
13. Describe the steps in problem solving.
14. Briefly discuss on the functions and types of guidance
15. Explain the theory of multiple intelligence
16. What is the importance of Academic school counselling in the current scenario?
17. Write a brief note on Ebbinghaus's curve of forgetting
18. Describe the types of memory. (6x2= 12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5.

19. Define memory. Discuss on the different memory enhancing techniques.
20. Explain the innovative approaches in counselling process.
21. Explain the salient features of the Cognitive Behaviour Therapy.
22. Define thinking and reasoning. Describe the different types of thinking and reasoning. (2x5 = 10 wt)

Course Code: HS800402

FOOD MICROBIOLOGY AND FOOD SAFETY

Time: 3 hours

Max.weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. What is food microbiology?
2. Describe the role of codex alimentarius in maintaining standards of foods.
3. Differentiate between quality control and quality assurance.
4. Brief on aseptic packaging for preservation.
5. Bring out the importance of the microorganism in food biotechnology.
6. What are the objectives of food preservation?
7. Explain on single cell protein.
8. Write a note on traditional Indian fermented foods.
9. Explain about contamination of bread.
10. Comment on manothermosonication. (8x1=8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Write on sources of food contamination.
12. What are GM Foods and its advantages?
13. Write on bureau of Indian standards.
14. What are the causes and symptoms of botulism?
15. Write a note on microorganism involved in spoilage of meat and fish.
16. Discuss on common food borne bacteria and molds.
17. Explain on role of FSSAI in food safety?
18. Comment on High-Pressure Processing Pulsed Electric Fields. (6x2=12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5

19. Define preservation. Explain the different methods of preservation.
20. Explain the principles and importance of HACCP.
21. Explain on physical, chemical and biological hazards affecting food safety.
22. Discuss the parameters affecting microbial growth. (2x5=10 wt)

Course Code: HS800403

GARMENT PRODUCTION TECHNOLOGY AND FASHION MARKETING

Time: 3 hours

Maximum Weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. Give the structure of garment industry.
2. Explain the role of purchasing department.
3. Define marketing.
4. Write on channels of distribution.
5. Define merchandising.
6. Briefly discuss 4 p's of marketing.
7. Give the importance of marker.
8. Explain the methods of laying pattern.
9. Explain fashion cycle.
10. What is visual merchandising? (8x1=8wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Explain the principles of management.
12. Discuss about finishing department.
13. Explain the yardage control in cutting room.
14. Write on publicity.
15. Give the functions of marketing.
16. Explain the methods of costing.

17. Explain the role of merchandiser.

18. Discuss on methods of costing in apparel industry.

(6x2=12wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5

19. Give the functions of design department and finance department.

20. Explain different types of cutting machines.

21. Explain about the pricing policies and strategies.

22. Discuss on branding and brand image.

(2x5=10wt)

Course Code: HS810401

ADVERTISING AND PUBLIC RELATIONS

Time: 3 hours

Max.weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. Explain oral communication.

2. What is open house?

3. Write on Public Opinion.

4. Who is a consumer?

5. What is advertising?

6. Comment on Brochure.

7. What is leaflet?

8. What is public relation

9. Comment on Mass media.

10. Define public speaking.

(8x1=8wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Explain corporate advertisement.
12. Describe the importance of advertising.
13. What are the leadership qualities?
14. Write down the basic elements of public relations.
15. Describe the importance of advertising.
16. List out the responsibilities of a public relation officer.
17. What is the importance of public relations?
18. Discuss on law of mass communication (6x2=12wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5

19. Explain the different media used for public relation advertising.
20. Explain the importance of employee employer relation.
21. Role of public explain about the elements of public relation.
22. Explain the procedure in production of publication. (2x5=10wt)

Course Code: HS810402

**INDIAN FABRIC EMBELLISHMENT TECHNIQUES AND QUALITY CONTROL IN
GARMENT INDUSTRIES**

Time: 3 hrs

Max. weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. What is patola?
2. Short notes on Block printing
3. What is Plackets?
4. Write note on Kasuti?
5. What is chickenkari?
6. Brief about any four embroidery stitches

7. Describe Bead work
8. Explain Laharia.
9. Write on Shibori
10. What is AQL? (8x1=8wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Write meaning and principles of quality control?
12. Explain about types of collars?
13. Brief on functions of quality assurance department?
14. Explain about painting techniques?
15. What are the objectives of quality system?
16. Write role of ISO in quality assurance.
17. Explain about dyeing and dyeing techniques.
18. Describe the traditional woven textiles of India? (6x2=12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5.

19. Explain and illustrate traditional Indian embroidery
20. Explain Apparel testing equipment
21. Write about quality parameters.
22. Define weaving. What are basic weaves? (2x5=10 wt)

Course Code: HS810403

BUSINESS ORGANIZATION AND ACCOUNTANCY

Time: 3 hours

Max.weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. Define the term cash book.
2. Distinguish between Trading account and Profit & Loss account

3. What are the methods of controlling cost?
4. Write a short note on finance sources.
5. What are the objectives of modern business?
6. Give the significance of middleman in trade
7. Short note on the importance of small scale industries.
8. Define balance sheet.
9. List out the records to be maintained for cost analysis.
10. What are the sources of long term and short term finance? (8x1=8wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Discuss the role of steps involved in project appraisal for a food processing industry.
12. What are the different kinds of shares and debentures?
13. Briefly explain the principles of Accounting.
14. Give the importance of cost sheet in business management.
15. What is the role of co-operative societies in current business scenario?
16. Discuss the importance of advertisement in marketing.
17. Explain the Government policies towards small business.
18. Explain the procedure for setting small scale unit. (6x2=12wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5

19. Briefly explain the essentials of a successful business and the important documents required to a start a company.
20. Explain the steps in preparation of Final Account.
21. Discuss the role of banks in a business.

22. Write an essay of distribution channel .

(2x5=10wt)

Course Code: HS820401
WOMEN STUDIES

Time: 3 hours

Max.weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. Define infanticide.
2. Describe the scope of women empowerment.
3. What is globalisation?
4. Comment on 'gender bias'
5. Write short note on NGO
6. What is domestic violence?
7. Define concept of empowerment
8. List out the rights of women.
9. Write a short note on foeticide.
10. Mention any four Nutrition and Health care programmes for women (8x1=8wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Highlight the role of media in protecting woman.
12. Describe the importance of advertising.
13. Critically evaluate the post independent era.
14. Write short note on need for empowerment of women.
15. Discuss about problems of single woman.
16. Enumerate the consequences of child marriage.
17. Comment on the need for woman employment.
18. Explain the role of SHG's in women empowerment. (6x2=12wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5

19. Explain the role of SHGs for the betterment society
20. Discuss the role of mother in socialization of child.
21. Write an essay on 'portrayal of women in media'.
22. Explain about any three women development programme. (2x5=10wt)

Course Code: HS820402

GERONTOLOGY AND CARE OF THE ELDERLY

Time: 3 hrs

Max: 30 Weight

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. List the sensory problems of the elderly.
2. Importance of providing recreational facilities for the elderly.
3. List the Governmental programmes for the benefit of the elderly.
4. Write one law protecting the elderly
5. The need for institutional care for elderly
6. Psychological aspects of ageing.
7. What are the issues faced by elderly living alone?
8. Expand NOAPS
9. List out some Insurance schemes for elderly
10. Write a short note on awareness programme for dementia. (8x1 = 8 wt)

Part B

Answer any **SIX** questions, not exceeding three pages.
Each question carries a weightage of 2

11. Explain any one theory on the ageing process?
12. Discuss the problems faced by elderly in terms of transportation and public amenities?
13. Explain the counselling services available for elderly in your community?
14. Discuss the issues facing elderly in terms of housing?

15. Explain the National Old age Pension scheme.
16. Explain the need for services for caregivers of elderly suffering from dementia and related disorders?
17. Bring out the issues facing elderly in terms of economic empowerment?
18. What are the common issues related with retirement faced by elderly?

(6x2 = 12 wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5

19. Explain the major issues and challenges of elderly.
20. Describe the different aspects of ageing.
21. Discuss on the signs and symptoms and intervention strategies for dementia.
22. Explain the governmental and non-governmental support provided for elderly in India.

(2x5 = 10 wt)

Course Code: HS820403

LANDSCAPING AND FLORICULTURE

Time: 3 hours

Maximum Weight: 30

Part A

Answer any **EIGHT** questions, not exceeding one page each.
Each question carries a weightage of 1

1. What is 'bonsai'?
2. Define the term landscape.
3. What do you mean by indoor gardening?
4. Short note on grafting.
5. What is green house?
6. What do you mean by floriculture?
7. Describe about any two types of garden
8. List out the types of plant propagation
9. Write on the role of trees in landscaping.
10. What are the advantages of terrace gardening?

(8x1=8wt)

Part B

Answer any **SIX** questions, not exceeding three pages.

Each question carries a weightage of 2

11. What are the principles of land scape gardening?
12. Discuss on the care and maintenance of indoor plants.
13. What are the components of landscape design?
14. What are the points to be considered while preparing flower bed?
15. Briefly explain about aromatherapy.
16. Write the advantages of kitchen gardening.
17. Describe about KVKS.
18. Explain any two styles of landscape gardening. (6x2=12wt)

Part C

Answer any **TWO** questions,
Each question carries a weightage of 5

19. Write an essay on plant propagation techniques.
20. Explain about plant preservation techniques.
21. Explain about the pricing policies and strategies.
22. Discuss about greenhouse, its components care and maintenance. (2x5=10wt)