

**COURSE CURRICULUM AND SYLLABI FOR FOUR YEAR
UNDERGRADUATE DEGREE PROGRAMME IN
HOME SCIENCE**

B.Sc. (Hons) Home Science

As per

IV DEANS COMMITTEE REPORT

COLLEGE OF HOME SCIENCE,
MARATHWADA AGRICULTURAL UNIVERSITY
PARBHANI 431 402 (M.S.) INDIA

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COURSE LAYOUT

B.Sc. (Hons) Home Science

To be implemented

From Academic year 2007-08

As per

IV DEANS COMMITTEE REPORT

Approved by Academic Council

(No. 69) conducted on 19/7/2007

Finalized by DICC on 04/08/2007

B.Sc.(Hons) Home Science Degree Programme

1) Credit Distribution

Sr. No.	Description of course	Credits
1	Common Courses	20
2	Core Courses	60
3	Professional Electives	80
3(a)	Major Courses	50
3(b)	Supporting Courses	10
3(c)	Implant Training	20
	TOTAL	160

- Note:** 1) The student of B.Sc.(Hons)Home Science has to complete common courses of 20 credits and core courses of 60 credits in the first two years (four semesters) of the degree programme.
- 2) The student completing first two years of degree programme will opt for any one professional elective of 60 credits (50 credits of major courses + 10 credits of supporting courses) and implant training of 20 credits in respective discipline.
- 3) Thus the student will have to complete total courses for 160 credits which will be considered for calculation of CGPA.

2) DISCIPLINE WISE DISTRIBUTION OF COURSES

A) COMMON COURSES

Course No.	Semester	Title of the Course	Credits
LANG 111	I	Comprehension & Communication Skills in English	1+1=2
BIOCHEM 111	I	Introductory Biochemistry	2+1=3
EXT 121	II	Women in Agriculture	2+1=3
ENV 121	II	Environmental Studies	2+1=3
AGECON 231	III	Marketing Management	2+1=3
COMP 231	III	Computer Applications	1+2=3
STAT -241	IV	Elementary Statistics	2+1=3
		TOTAL	12+8=20

B) CORE COURSES

Foods and Nutrition

Course No.	Semester	Title of the Course	Credits
FSN 111	I	Elements of Food science	2+1=3
FSN 122	II	Introduction to Human Nutrition	2+1=3
FSN 233	III	Normal and Therapeutic Nutrition	2+1=3
FSN-244	IV	Food preservation and Storage	1+2=3
		Total	7+5=12

Human Development and Family Studies

Course No.	Semester	Title of the Course	Credits
HDFS 111	I	Life Span Development	2+1=3
HDFS 122	II	Early Childhood Development, Care & Education	2+1=3
HDFS 233	III	Children with Developmental Challenges	2+1=3
HDFS 244	IV	Dynamics of Marriage & Family	2+1=3
		Total	8+4=12

Family Resource Management

Course No.	Semester	Title of the Course	Credits
FRM 111	I	Management of Family Resources	2+0=2
FRM 122	II	Family Economics	1+1=2
FRM 123	II	Consumer Education	1+1=2
FRM 234	III	Housing and space Management	1+2=3
FRM 245	IV	Fundamentals of Art & Design	1+2=3
		Total	6+6=12

Clothing and Textiles

Course No.	Semester	Title of the Course	Credits
TAD 111	I	Fundamentals of clothing construction	1+2=3
TAD 122	II	Textile Science & Care	2+1=3
TAD 233	III	Apparel Designing & Construction	1+2=3
TAD 244	IV	Fundamentals of Textile Designing	2+1=3
		Total	6+6=12

Home Science Extension and Communication Management

Course No.	Semester	Title of the Course	Credits
HECM 111	I	Home Science Extension & Rural Development	2+1=3
HECM 122	II	Communication & Instructional Technology	1+2=3
HECM 233	III	Diffusion and Adoption of Home Stead Technology	2+1=3
HECM 244	IV	Programme Development	1+2=3
		Total	6+6=12

Note: The student of B.Sc.(Hons)Home Science has to complete common courses of 20 credits and core courses of 60 credits in the first two years (four semesters) of the degree programme.

C) Professional Electives

Nutrition and Dietetics

Course No.	Semester	Title of the Course	Credits
FSN ND 351	V	Food Science	2+1=3
FSN ND 352	V	Food Analysis	1+2=3
FSN ND 353	V	Food Standards & Quality Control	2+1=3
FSN ND 354	V	Diet Therapy	2+1=3
FSN ND 355	V	Nutrition for Special groups	3+0=3
*HE IT CM 353	V	Training & Human Resource Development	1+3=4
FSN ND 361	VI	Advanced Human Nutrition	3+0=3
FSN ND 362	VI	Food Services in Institution	2+1=3
FSN ND 363	VI	Community Nutrition	1+2=3
FSN ND 364	VI	Dietary Counseling	0+4=4
FSN ND 365	VI	Bakery & Confectionary	1+3=4
*FRM ID 361	VI	Interior Designing & Decoration	1+2=3
FSN ND 471	VII	Clinical Nutrition	2+1=3
FSN ND 472	VII	Catering Management	1+3=4
FSN ND 473	VII	Traditional Indian Food Products	0+3=3
FSN ND 474	VII	Product Development	1+3=4
FSN ND 475	VII	Entrepreneurship Development	1+3=4
*HDFS MEC 472	VII	Family & Child Welfare	2+1=3
	VIII	Implant Training	0+20=20
		Total	26+54=80

* supporting courses

Organization & Management of Early Childhood Programmes

Course No.	Semester	Title of the Course	Credits
HDFS MEC 351	V	Developmental assessment of young children	2+2 = 4
HDFS MEC 352	V	Family counseling	2+2 = 4
HDFS MEC 353	V	Readiness material for Children	1+3 = 4
HDFS MEC 354	V	Organisation and Management of Dramatic & Rhythmic Activities for Children	0+4 = 4
*FRM ID 352	V	Space designing –I (Residential)	1+2 = 3
HDFS-MEC 361	VI	Creative Experiences for Children	2+2 = 4
HDFS-MEC 362	VI	Organisation and Management of ECCD Programmes.	2+3 = 5
HDFS-MEC 363	VI	Literature for Young Children	1+3 = 4
HDFS-MEC 364	VI	Intervention Programme for Developmentally Challenged Children	1+3 = 4
*FSN –ND-363	VI	Community Nutrition	1+2 = 3
HDFS-MEC 471	VII	Entrepreneurship in Child Care Services	2+4 = 6
HDFS-MEC 472	VII	Family & Child Welfare	2+1=3
HDFS-MEC 473	VII	Developing Play Material for Children	1+3 = 4
HDFS-MEC 474	VII	Infant Stimulation Programmes	1+3 = 4
*HE IT CM 472	VII	Digital Advertising	1+3 = 4
	VIII	Implant Training	0+20 = 20
		Total	20+60 = 80

* supporting courses

Interior and Exterior Space Designing

Course No.	Semester	Title of the Course	Credits
FRM ID 351	V	Space Designing-I (Residential)	1+2 = 3
FRM ID 352	V	Furniture Design & Arrangement	1+2 = 3
FRM ID 353	V	Accessories for Interior Enrichment	0+3 = 3
FRM ID 354	V	Flower Arrangements	1+3 = 4
FRM ID 355	V	Drawings in Interior	1+2 = 3
*TAD TD 351	V	Traditional Indian Textiles	2+1 = 3
FRM ID 361	VI	Interior Designing & Decoration	1+2 = 3
FRM ID 362	VI	Floor & Floor Treatments	1+1 = 2
FRM ID 363	VI	Space Designing II (Commercial)	0+3 = 3
FRM ID 364	VI	CAD Fundamentals	0+3 = 3
FRM ID 365	VI	Functional Interiors for Special Needs	2+1 = 3
FRM ID 366	VI	Traditional & Contemporary Interiors	3+0 = 3
*TAD TD 365	VI	Designing Through Dyeing & Printing	1+2 = 3
FRM ID 471	VII	Walls & Window treatment	1+3 = 4
FRM ID 472	VII	CAD in Interiors	0+4 = 4
FRM ID 473	VII	Fittings & Fixtures	1+2 = 3
FRM ID 474	VII	Entrepreneurship Development in Interior Design	1+3 = 4
FRM ID 475	VII	Landscape Designing	1+1 = 2
*HE IT CM 471	VII	Photo Journalism	1+3 = 4
	VIII	Implant Training	0+20 = 20
		Total	19 + 61 = 80

* supporting courses

Textile Designing

Course No.	Semester	Title of the Course	Credits
TAD TD 351	V	Traditional Indian textiles	2+1
TAD TD 352	V	Computer Aided designing I	0+4
TAD TD 353	V	Principles of Designing Application	1+3
TAD TD 354	V	Traditional Costumes of India	2+1
TAD TD 355	V	Textile Finishing	2+1
*HE ITCM 353	V	Training and Human Resource Development	1+3
TAD TD 361	VI	Retailing and Merchandising Textiles and Apparels	2+1
TAD TD 362	VI	Computer Aided Designing – II	0+3
TAD TD 363	VI	Fabric Embellishment-I	0+4
TAD TD 364	VI	Knitting Technology-I	1+3
TAD TD 365	VI	Designing Through Dyeing & Printing	1+2
*FRM ID 362	VI	Floor & Floor Treatment	1+1
TAD TD 471	VII	Computer Aided Designing- Customization	0+3
TAD TD 472	VII	Structural Fabric Design	2+2
TAD TD 473	VII	Knitting Technology-II	0+3
TAD TD 474	VII	Project Work	0+3
TAD TD 475	VII	Textile Industry Management	2+1
*FRM ID 471	VII	Walls & Window Treatment	1+3
	VIII	Implant Training	0+20 = 20
		Total	18 + 62 = 80

* supporting courses

Information Technology

Course No.	Semester	Title of the Course	Credits
HE ITCM 351	V	Print Journalism	2+2 = 4
HE IT CM 352	V	Mass Communication	1+3 = 4
HE IT CM 353	V	Training and Human Resource Development	1+3 = 4
HE IT CM 354	V	Instructional Video Production	1+3 = 4
*FRM ID 354	V	Flower Arrangement	1+3 = 4
HE IT CM 361	VI	Electronic Journalism	1+3 = 4
HE IT CM 362	VI	Multimedia Production	1+3 = 4
HE IT CM 363	VI	Public Relation & Social Marketing	1+3 = 4
HE IT CM 364	VI	Audio Video Recording & Editing	0+2 = 2
*FSN-ND -363	VI	Community Nutrition	1+2 = 3
*TAD TD 365	VI	Designing Through Dyeing & Printing	1+2 = 3
HE IT CM 471	VII	Photo Journalism	1+3 = 4
HE IT CM 472	VII	Digital Advertising	1+3 = 4
HE ITCM 473	VII	Project Management	1+3 = 4
HE IT CM 474	VII	Entrepreneurship Development	1+3 = 4
HE IT CM 475	VII	Designing Information Material	1+3 = 4
	VIII	Implant Training	0+20 = 20
		Total	16 + 64 = 80

* supporting courses

Note: The student completing first two years of degree programme will opt for any one professional elective of 60 credits (50 credits of major courses + 10 credits of supporting courses) and implant training of 20 credits in respective discipline.

3. SEMESTER WISE COURSES

Semester- I

Course No.	Course Title	Credits
LANG 111	Comprehension & Communication Skills in English	1+1
BIOCHEM 111	Introductory Biochemistry	2+1
FSN 111	Elements of Food science	2+1
FRM 111	Management of Family Resources	2+0
TAD 111	Fundamentals of clothing construction	1+2
HECM 111	Home Science Extension & Rural Development	2+1
HDFS 111	Life Span Development	2+1
	Total	12+7 = 19
MZOO 111	Introductory Zoology	1+1(NC)
PHY EDU 111	Physical Education	0+1(NC)

Semester – II

Course No.	Course Title	Credits
EXT 121	Women in Agriculture	2+1
FSN 122	Introduction to Human Nutrition	2+1
HDFS 122	Early Childhood Development, Care & Education	2+1
TAD 122	Textile Science & Care	2+1
FRM 122	Family Economics	1+1
FRM 123	Consumer Education	1+1
HECM 122	Communication & Instructional Technology	1+2
ENV 121	Environmental Studies	2+1
	Total	13+9 = 22
MCHE 122	Organic & Inorganic Chemistry	1+1(NC)
NSS 111	NSS	0+1(NC)

Semester - III

Course No.	Course Title	Credits
AGECON 231	Marketing Management	2+1
COMP 231	Computer Applications	1+2
FSN 233	Normal and Therapeutic Nutrition	2+1
FRM 234	Housing and space Management	1+2
HDFS 233	Children with Developmental Challenges	2+1
HECM 233	Diffusion and Adoption of Home Stead Technology	2+1
TAD 233	Apparel Designing & Construction	1+2
	Total	11+10 = 21
MBOT 231	Botany	1+1(NC)

Semester - IV

Course No.	Course Title	Credits
STAT –241	Elementary Statistics	2+1
FSN-244	Food preservation and Storage	1+2
FRM – 245	Fundamentals of Art & Design	1+2
TAD –244	Fundamentals of Textile Designing	2+1
HDFS 244	Dynamics of Marriage & Family	2+1
HECM –244	Programme Development	1+2
	Total	9+9 = 18
MPHY –241	Physics	1+1(NC)

Semester- V

Foods and Nutrition -Nutrition & Dietetics

Course No.	Course Title	Credits
FSN ND 351	Food Science	2+1
FSN ND 352	Food Analysis	1+2
FSN ND 353	Food Standards & Quality Control	2+1
FSN ND 354	Diet Therapy	2+1
FSN ND 355	Nutrition for Special groups	3+0
*HE IT CM 353	Training & Human Resource Development	1+3
	Total	11+8=19

Human Development and Family Studies – Organization & Management of Early Childhood Programmes

Course No.	Course Title	Credits
HDFS MEC 351	Developmental assessment of young children	2+2
HDFS MEC 352	Family counseling	2+2
HDFS MEC 353	Readiness material for Children	1+3
HDFS MEC 354	Organisation and Management of Dramatic & Rhythmic Activities for Children	0+4
*FRM ID 352	Space designing –I (Residential)	1+2
	Total	6+13=19

Family Resource Management - Interior and Exterior Space Designing

Course No.	Course Title	Credits
FRM ID 351	Space Designing-I (Residential)	1+2
FRM ID 352	Furniture Design & Arrangement	1+2
FRM ID 353	Accessories for Interior Enrichment	0+3
FRM ID 354	Flower Arrangements	1+3
FRM ID 355	Drawings in Interior	1+2
*TAD TD 351	Traditional Indian Textiles	2+1
	Total	6+13=19

Clothing &Textiles - Textile Designing

Course No.	Course Title	Credits
TAD TD 351	Traditional Indian textiles	2+1
TAD TD 352	Computer Aided designing I	0+4
TAD TD 353	Principles of Designing Application	1+3
TAD TD 354	Traditional Costumes of India	2+1
TAD TD 355	Textile Finishing	2+1
*HE ITCM 353	Training and Human Resource Development	1+3
	Total	8+13

Home Science Extension and Communication Management - Information Technology

Course No.	Course Title	Credits
HE ITCM 351	Print Journalism	2+2
HE IT CM 352	Mass Communication	1+3
HE IT CM 353	Training and Human Resource Development	1+3
HE IT CM 354	Instructional Video Production	1+3
*FRM ID 354	Flower Arrangement	1+3
	Total	6+14=20

Semester- VI

Foods and Nutrition-Nutrition & Dietetics

Course No.	Course Title	Credits
FSN ND 361	Advanced Human Nutrition	3+0
FSN ND 362	Food Services in Institution	2+1
FSN ND 363	Community Nutrition	1+2
FSN ND 364	Dietary Counseling	0+4
FSN ND 365	Bakery & Confectionary	1+3
*FRM ID 361	Interior Designing & Decoration	1+2
	Total	8+12=20

**Human Development and Family Studies– Organization & Management of
Early Childhood Programmes**

Course No.	Course Title	Credits
HDFS-MEC 361	Creative Experiences for Children	2+2
HDFS-MEC 362	Organisation and Management of ECCD Programmes.	2+3
HDFS-MEC 363	Literature for Young Children	1+3
HDFS-MEC 364	Intervention Programme for Developmentally Challenged Children	1+3
*FSN –ND-363	Community Nutrition	1+2
	Total	7+13=20

Family Resource Management- Interior and Exterior Space Designing

Course No.	Course Title	Credits
FRM ID 361	Interior Designing & Decoration	1+2
FRM ID 362	Floor & Floor Treatments	1+1
FRM ID 363	Space Designing II (Commercial)	0+3
FRM ID 364	CAD Fundamentals	0+3
FRM ID 365	Functional Interiors for Special Needs	2+1
FRM ID 366	Traditional & Contemporary Interiors	3+0
*TAD TD 365	Designing Through Dyeing & Printing	1+2
	Total	8+12=20

Clothing & Textiles- Textile Designing

Course No.	Course Title	Credits
TAD TD 361	Retailing and Merchandising Textiles and Apparels	2+1
TAD TD 362	Computer Aided Designing – II	0+3
TAD TD 363	Fabric Embellishment-I	0+4
TAD TD 364	Knitting Technology-I	1+3
TAD TD 365	Designing Through Dyeing & Printing	1+2
*FRM ID 362	Floor & Floor Treatment	1+1
	Total	5+14=19

Home Science Extension and Communication Management- Information Technology

Course No.	Course Title	Credits
HE IT CM 361	Electronic Journalism	1+3
HE IT CM 362	Multimedia Production	1+3
HE IT CM 363	Public Relation & Social Marketing	1+3
HE IT CM 364	Audio Video Recording & Editing	0+2
*FSN-ND -363	Community Nutrition	1+2
*TAD TD 365	Designing Through Dyeing & Printing	1+2
	Total	5+15=20

Semester – VII

Foods and Nutrition-Nutrition & Dietetics

Course No.	Course Title	Credits
FSN ND 471	Clinical Nutrition	2+1
FSN ND 472	Catering Management	1+3
FSN ND 473	Traditional Indian Food Products	0+3
FSN ND 474	Product Development	1+3
FSN ND 475	Entrepreneurship Development	1+3
*HDFS MEC 472	Family & Child Welfare	2+1
	Total	7+14=21

Human Development and Family Studies– Organization & Management of Early Childhood Programmes

Course No.	Course Title	Credits
HDFS-MEC 471	Entrepreneurship in Child Care Services	2+4
HDFS-MEC 472	Family & Child Welfare	2+1
HDFS-MEC 473	Developing Play Material for Children	1+3
HDFS-MEC 474	Infant Stimulation Programmes	1+3
*HE IT CM 472	Digital Advertising	1+3
	Total	7+14=21

Family Resource Management- Interior and Exterior Space Designing

Course No.	Course Title	Credits
FRM ID 471	Walls & Window treatment	1+3
FRM ID 472	CAD in Interiors	0+4
FRM ID 473	Fittings & Fixtures	1+2
FRM ID 474	Entrepreneurship Development in Interior Design	1+3
FRM ID 475	Landscape Designing	1+1
*HE IT CM 471	Photo Journalism	1+3
	Total	5+16=21

Clothing & Textiles- Textile Designing

Course No.	Course Title	Credits
TAD TD 471	Computer Aided Designing- Customization	0+3
TAD TD 472	Structural Fabric Design	2+2
TAD TD 473	Knitting Technology-II	0+3
TAD TD 474	Project Work	0+3
TAD TD 475	Textile Industry Management	2+1
*FRM ID 471	Walls & Window Treatment	1+3
	Total	5+15=20

Home Science Extension and Communication Management- Information Technology

Course No.	Course Title	Credits
HE IT CM 471	Photo Journalism	1+3
HE IT CM 472	Digital Advertising	1+3
HE ITCM 473	Project Management	1+3
HE IT CM 474	Entrepreneurship Development	1+3
HE IT CM 475	Designing Information Material	1+3
	Total	5+15 = 20

Semester- VIII (Respective Disciplines)

Course No.	Course Title	Credits
	Implant Training	0+20

4) SYLLABUS FOR COMMON COURSES

4.1 LANG 111 Comprehension & Communication skills in English

2(1+1)

Theory

Descriptive writing, Reading comprehension – short answer question, choice of best alternative, vocabulary exercises - word groups, word forms, synonyms and antonyms, words and phrases, derivation of verbs from nouns, derivation of noun from verbs, derivation, of adjectives from verbs, comprehension tests, true or false, compound words, often confused words, homonyms and homophones, auxiliaries – model auxiliaries.

Practical

Applied Grammar : articles, prepositions, verbs, tenses, voice, direct indirect speech, agreement of verb with subject, relative pronouns and relative adverbs, simple, compound and complex sentences, infinitives, clauses, word order, gerunds use of for and since, sentence patterns.

Listening comprehension : listening to lectures, speeches, talks.

Spoken English : Importance to stress and intonation.

Assignments on written skills : Letter writing, precis writing, paragraph writing, brief essay writing.

Text : Current English for Language Skills by M.L. Tickoo and A.E. Subramanian, Publisher Macmillan Indian Limited.

The Book of Nature : Jawaharlal Nahru, 2. A Day's wait : Earnest Hemingway, 3. I was Gandhi's Jailer : Patrick Quinn, 4. Too Dear : Leo Tolstoy, 5. My Greatest Olympic Prize : Jesse Owens, 6 and 7. Fighting for the Invisible I and II : Navin Sullivan, 8. My Struggle for an Education : Booker T. Washington, 9. Hari : Nayantara Sahgal, 10. My Lost Dollar : Stephen Leacock.

4.2 BIO CHEM 111 Introductory Biochemistry

3(2+1)

Theory

Introduction- definition, historical development and relevance of biochemistry course for U.G. students of different faculties of agriculture. Water-pH, buffer and cell constituents. Classification, structure and functions of carbohydrates, lipids, protein and amino acids. Enzymes – nature, classification, functions, mechanism of enzyme action and factors affecting enzyme activity, coenzyme and cofactor. Metabolic Pathways – Glycolysis, TCA cycle, HMP shunt, degradation of starch, fatty acids and acyl glycerol. Biosynthesis Pathways – Photosynthesis, nitrogen fixation, fatty acid and glycogen formation. Nucleic acid – nitrogenous bases, nucleotides, DNA and RNA structure and protein synthesis. Role of vitamins and minerals in metabolism. Brief orientation to biochemical energetic and biological oxidation. Secondary metabolites – structure and functions.

Practical

Preparation of standards, buffers and colloidal solutions. Determination of PH. Qualitative tests of carbohydrates and amino acids. Quantitative estimation of soluble sugars. Demonstration of estimation of nitrogen by Kjeldhal method and fat by Soxhlet method. Determination of acid value, saponification value and iodine number. Demonstration on paper chromatography and thin layer chromatography. Demonstration of peroxidase and ascorbate peroxidase activity.

4.3 EXT 121 Women in Agriculture

3 (2+1)

Theory

Status of rural women – demographic, social political legal and entitlement of property, sex ratio, nutrition, health, education, Feminization of agriculture and its influence on status of farm women. Gender issues in agriculture, multiple role of farmwomen. Occupational health hazards, drudgery involved. Technological needs of farm women, technologies available, its transfer. Status of women in the rural families, family type, characteristic. Changing pattern of rural family. Empowerment of women – concept, need and ways of empowering women.

Practical

Introduction of women friendly technologies i.e. cotton picking coat, improved sickle. Study of women Self Help group. Visit to enterprises set by Women SHGS. Study of women empowerment programmes i.e. NATP, AICRP

4.4 ENV 121 Environmental Studies

3 (2+1)

Theory

The Multidisciplinary nature of environment studies: Definition, scope and importance, need for public awareness. Natural Resources: Renewable and non-renewable resources: Natural resources and associated problems- Forest Resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people. Water Resources: Use over utilization of surface and groundwater, floods, drought, conflicts over water, dams-benefits and problems. Mineral Resources: Use and exploitation, environmental effects of existing and using mineral resources, case studies. Food Resources: World food problems, changes caused by agriculture and overgrazing effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies. Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies. Land resources: Land as resources, land degradation, man induced landslides, soil erosion and desertification - Role of individual in conservation of natural resources, Equitable use of resources for sustainable lifestyle. Ecosystems: Concept of ecosystem, Structure and function of an ecosystem, Producers consumers and decomposers, Energy flow in the ecosystem, Ecological succession, Food chains, food webs and ecological pyramids, Introductions, types, characteristics features, structure and function of the following ecosystem- Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries). Biodiversity and its conservation: Introduction- Definition: genetic, species and ecosystem diversity, Biogeographical classification of India, Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values, Biodiversity at global, national and local levels, India as mega diversity nation, Hot - spots of biodiversity; Threats of biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts, Endangered and endemic species of India, Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. Environmental Pollution: Definition, Causes, effects and control measures of Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear hazards. Solid waste Management- Causes, effects and control measures of urban and industrial wastes, Role of an individual in prevention of pollution, Pollution case studies, and Disaster management: floods, earthquake, cyclone and landslides. Social Issue and the Environment: From Unsustainable to Sustainable development. Urban problems related to energy. Water conservation, rain water harvesting, watershed management. Resettlement and rehabilitation of people: its problems and concerns, Case studies. Environmental ethics: Issues and possible solutions. Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, Case studies. Wasteland reclamation. Consumerism and waste products. Environment Protection Act. Air (Prevention and Control of Pollution) Act. Water (Prevention and Control of Pollution) Act. Wildlife Protection Act Forest Conservation Act. Issues involved in enforcement of environmental legislation. Public awareness. Human Population and the Environment: Population growth, variation among nations. Population explosion- Family Welfare Programme. Environment and human health. Human Rights. Value Education. HIV/AIDS. Women and Child Welfare. Role of information Technology in Environment and human health. Case studies.

Practical

Visit to a local area to document environmental assets-river/forest/ grassland / hill / mountain. Visit to local polluted site – Urban / Rural / Industrial / Agricultural. Study of common plants, insects, and birds. Study of simple ecosystems-pond, river, hills slopes, etc. (Fieldwork equal to 5 Lecture hours). Case studies under different units.

4.5 AG ECON 231 Marketing Management

3(2+1)

Theory

Meaning, significance and importance of markets and marketing. Marketing mix and marketing environment. Marketing Research. Buyer behavior - motives and factors influencing. Demand and sales forecasting. Pricing policies and pricing decisions. Product planning – meaning, product concept and dimension, produce policy. Sales management - Sales promotion mix, prerequisites of selling, after sales service, Features of salesmanship, types of salesmen, Entrepreneurship - Meaning and importance, Types and characteristics, Role of entrepreneurial development and relevant acts.

Practical

Study of different markets. Identification of channels of distribution. Study of sales/product promotion techniques. Comparative study on packaging material and packaging techniques. Market survey for learning product related strategies-branding, trade name, warranty and guarantee, Critical analysis of advertisement. Preparation of advertisement. Learning to plan advertisement budget.

4.6 COMP 231 Computer Application

3(1+2)

Theory

Introduction to programming, program definition, program life cycle, principles and techniques characteristics of a good program, data handling, introduction to flow charts. Spread Sheet Package - worksheet basic, data entry of numbers, text and formula, moving data in a worksheet, selecting data range, using the interface (Toolbars, Menus), editing basics, working with work books; saving and quitting, cell referencing. Formatting and Calculations. Calculations and worksheets using Auto Fill, working with formula, efficient data display with data formatting (number formatting, data formatting etc.), working with ranges, worksheet printing. Working with graphs and charts - Adding/Formatting text data with auto format; creating embedded chart using chart wizard, sizing and moving parts, updating charts, changing charts types, creating separate chart sheets, adding title, legends and gridlines, printing chart. Concepts of Data Base Management System - databases defined, relational databases defined, data structure; elements, fields, records, record layout; data codes – alphabetic, alphanumeric, numeric. Window Based DBMS Package – introduction, creating databases, adding records, viewing database, positioning database, saving database, editing; deleting records, files, ; modifying data base structure, opening and closing database file sorting and indexing, querying reports. DBMS programming of small application.

Practical

Flow Charts, Worksheet Basics, Formatting and Calculations, Working with Graphs and Charts, Concepts of Data Base Management, Creating Data Bases, Viewing Data Bases, Saving Data Bases, Modifying Data Base Structure, Sorting and Indexing, Querying reports, Small Applications.

4.7 STAT 241 Elementary Statistics

3(2+1)

Theory

Review of Central Tendency. Review of Dispersion. Karl Pearson's Correlation Coefficient. Simple Linear Regression. Test of Significance - Null Hypothesis and Alternative Hypothesis, Two types of Errors, Level of Significance, Critical Region, Degrees of Freedom. Standard Normal Deviate Test for Single Mean and difference between two Means. Students t-test for single mean and difference between two means. Paired t-test, Chi-square test for goodness of fit and independence of attributes in 2x2 contingency table, Yate's Correction (No mathematical derivatives).

Practical

Computation of A.M., Median and Mode for raw data and frequency distribution. Computation of S.D. and C.V. for raw data and frequency distribution. Computation of simple correlation coefficient. Estimation of Regression lines. S.N.D. test for single mean and difference between two means, t-test for single mean, t-test

for difference of two means, Paired t-test. Test of significance of Correlation and Regression Coefficients. Chi-square test for goodness of fit and independence of attributes in 2x2 contingency table.

5. DISCIPLINE WISE SYLLABUS

5.1 DEPARTMENT OF FOODS AND NUTRITION

A) CORE COURSES

5.1.1 FSN 111 Elements of Food Science

3 (2+1)

Theory

Functions of Foods. Food groups and the nutrients contributed by each group to the diet, nutritive value of cereals, pulses, dairy products, meat, fish, poultry, vegetables, fruits, fats and oils, sugar and Jaggery, spices and condiments. Food processing methods- soaking, sprouting, grinding, cutting, fermentation, cooking methods/ types , merits and demerits. Use of Hay box, Solar cooker, and Pressure cooker, Microwave ovens.

Practical

Weighing and measuring of food items- flours, cereals and cereal products, pulses and dals, sugar, oils and other liquid foods. Preparation of recipes using cereals and pulses, Preparation of recipes using fruits. Preparation of recipes using vegetables. Preparation of recipes using fish, egg and meat. Preparation of beverages. Preparation of milk based products. Market survey on raw and processed food available and their cost.

5.1.2 FSN 122 Introduction to Human Nutrition

3 (2+1)

Theory

Relation of food Nutrition and Health. Definitions of terms used in nutrition. Brief history of nutrition. Concept of recommended dietary allowances; recommended allowances for specific nutrients and energy. Concept of balanced diet, basic food groups – characteristics and their contribution to the diet. Digestion and absorption of carbohydrates, fats and proteins. Importance of water in nutrition. classification, functions, sources, requirement, deficiency and toxicity of fat soluble- and water-soluble vitamins. Minerals-classification, functions, sources, requirements, deficiency and toxicity of calcium, phosphorus, iodine, fluorine, iron, sodium, potassium, chloride, copper and zinc;

Practical

Serving size and number of servings of common dishes. Planning of nutrient rich dishes - protein, calcium, iron, vitamin A, thiamin, riboflavin, and ascorbic acid. Calculate cost of dishes prepared for above nutrients. Planning of low cost nutritious recipes. Study of common deficiency diseases through audio-visual aids.

5.1.3 FSN 233 Normal and Therapeutic Nutrition

3 (2+1)

Theory

Importance of meal planning and factors to be considered while planning meals. Maternal nutrition-physiological changes and nutritional requirements during pregnancy and lactation. Infancy- nutritional requirement, importance of breast feeding, weaning and supplementary foods. Pre-school, school age child and adolescent- food habits and nutritional requirements. Old age - changes during old age and nutritional requirement. Importance and modification of normal diet to therapeutic diets. Methods of feeding (normal and artificial). Causes, symptoms and dietary management in following disorders - acute and chronic fevers; gastrointestinal disorders; diarrhea, constipation; liver diseases: hepatitis; cardiovascular diseases; atherosclerosis and hypertension; diabetes; problems of weight control; overweight and obesity.

Practical

Planning of balanced diet for different age groups - infancy, preschool age, school age, adolescent, adult, old age. Planning of diets for special conditions - pregnancy and lactation. Diets during following disorders- typhoid, diarrhea, constipation, hepatitis, hypertension, diabetes, and overweight/obesity.

5.1.4 FSN 244 Food Preservation and Storage**3 (1+2)****Theory**

Importance and scope of food preservation and storage. Food spoilage- causes and effects. Selection and purchase of foods for preservation. Principles and methods of food preservation - drying and dehydration, use of high temperature, use of low temperature, foods as preservatives, use of chemicals, radiation, combination of above methods. Storage of common perishable, semi perishable and non-perishable foods. Food standards and quality control. Packaging and packing material, labeling and costing of the product.

Practical

Market survey of raw and preserved foods. Drying of fruits and vegetables (blanched & UN-blanched) – Solar drying, Sun drying, oven drying. Domestic preservation of foods by freezing. Preparation and storage of the following - squashes and syrups, cordials, jam, jellies, marmalades, preserves and murabbas, ketchup, sauces, chutneys, pickles with and without oil. Preparation of items utilizing cereals and legume flour and their storage. Preparation of sugar candies. Demonstration on canning and bottling of fruits and vegetables. Demonstration on storage of food grains. Visit to a dairy plant. Visit to a preservation centre.

B) PROFESSIONAL ELECTIVES -Nutrition and Dietetics**5.1.5 FSN-ND 351 Food Science****3 (2+1)****Theory**

Cereals and millets-structure, composition, processing technique, effect of heat and acid, functions of starch in cookery. Legumes, nuts and oilseeds - composition, processing technique, effect of heat, acid and alkali. Fruits and vegetables – types, composition, pigments changes caused by heat and acid and alkali. Egg- structure, composition, grading of egg. function and changes during cooking. Meat Poultry and Fish- kind structure, composition, pigments, factors affecting tenderness, post mortem changes and changes during cooking. Sugars--types, composition, manufacturing process, effect of heat and acid, functions in cookery. Fats and oils- kind, composition, effect of heat, functions in cookery, processing techniques, rancidity of fats. Introduction to food additives, sensory evaluation of food products.

Practical

Cereal Cookery- Preparations showing dextrinisation and gelatinization functions of starch in cereals. Gluten formation and factors affecting it. Vegetable Cookery- Effect of heat, acid and alkali on pigments. Milk and Milk products- Effect of heat, acid and alkali and enzymes also. Egg Cookery- Preparations showing functions of egg as binding, emulsifying agents and thickness, various ways of using eggs. Meat Cookery- Preparations involve in various methods of cooking. Sugars-Preparations showing function of sugar in cookery. Standardization and sensory evaluation of a recipe.

5.1.6 FSN-ND 352 Food analysis**3 (1+2)****Theory**

Importance and history of food analysis. Sample and sampling techniques. Physicochemical properties of foods. Principles and methods of estimation of different nutrients in foodstuffs.

Practical

Safety hints for biochemistry laboratory . Introduction of different types of glassware. Introduction and functions of equipments / Instruments . Preparation of glass and metal distilled water. Preparation of reagents and different normality and molarity solutions. Preparation of sample / standard / blank. Relative atomic weight / molecular weight / equivalent weight of the substances. Determination of Moisture content. Determination of Ash content. Determination of Fat content. Determination of Protein content. Determination of Iron content. Determination of Calcium content. Determination of Vitamin C content.

5.1.7 FSN ND 353 Food Standards and Quality Control

3 (2+1)

Theory

Importance of quality control and assurance; food laws and regulations; Sampling procedure. Application of food standards and their specifications for raw foods and food products for its constituents and additives. Various methods for the assessment of quality of different foods, selection of sensory panel and sensory evaluation of food products, grading and marking standards, specification of finished products, food toxins, food poisoning, identification of preventive measures, food adulteration - assessment and prevention.

Practical

Examination of agriculture, horticulture and animal foods and food products in relation to different standards - PFA, FPO, Agmark, BIS, Codex alimentarius, HACCP. Visit to quality control laboratory and food processing industries. Market survey of processed foods for quality assurance; development of score cards and evaluation of different foods.

5.1.8 FSN ND 354 Diet therapy

3(2+1)

Theory

Importance and scope. Therapeutic adaptations of normal diet. Commercial preparations for therapeutic uses. Methods and problems of feeding patients. Etiology, symptoms and dietary management of overweight, under weight, fever, tuberculosis, cardiovascular, gastrointestinal, liver, renal disorders, diabetes, cancer, hyper and hypothyroidism

Practical

Planning of diets for different conditions - overweight, under weight, fever, tuberculosis, cardiovascular, gastrointestinal, liver, renal disorders, diabetes, cancer, hyper and hypothyroidism

5.1.9 FSN ND 355 Nutrition for Special Groups

3 (3+0)

Theory

An overview of groups with special nutritional needs. Relationship of nutrition with health of an individual with special needs. Current nutrition and health status of women and children in India. Nutritional management of vulnerable sections of the society – pregnant and lactating women, infants, preschoolers, adolescents and elderly. Dietary management of industrial workers, sports persons, astronauts and defense personnel.

5.1.10 FSN ND 361 Advanced Human Nutrition

3 (3+0)

Theory

Energy- units, sources and requirements, fuel value of foods, methods of measuring energy value of food, energy requirement of the body, physical activity and thermogenic effect of food; Body composition and basal metabolism. BMR - methods of measurement, factors affecting. Digestion and absorption of carbohydrates, fats and proteins. Carbohydrates - types, functions, sources, requirement, health conditions affected by carbohydrates, significance of dietary fiber and other nutritional aspects of carbohydrates. Lipids - types,

functions, sources, requirement, health problems associated with lipids. Proteins - types, functions, sources, requirement, quality evaluation, improvement and protein energy malnutrition. Vitamins - classification, functions, sources, requirement, deficiency and toxicity of the following: fat soluble- A, D, E, K; water soluble – C, B complex (thiamin, riboflavin, niacin, B₆, B₁₂ and folic acid). Minerals - classification, functions, sources, requirements, deficiency and toxicity of calcium, phosphorus, iodine, fluorine, iron, sodium, potassium, chloride, copper and zinc; bio availability and factors affecting calcium and iron, electrolyte balance. Water: Functions, sources, distribution in body and water balance.

5.1.11 FSN ND 362 Food Services in Institutions

3 (2+1)

Theory

Types of food service institutions. Styles of food services. Floor planning and layout. Principles, functions and tools of management. Personnel management – selection and training, desirable qualities, personnel appearance. Financial management – terms used, budgeting and account keeping. Selection, care and use of equipments. Food and personal hygiene. Types of menu and menu cards

Practical

Development of recipe book. Preparation of various types of menu cards. Table setting, maintenance of accounts and record keeping, visit to different food service institutions.

5.1.12 FSN ND 363 Community Nutrition

3 (1+2)

Theory

Malnutrition – definition and causes. Assessment of nutritional status. Major nutritional problems prevalent in India and the state. National nutrition programmes and policy. Role of national and international agencies in improving nutritional status of the community. Nutrition education.

Practical

Assessment of nutritional status of an individual / community using anthropometry and dietary survey. Visit to local health centers to identify clinical signs and symptoms of nutritional problems. Visit to an ICDS block. Development of audio visual aids. Planning, implementation and evaluation of nutrition education for a target group.

5.1.13 FSN ND 364 Dietary Counseling

4 (0+4)

Practical

Diet counseling - counseling process and its significance. Assessment of needs of patients. Establishing rapport. Communication process. Patient education. Case studies- selection of 2-3 patients, clinical, nutritional and biochemical profile, therapeutic modification of diets, report writing. Pre requisites and preparation for setting up a counseling center. Preparation of audio – visual aids for diet counseling. Organizing counseling camps for specific diseases like GIT disorders, renal disorders, liver diseases, cardio-vascular diseases, hormonal- metabolic disorders, protein energy malnutrition

5.1.14 FSN ND 365 Bakery and Confectionery

4 (1+3)

Theory

Selection, properties and functions of ingredients used in bakery and confectionery. Flours and flour mixtures- role of gluten and starch, dough's and batters, their rheological properties. Emulsifiers used in bakery. Balancing the formula for bakery products. Tools and techniques used in bakery. Quality control of bakery products.

Practical

Use of different bakery equipments. Balancing the formula for bakery products. Standard methods of making different types of biscuits, cookies, cakes, pastries, cream rolls, swiss rolls, bread, buns, pizzas, puddings, tarts.

Icings and cake decoration. Standard methods of making toffees and chocolates. Use of crystalline and non-crystalline sugars in different preparations.

5.1.15 FSN ND 471 Clinical Nutrition **3 (2+1)**

Theory

Pathogenesis of deficiency diseases. Etiology, prevalence, clinical signs and symptoms of common deficiency diseases. Etiology, metabolic changes, clinical manifestations, complications and dietary management of gastrointestinal disorders- vomiting, constipation, peptic ulcer, ulcerative colitis; liver disorders – hepatitis, cirrhosis, hepatic coma; weight management- underweight, overweight; diabetes mellitus; cardiovascular diseases - hypertension, atherosclerosis; renal disorders- nephritis, urinary calculi, renal failure.

Practical

Blood analysis- Haemoglobin, glucose & cholesterol. Urine analysis- glucose & creatinine.

5.1.16 FSN ND 472 Catering Management **4 (1+3)**

Theory

Role of manager in catering establishment. Large scale preparation . Standardization of recipes and portions. Menu planning for various catering institutions. Micro-planning of a proposed project to be undertaken for running a food service institution.

Practical

Quantity food production and cost calculation. Preparation and service of Hi teas/ lunches for special occasions and a formal lunch. Organization, management and administration in institutions such as canteen, cafeteria, nursery school/ hostel mess. Project work.

5.1.17 FSN ND 473 Traditional Indian Food Products **3 (0+3)**

Practical

Exploring and enlisting traditional recipes of different states of the country. Standardization of common recipes of North, East, South, West and Central zone of country. Preparation of meals of different state. Value addition of traditional recipes and meals. Nutrient composition of traditional v/s value added meals.

5.1.18 FSN ND 474 Product Development **4 (1+3)**

Theory

Importance and scope of product development. Selection and storage of raw material. Sensory evaluation and standardization. Packaging requirements of food products. Economics of products.

Practical

Market survey of available processed products in view of cost, label and quality assurance mark. Panel selection and training on sensory evaluation. Standardization of products- soups and beverages, chapaties, vegetables, snacks, continental dishes. Pricing, packaging, labeling and shelf life studies.

5.1.19 FSN ND 475 Entrepreneurship Development **4 (1+3)**

Theory

Concept, need and process of Entrepreneurship development. Government policies and schemes for Entrepreneurship development. Developing entrepreneurial competencies. Setting up an enterprise – enterprise selection, market analysis, SWOT analysis, resource mobilization, finance, technology, raw material, site and manpower. Identification of marketing strategies, packaging, quality control, advertisement, costing and taxation.

Practical

Visit to small-scale industries. Study of pertinent enterprises in detail. Interaction with successful entrepreneurs. Preparation of project proposal for funding by different agencies.

5.2 DEPARTMENT OF HUMAN DEVELOPMENT & FAMILY STUDIES

A) CORE COURSES

5.2.1 HDFS 111 Life Span Development

3 (2+1)

Theory

Biological basis of development; Pregnancy and birth; Physical, Cognitive and socio-emotional development during infancy, early childhood, middle childhood and adolescence; Stages of personal development during adulthood and aging; Marriage and family relationship during early, middle and late adulthood.

Practical

Study of physical, motor, social, emotional, intellectual, language, moral and personality development at different ages; Using available measurement tools, techniques and writing interpretative reports.

5.2.2 HDFS 122 Early Childhood Development Care and Education

3 (2+1)

Theory

Meaning, characteristics and significance of early childhood years. Physical and motor development, cognitive development, language development, socio-emotional development, moral development, personality development during early childhood years; Early childhood education-Significance of early childhood education; History of early childhood education and contribution of western and Indian educators in promoting early childhood education; Programme planning; Importance and types of play; Role and qualities of early childhood personnel; Parental involvement in early childhood education and care programmes

Practical

Observation and recording of physical and motor development, cognitive development, language development, socio-emotional development and personality development; Developing and conducting activities to promote all components of development i.e. physical, motor, cognitive, language, socio emotional and personality; Visit to early childhood education center and recording observation; Observation of a PTA meeting and its reporting

5.2.3 HDFS 233 Children with Developmental Challenges

3 (2+1)

Theory

Definition and classification of children with developmental challenges. Current prevalence, its implications on the quality of life of the population. Multidisciplinary views of children with developmental challenges. Types of developmental challenges – mental deficiency, sensory disabilities, neurological disorders, physical handicaps, definition, classification, etiological factors, characteristics, educational and vocational intervention for different disabilities.

Practical

Study of etiology, characteristics, diagnosis of children with different disabilities and recording information; Conducting individual home based intervention; Collaborating with professionals in conducting center based intervention activities for children with developmental challenges - schools, clinics, pediatric wards, special schools and writing reports.

5.2.4 HDFFS 244 Dynamics of Marriage and Family

3 (2+1)

Theory

Marriage – understanding the institution of marriage ; Readiness for marriage; Meaning , definition, purpose, motives, functions and types of marriage; Marriage in different Indian societies ; Marital harmony and personal compatibility in marriage. Different life styles . Family –orientation to family studies , origin, evaluation , meaning, definition of family institution; Structure and forms of families across different countries. Laws related to marriage and family; Stages of family life cycle; family disorganization , its causes and consequences , marriage and family counselling. Meaning, Definition and need of population education, causes and consequences of population explosion, Methods and devises of population control.

Practical

Views of youth (Urban/Rural) towards readiness for marriage and types of readiness; Interviewing ten married couples for understanding the areas of marital compatibility and In-compatibility in marriage and their consequences on couples’ mental health; Analysis of educational films related to marriage and family life; Special lectures by an advocate- care to be taken in utilizing laws related to marriage and family

B) PROFESSIONAL ELECTIVES- ORGANIZATION AND MANAGEMENT OF ECCD PROGRAMMES

5.2.5 HDFFS MEC 351 Developmental Assessment of Young Children

4 (2+2)

Theory

Assessment, Definition, functions, Screening and measurement concepts; Need & utility of assessment of children; Trends and challenges in developmental assessment of young children; Methods of child study-tools and techniques of assessment; Assessment of children from birth to eight years; Interpretation of assessment information for parents, educators and policy makers: Identification of children with developmental challenges; Ethical principles in child study

Practical

Screening and diagnostic assessment of young children for various developments through different tools and techniques , physical and motor development ; anthropometric measurements and reference standards. Motor and behavioral assessment using Bayley’s scales for infant development, Case studies. Home environment scale . Early childhood environmental rating scale , APGAR early screening test, Recording and interpretation of assessment and report writing . Development of action programmes for parents , surrogates, field functionaries and other professionals.

5.2.6 HDFFS MEC 352 Family Counseling

4 (2+2)

Theory

Concepts, nature, scope, principles and need of counselling ; Types of counselling . Attributes and characteristics of counselor . Approaches to counselling . Thrust areas in family counselling – educational, vocational social, and personal, premarital and marital. Problems in family counselling; Approaches to evaluate family counselling; Counselor’s self-awareness and growth .

Practical

Visit to the family guidance and counselling institutions . Observing the counselling sessions and reporting the observations. Identifying the families with problems and conducting case studies . Acquiring familiarization with the tests and techniques used for the assessment of families with special needs. Developing intervention programmes for the identified families, executing the intervention programmes, making post –intervention

large and small group activities . Addressing emergencies in ECCE institutes . Working with parents with professional behavior and ethics. Executing of supportive roles in ECCE centers. Working with strategic action plan to help children with mild behaviour problems.

5.2.11 HDFS MEC 363 Literature for Young Children 4 (1+3)

Theory

Need, importance and types of children's literature. Criteria for the development of children's literature. Selection of theme, plot, illustration, characterization, format and language for children's literature. Principles for developing literature for different domains of development and age groups . Corresponding with publishers and purchase procedures.

Practical

Appraisal of available children's literature in the market . Interviewing parents, children and school librarians to find out the reading habits of children. Reviewing children's sections in newspapers and magazines for developing and understanding about what is popular with children; Panel discussion on elements of writing for children . Learning to depict visuals on the basis of write-ups. Developing a reading set up. Developing literature for different age group of children ; Cover page designing . Computer aided technology book / literature development ; Learning to correspond with publishers for placing orders. Visit to multimedia designing centers for observation; Visit to press for orientation ; Visit to book fairs for updating knowledge about literature for children .

5.2.12 HDFS MEC 364 Intervention Programmes for Developmentally Challenged Children 4 (1+3)

Theory

Significance of intervention, modes and venues of intervention; Concept of intervention process; Strategies for planning, execution, monitoring and evaluation of intervention programmes; Importance of home and institutional environment; Personality traits of staff.

Practical

Identification of needs of developmentally challenged children. Orthopedically handicapped, socially deviant and learning disabled. Survey of family and community opinion about developmentally challenged children. Programme development of different categories of developmentally challenged children to enhance different developmental aspects. Programme implication and evaluation. Development of educational package for parents and teachers .

5.2.13 HDFS MEC 471 Entrepreneurship in Child Care Services 6 (2+4)

Theory

Entrepreneurship-Significance and scope; entrepreneurial competencies, development of skills like Communication, leadership, problem solving, decision making, and resource management. Project planning – characteristics , functions, dimensions of planning, types, ethics and scope. Format of proposals for submission. Funding agencies. Legal and regulatory procedures.

Practical

The students have to identify her /his own area for Entrepreneurship and has to develop one complete project proposal. For execution of it few guidelines are identification of the project, selection of the location and clientele, input sources- manpower, finance and infrastructural facilities, scope for implementation (cost

benefit analysis). Registration / licensing. Conducting a feasibility study etc and presentation of project proposal.

5.2.14 HDFS MEC 472 Family and Child Welfare 3 (2+1)

Theory

Concept and scope of family and child welfare in India and abroad. (Children, Adolescents, Women, Aged etc); Rights and responsibilities of children, parents and society; Historical orientation to family and child welfare services in India ; Classification of family and child welfare agencies- organizational classification, government , private , national and international; Classification according to nature of services- supportive and substitutive; Welfare programmes at local, state and international level; Principles and policies; Organizational structure, function / objectives of these programmes and beneficiaries .

Practical

Visit to Govt. family and child welfare Institutions: Visit to Non- Govt. family and child welfare institutions: Video films on women and family empowerment, Documentary films on child welfare & family welfare : Documentation of all practical experiences / work and their analysis : Class reports on latest policies and programmes for child and family welfare.

5.2.15 HDFS MEC 473 Developing Play Material for Children 4 (1+3)

Theory

Meaning , significance and value of play ; Stages, types of play and play material; Implication of play on wholesome development.

Practical Significance of educational play materials. Preparation of social and fantasy play materials, mirrors, dolls, puppets, and stuffed toys. Exploration and mastery of play materials, wooden blocks, puzzles, pattern-making materials , books, music, art and movement play materials. Art and craft materials, musical instruments , audiovisual materials. Gross motor play materials. Push and pull toys, preparation of flash cards , charts , posters and models , use of indigenous play materials .

5.2.16 HDFS MEC 474 Infant Stimulation Programmes 4 (1+3)

Theory

Significance and advantages of infant stimulation: Infants' needs and ways to meet them: Milestones of infant development : Infant stimulation (internal and external infant stimulants) and its impact on wholesome development ; Quality and components of home environment and its significance

Practical

Visit to different day care , infant and toddler centers. Observation and recording of development and behaviour in different ecological settings. Study of currently adopted infant stimulation practices and materials in home and institutional settings (infant, toddler centers, day care centers); Preparation of infant stimulation programme for physical , motor, cognitive , language , socio - emotional domains. Development of indigenous low cost materials for Infant stimulation kit and its evaluation. Implementation of prepared programme in different ecological settings; Its modification based on group evaluation and developmental outcome of infants .

5.3 DEPARTMENT OF FAMILY RESOURCE MANAGEMENT

A) CORE COURSES

5.3.1 FRM 111 Management of Family Resources 2 (2+0)

Theory

Definition, scope and significance of management. Managerial functions of families. Systems approach to Family Resource management. Values - definition, importance, classification and characteristics. Goals – definition, characteristics and types. Standards-definition, classification and criteria of selecting standards. Resources-definition, classification, characteristics, increasing satisfaction, objectives and principles of use of resources. Communication- definition, process, classification and barriers. Decision making process- types of decisions, steps in decision making and factors affecting decision-making. Management process- definition, Planning- importance, types, characteristics and techniques, Organizing, Controlling- definition, phases and factors, Evaluation. Management process applied to time - philosophy of time, tools of time management, process of time management. Management process applied to energy - concept, fatigue, measures to relieve fatigue, process of energy management and effective use of body. Work simplification - concept, techniques and classes of change.

5.3.2 FRM 122 Family Economics 2(1+1)

Theory

Meaning and scope of family finance management. Family - definitions, characteristics, its types and factors affecting family income and expenditure. Budgeting - steps and types of family budget, controlling budget and evaluation of budget Engel's law of consumption. Account keeping and record keeping. Credit - need, types, use and credit institutions. Planning for family's financial security - savings, investments, insurance, taxation and will. Money - types and sources of income, methods of handling money, management of money :budget, Controlling & evaluating.

Practical

Making personal and family budget, Family financial record keeping, Bank withdrawals, deposits, drafts etc. Visit to saving and insurance institutions. Calculation of credit costs and taxes.

5.3.3 FRM 123 Consumer Education 2(1+1)

Theory

Consumer – definition and role. Consumer problems. Consumer education, consumers right and responsibilities. Unfair trade practices - adulteration, faulty weights and measures etc., Sources of consumer information - advertisements, labels, packages etc. Consumer protection and welfare. Consumer protection laws.

Practical

Adulteration detection. Critical analysis of labels and brands of consumer products, standardized marks, weights and measures etc. Market Survey. Preparing A. V. aids for consumer education. Consumer day Celebration.

5.3.4 FRM 234 Housing and Space Management 3 (1+2)

Theory

Housing and its importance, housing needs at different stages of family life cycle. Functions of house. Selection of site, orientation and zoning. Factors considered while planning a house. Building byelaws. Economy in constructing a house - Buying/ building a house, government / semi government housing. Housing problems in India. Housing finance. Ergonomics in Home, Basics of domestic plumbing, water supply and electricity

Practical

Basic shapes and styles, Techniques in flower arrangement, Composition for different looks, Ikebana styles of flower arrangement, Arrangements for unique containers, Occasional arrangements, Accessories, titles and themes in flower arrangements, Alternatives to flower arrangements, bouquets.

Practical

Bonsai – important species and maintenance. Flower making from different materials. Flower collection, storage and arrangement. Care of flowers and foliage. Selection and preparation of plant materials. Drying and preservation of flowers and foliage. Application of flower arrangements for different areas and occasions. Preparation of permanent arrangement. Preparation of bouquets, garlands etc. Visit to nursery and Gardens. Dry Arrangements styles and techniques, plant material preparation, care and preservation techniques, placement and presentation.

5.3.10 FRM ID 355 Drawings in Interior 3(1+2)

Theory

The theory of projections – Introduction. Types of axonometric drawings. Perspective drawings. Oblique drawings. Orthographic projection. Isometric drawing. Different rendering techniques and rendering symbols used in architectural drawings.

Practical

Different projections and views - Orthographic projections and views. Isometric projection and view. Axonometric views. Oblique projection. Perspective drawings. Learning to draw isometric views from orthographic projections.

5.3.11 FRM ID 361 Interior Designing and Decoration 3 (1+2)

Theory

Objective of interior decoration. Elements of Art and principles of design in interior decoration. Colour – theories, characteristics and application of colour in interiors. Lighting- types and effect of architectural and decorative lighting, lighting requirements for various activities and areas, optical illusion, outdoors lighting. Importance of accessories in home interiors

Practical

Application of elements of art and principles of design in interior decoration. Planning of various areas and rooms of residential and institutional buildings. Planning colour schemes and lighting for various areas. Creating optical illusion. Estimating furnishing cost for different rooms/ areas.

5.3.12 FRM ID 362 Floor and Floor Treatments 2 (1+1)

Theory

Floor - definition, importance and types. Floor and floor treatment - types, care and maintenance. Carpet and rugs - its type and selection. Indoor and outdoor carpeting. Storage of floor covering, pretreatment and storage techniques.

Practical

Market survey for various types of floors and floor covering. Traditional and contemporary floor treatments. Care of floor coverings.

5.3.13 FRM ID 363 Space Designing – II (Commercial) 3 (0+3)

Practical

Introduction to public building and its types. Building-by-laws. Lighting arrangement for public buildings. Ergonomic designing of spaces in public buildings. Indoor climate of public buildings. Plans of various public buildings - educational buildings, school, college and library, commercial buildings, banks, offices, recreational buildings: hotels, restaurant and clubs. Planning different spaces in public buildings. Elevations of different types of public buildings. Sections of different types of public buildings. Perspective of different types of public buildings. Visits to various public-building sites.

5.3.14 FRM ID 364 CAD Fundamentals 3 (0+3)

Practical

Introduction to AutoCAD. Basic Drawing Techniques, Advanced Drawing Commands, Drawing & Co-ordinate input, Isometric drawing & view ports, Text & units. Editing Techniques- offset, rotate, Lengthen, trim, extend, Chamfer. Dimensioning, Rendering techniques, Working with layers.

5.3.15 FRM ID 365 Functional interiors for special needs 3 (2+1)

Theory

Housing environments - Interior types based on functional needs, environment for specific purposes – interiors for youth, elderly and other special needs. Planning, programming, designing and evaluating interiors for elderly and special needs; Functional interior options for specific purposes and special needs including independent living, congregate living, shared living, continuing care environment and nursing care environments.

Practical

Simulating interior environments for specific purposes. Making master plan concepts through drawings of interior representations for special needs. Arranging simulated interiors for special needs specific purposes. Oral presentations and written reports of any functional master plan.

5.3.16 FRM ID 366 Traditional and Contemporary Interiors 3 (3+0)

Theory

Concept of interior decoration in India. History of interior decoration. Architecture and decorative art. Period art in interior decoration. Changing ideas of homes in India – style, period, characteristics and adaptation of design in interiors. Traditional and modern handicrafts of India.

5.3.17 FRM ID 471 Walls and Window Treatments 4(1+3)

Theory

Wall materials. Finishes and surfacing - wall paper, paints, wood paneling, laminator, ceramic tiles, linoleum and fabrics, their care and maintenance. Wall elements -windows, doors. Window treatments - suspension methods, factors influencing choice of window treatment. Ceiling & Ceiling enrichment

Practical

Study of latest wall finishes; Market survey for various types of drapery and curtain materials and costs. Planning window dressings for different types of windows, problem windows and their treatment, element and principles of design in window treatments. Study of artificial ceilings.

5.3.18 FRM ID 472 Computer Aided Designing 4 (0+4)

A) CORE COURSES

5.4.1 TAD 111 Fundamentals of Clothing Construction

3 (1+2)

Theory

Equipment and accessories used in clothing construction: their care and use with special reference to sewing machine, common defects, general repair; clothing construction terminology; construction process: their suitability for different fabrics and clothing articles; preparation of fabrics for layout and cutting; importance and functions of clothes; clothing requirement of infants and toddlers, pre-schoolers and elementary school children.

Practical

Use of sewing equipment, working, care and repair of sewing machine, preparation of samples of basic hand stitches, seams, edge finishing, disposal of fullness, finishing of necklines, placket openings, fasteners and mending, preparation and layout of different fabrics; Drafting, cutting and stitching of laundry bag, apron, panties/bloomer and frock.

5.4.2 TAD 122 Textile Science and Care

3 (2+1)

Theory

Introduction of textiles; textile fibers- classification; terminology used in textiles; processing and manufacturing method, properties and use of different textile fibers – cotton, silk, wool, rayon, polyester, acrylic, other minor fibers; labels and tags used in textiles; yarn classification, characteristics and their use; method of fabric construction – weaving, knitting, lace making, felting, non-woven; use and care of textiles; laundry equipment, their use and care; principles and methods of washing and finishing; stain removal – principles, classification and techniques; cleansing agents – water, detergent, soaps and others; laundry reagents – acidic, alkaline reagents and bleaching agent; additives used in laundry- stiffening agents and bluing; principles of dry cleaning- use of absorbents and solvents; introduction to textile finishes; common finishes used in textiles; disinfecting and storage and clothes.

Practical

Identification of textile fibers- visual test, microscopic test, burning test, chemical test; Study of yarns- types, yarn size; thread count, bow, skew ness; Study of common fabrics available in the market; Removal of common stains from different fabrics; Demonstration of laundry equipment; Washing, finishing and storage of following textile articles – cotton, silk, wool, synthetics and other special articles- zari, embroidered fabric, lace etc.; visit to a textile mill and reporting.

5.4.3 TAD 233 Apparel Designing and Construction

3 (1+2)

Theory

Study on different types of fabrics available in the market for apparel purposes; design elements and principles as applied to clothing and apparel designing; factors affecting clothing selection; clothing requirements of adolescents, adults and senior citizens; Clothing needs for different occasions, Clothing and personality; clothing budget; wardrobe planning

Practical

Survey on different types of materials available; taking body measurements –children and adults; drafting child's bodice and sleeve blocks; frock- designing, pattern alteration, estimation of fabric, drafting, cutting of frock; petticoat, blouses, lady's shirt, churidar payjama / salwar, night suit, stitching and finishing of articles; display of articles.

5.4.4 TAD 244. Fundamentals of Textile Designing

3 (2+1)

Theory

Introduction – techniques of textile designing – weaving, knitting, braiding, crocheting and lace making; weaving- weaving principles, weaving accessories, loom and its parts; Weave calculations- estimation of warp and weft yarn for weaving, preparation of warp and weft yarns for weaving; basic weaves- plain-rib & basket, twill, satin and sateen weaves knitting-terminology, principles of knitting and classification; knitting machines and their nomenclature; types of knits – warp knits and weft knits and their applications; performance of knits; introduction to basic hand embroidery stitches; dyeing and printing- brief study of the types of dyes; dyeing methods – fibre, yarn and piece dyeing, advantages and disadvantages, Printing – introduction and brief study of different methods of printing.

Practical

Preparation of fabric for dyeing, textile designing through tie and dye, batik and block printing; weaving samples of plain weave, colour and weave effects in weaving; knitting machine - parts and accessories, setting of the machine, making patterns, preparing samples with different stitches and multi coloured knitting samples; hand knitting – basic skills, basic stitches, shaping stitches, casting off and selvages, textured patterns, preparing samples using various techniques; hand embroidery – various types and method of stitching; preparing sample with embroidery stitches.

B) PROFESSIONAL ELECTIVES- TEXTILE DESIGNING

5.4.5 TAD TD 351 Traditional Indian Textiles

3 (2+1)

Theory

Traditional textiles-study of woven textiles – Patola, Kullu shawls, Maheswari, Chanderi, Kosa silks, Baluchari Buttidar, Brocades of Banaras – Madhanpura, Aliapura, Mulmuls of Bihar, Bandhas from Orissa, Sambalpuri sarees, Dacca muslin, Paithani, Himroos, Amroos, Sholapur durries, karalakudi sarees, Ikkal sarees, Mysore silks, Sutada durries, Kanchipuram sarees, Salem sarees,, Coimbatore sarees, Madurai sarees, Pochampally, Arani, Venkatagiri, Guntur sarees, Chirala & Jandrapet, Gadwal, Uppada, Mangalgiri, Dharmavaram, Madhanapalli, Narayanapet sarees etc traditionally dyed and printed textiles – Bhandinis; Madhubani; Khadi, Kalamkari and embroideries – Kashida,; Mochibarat, Kantha, Kasuthi, Kutch, Banjara work present in different states of India. Their importance and present scenario in textiles and apparel. Factors affecting diversity of textiles.

Practical

Sample preparation of traditional Indian embroideries and textiles; documentation of Indian Textiles and embroideries; preparation of two articles using combination of few of the following traditional textile crafts- Kalamkari; Madhubani; Sanganeri; Indian miniatures; Patola; Ikat; Bandhani; visit to Museum & Art Galleries.

5.4.6 TAD TD 352 Computer Aided Designing-I

4 (0+4)

Practical

Importance of computer in the field of textiles and apparel; status of CAD technology; basics of graphic software; basic commands- lines, circle, square and triangle etc., familiarization, application; drawing basic silhouettes colour application and creation of new textures; analysis of line, shape and form; drawing garment patterns, alteration and modification of the patterns, different tools for photo-realistic draping of garments; designing a garment, making patterns, preparation of spec sheets and costing.

5.4.7 TAD TD 353 Principles of Design Application

4 (1+3)

Theory

Basic designing, classification of textile design (woven & printed), traditional motifs in relation to textiles, design development and adjustment, effect of yarn, weave, colour and finishing process of textiles on fashion,

general role of the design. Other methods of producing designs on textiles and comparison; selection of textile designs for apparel, home furnishings and other household articles.

Practical

Design analysis- structural and applied design, variation in fiber, yarn and fabric construction Creative projects in sketching and preparing geometrical, abstract, stylized, natural, ethnic & traditional motifs with different colour schemes suitable for dyeing, printing, embroidery techniques; suitable for clothing as well as furnishing fabrics; field visit to printing and textile design centre.

5.4.8 TAD TD 354 Traditional Costumes of India 3(2+1)

Theory

Traditional costumes prevalent in different states of India- women, men, children, dance and tribal –Northern & west regions - Jammu & Kashmir, Himachal Pradesh, Punjab, Haryana, Rajasthan, Gujarat, Uttar Pradesh, Bihar, Madhya Pradesh; Eastern region – West Bengal Orissa, Sikkim, Assam, Meghalaya, Tripura, Mizoram, Manipur, Nagaland, Arunachal Pradesh; Southern region– Andhra Pradesh, Karnataka, Tamilnadu and Kerala, Maharastra, Goa, Pondichery, Andaman & Nicobar , Lakshadweep; their importance in present scenario for textiles and apparel industry; factors affecting diversity of costumes in India.

Practical

Visit to museum and art gallery and reporting; developing designs for women based on the traditional costumes of different states – planning for casual wear, party wear, executive wear; developing designs for men-planning casual wear, party wear, executive wear; documentation of women's and men's wear.

5.4.9 TAD TD 355 Textile Finishing 3(2+1)

Theory

Finishes, Aims of finishing, Mechanical and Chemical finishes. Finishes applied to different fabric- Cotton, wool, silk and synthetic, Finishes related to aesthetic value, safety, care and comfort. ecological aspects of environmental issues in finishing units.

Practical

Preparation of sample using basic finishes; fabric evaluation for different finishes, visit to finishing units and project report

5.4.10 TAD TD 361 Retailing and Merchandising of Textiles and Apparel 3(2+1)

Theory

Retailing and merchandising : terminology, concept and principles, factors affecting merchandising; role and responsibilities of a merchandiser; marketing trends; forecasting and their significance in product planning; merchandising for buying houses, departmental stores, export houses; sale promotion techniques; export and import procedures; role of organizations for export promotion.

Practical

Market analysis through visit to retail and wholesale textile market, show rooms, chain stores, factory outlets, niche stores, boutiques and reporting; developing display techniques for visual merchandising of apparel and textiles and presentation. Sourcing for fashion.

5.4.11 TAD TD 362 Computer Aided Designing II 3 (0+3)

Practical: Introduction to software, learning Corel Draw software commands and practicing exercises create a drawing, render with different colours, patterns, textures; drawing basic motives – Natural/floral, stylized, abstract, and geometric; rendering with colours and textures; creating a designer's logo, representation of geometrical actions, developing lattice and designs for border patterns, developing lattice for all over pattern – brick, diamond, diaper, ogee, spot; creation of pattern for upholstery, apparels, sarees, bed sheets, curtains; creating suitable backgrounds for border and all over patterns.

5.4.12 TAD TD 363 Fabric Embellishment-I

4 (0+4)

Practical: Introduction to fabric embellishment, survey of embellishments available in the market, Introduction about the embroidery tools and supplies – Yarns, threads, fabrics, frames, hoops, needles, design transfer material; designing and selection for hand embroidery – sources and interpretation, choosing, colors, enlarging and reducing designs ;transferring the design-hot iron, dress makers carbon, pricking, using embroidery frame; open work- drawn thread work – preparation of the fabric – stem, simple, knotted., grouping, laced stitches; metal thread embroidery; demonstration – Ari, Zardosi; Macramé – materials required, basic macramé knots, square, double, half hitch; Bead work - one needle method, couching, tambour beading; mirror work- round, square, oval mirrors, sample preparation; quilting: Trapunto/stuffed, shadow, flat/queen Anne, herring bone/cord quilting, quilting - assembling the material, sample preparation; tatting - basic stitches, abbreviations, making motifs and lace; appliqué –types and sample preparation; patch work-mosaic-one shaped, block/unit, overlapping, crazy; crochet – materials required, method of crocheting – chain, single crochet, hay double crochet, treble crochet, slipstitch, gauge, shaping-increasing, decreasing and abbreviations; preparation of motifs and edges; preparation of any commercially viable article; Mood board preparation for article with above embroidery stitches; cost estimation of prepared article; evaluation and display.

5.4.13 TAD TD 364

Knitting Technology- I

4 (1+3)

Theory

Knitting yarn, their classifications, description, properties and use; Counts and size of yarn; conditioning of yarn their strength, twist and elasticity; Principal sources of supply- testing of yarn for count, uniformity and colour fastness; knitting machines, their nomenclature and uses, mechanisms and adaptability for various purposes, components, their names and descriptions, functions and adjustments, care and maintenance; Hand-knitting needles, their types and uses; sketching of chief functional parts of knitting machine; Machine gauge and its estimation, methods of selection of yarn of right count for different gauges of knitting machines.

Practical

Method of knitting of basic stitches (with two and more yarns) i.e. plain, rib and pearl and combinations; selection of yarns for various knitted garments; adjustment of knitting machines; feeding and functioning of various parts of different kinds of knitting machines; Designing and knitting of different samples and patterns on flat and circular machines; calculation of machine gauge and count; Methods of repair of various types of defects in knitted fabrics.

5.4.14 TAD TD 365

Designing through Dyeing and Printing

3 (1+2)

Theory

Dyes classification, natural and synthetic – direct, acid, basic, vat, naphthol, fibre reactive, pigment; selection of suitable dyes, dyeing methods – fibre, yarn, fabric – advantages, disadvantages; printing-methods, types-stencil, block, flock, transfer, screen, resist dyeing-tie and dye and batik, combination techniques, pollution through dyeing and printing, ISO 14000.

Practical

Preparation of yarn and fabric for dyeing; techniques of tie and dye – sample preparation; designing garments with tie and dye techniques - tying and dyeing and finishing; Batik – tools and techniques of batik – designing garments with batik designs, washing dyeing dewaxing and finishing; stencil printing - preparation of stencil, printing and finishing; screen printing - preparation of screen, printing samples; visit to dyeing and printing units and reporting; visit to a ISO 14000 unit, observation of ecological factors, report writing.

5.4.15 TAD TD 471 Computer Aided Designing - Customization

3 (0+3)

Practical

Introduction to CAD & portfolio Development; PhotoShop- Introduction to software-scalar & vector images; setting up image resolutions, creating new images- scanning, saving copy, file saving etc; overview of tool box; familiarization of tools; working with layers-creating new layers, layer lock options link/unlink layers, layer mask, layer set, trash etc.; practicing layers; use of colour gradient, enhancing colour, colour harmony, working with filters, making suitable background for portfolio presentation; creation of background for portfolio presentation, creation of back ground by collage work; rendering fashion figures-change of colours, textures and patterns; creation of different frock, kameez, tops and skirts designs, for women party wear, nighties and customization; creation of Apparel Library, developing portfolio.

5.4.16 TAD TD 472 Structural Fabric Design

4 (2+2)

Theory

Introduction to fabric structures: Woven structures, knitted structures and non woven structures. Introduction and history of weaving, study of various types of handlooms, financial assistance for development of handlooms and khadi industry and organisations related to handlooms and khadi industries. Modern weaving, motions of healds sley, shuttle. Shading mechanism, picking and checking mechanism drafting and lifting plan; characteristics of woven fabrics; warp and filling, fabric count, grain balance, selvedge, fabric width and fabric weight; environmental impact of weaving.

Practical

Demonstration on loom and its part, setting the warp on the loom; threading, preparing the weft; drafting and lifting plan; weaving samples on loom- Plain weave, basket weave, rib weave, twill and satin weave, straight draft. Fabric Analysis- count, fiber, type of yarn, twist of yarn. Project work on frame loom- preparing a small rug; Visit to weaving centres, mills, etc.

5.4.17 TADTD 473 Knitting Technology – II

3 (0+3)

Practical

System of fabric manufacture - fashioned, circular and seamless; Methods of yarn feed and wind-up tackle; stitches employed in knitting, their description and application- cutting, sewing, drawing and clocking- Trimming and make up-Choice of materials- knitted fabrics, their trade name and description, weight percentage of mixture articles speed of frames and production. Cost of raw materials and yarn; cost of hosiery products for the trade marketing of finished products. Knitting of Baby-set, gent's vest, leggings, hood cap bloomer on flat bed knitting machine.

5.4.18 TAD TD 474 Project Work

3(0+3)

Designing and making of fifteen textiles items of a given theme; projection of the work through media.

5.4.19 TAD TD 475 Textile Industry Management

3 (2+1)

Theory

Textile Industry Management: definition and importance; terminology used; planning of textile business; capital management; industrial organizations and management practices, management aids, modernization of textile industry; Computer Integrated Management; quality aspects of management – ISO 9001-2000, ISO-14,000; personnel management – roles and responsibility of various cadres, basic amenities provided; factory and labour laws; trade globalization and its effect on Indian textile industry, status of textile industry in India, recent trends in textile industry.

Practical

costing and pricing of products - costing, methods of costing, advantages of each method; Planning of textile business and entrepreneur, Preparing project proposal

5.5 HOME SCIENCE EXTENSION AND COMMUNICATION MANAGEMENT

A) CORE COURSES

5.5.1 HE CM 111 Home Science Extension and Rural Development 3 (2+1)

Theory

Extension education – concept, need and importance with special reference to Home Science, philosophy, principles and objectives. Concept and need of rural development, meaning aim and functions of extension education for rural development. Constraints in rural development. Changing scenario of rural India. Historical development of extension education – glimpses of evolution of extension during pre-independence era. Community development programme – concept, objectives organization, activities, achievement and failures. Panchayati Raj Institutions - concept, structure and function. Recent developmental programmes for rural families - WDP, SJSY, KVKs. Role of ICAR, SAUs and NGOs in rural development.

Practical

Visit to Gram Panchayat, Study of Developmental Programme related with women and children. Visit to KVK. Study of NGOs.

5.5.2 HE CM 122 Communication and Instructional Technology 3 (1+2)

Theory

Concept meaning and principles of teaching and learning in Home Science Extension. Classification of extension teaching methods. Communication approaches – individual, group and mass. Concept, use, importance and limitations of following extension teaching methods: Home visits; Discussion and meetings; Field trips; Campaign; Exhibition; Printed material; Demonstration and Dramatization. Selection of extension teaching methods. Audiovisual aids meaning, importance, classification and functions. Graphic communication media - charts, posters, flash cards, bulletin board display, leaflet, folder and pamphlet. Projected aids-transparencies and slides. Electronic media – Radio, TV, Internet, E-mail. Three-dimensional communication aids – specimen, objects and models. Folk media-importance and types.

Practical

Familiarization with accessories for preparing instructional materials. Preparation and use of following audiovisual aids – charts /posters /flash cards, bulletin board display, transparencies, Puppets. Handling of slide projector and overhead projector. Planning and use of selected extension-teaching methods.

5.5.3 HE CM 233 Diffusion and Adoption of Home Stead Technologies 3 (2+1)

Theory

Communication – concept, importance, elements. Communication barriers and ways to overcome them. Diffusion – concept and elements. Meaning of related terms – innovation, adoption, innovation-decision process, rate of adoption, discontinuance, over adoption, social change, change agent and opinion leaders, change proneness. Characteristics of innovation with special reference to homestead technologies. Communication channels for technology transfer. Stages of adoption process (Innovation Decision Process). Adopter categories. Rate of adoption and factors affecting adoption. Consequences of adoption. Constraints in adoption of technologies.

Practical

Preparation of family survey schedule. Preparation of village survey schedule. Identification of needs and problems of rural women.

5.5.4 HE CM 244 Programme Development

3 (1+2)

Theory

Programme planning – Concept and importance; objectives and principles. Steps in programme planning. Involvement of local people in planning programme, Leader and Leadership – meaning, qualities and roles. Types of leaders – identification and training of leaders, Execution of programme – Environment building; Involvement of local leaders, local bodies, organizations and extension agencies; Constraints in implementation of programme at grass root level and ways to overcome them. Monitoring and evaluation of Extension programme – concept, importance types and techniques. Concept of five year plans and rural development . Participatory Rural Appraisal - Concept and techniques.

Practical

Establishing rapport with rural families. Conducting village and household survey. Development of small need based programme, its implementation and evaluation. Writing report and its presentation.

B) PROFESSIONAL COURSES - INFORMATION TECHNOLOGY

5.5.5 HE IT CM 351 Print Journalism

4 (2+2)

Theory

Journalism Concepts. Concepts related with print journalism. Role of press in development. Trends in print media. Principles of print media. Press laws, ethics and issues. Rural press and its importance in development. News gathering and interviewing techniques. News agencies and their working. Writing, editing, proof reading and reporting news, news stories, press release.

Practical

Developing, designing and layout of various types of print materials-handout, leaflet, newspaper, newsletter and announcement. Working on a lab journal by application of writing, editing, and proof reading skills and final production. Testing the readability of prepared material. Organization of press.

5.5.6 HE IT CM 352 Mass Communication

4 (1+3)

Theory

Meaning, nature, importance and characteristics of mass communication. Different mass media - their characteristics and use in communication. Trends in media and technology. Application of computer based instruction in extension.

Practical

Preparation of instructional modules for different mass media.

5.5.7 HE IT CM 353 Training and Human Resource Development

3 (1+2)

Theory

Training–concept, need and importance of training for Human Recourse Development in Home Science. Concept, dimension, need and strategic intervention in Human Recourse Development. Facilitation skills in training and different training methods. Designing , conducting and evaluation of training programmes.

Practical

Planning and practicing different training methods. Conducting case studies of selected ongoing training programme. Designing and conducting training programmes for Human Recourse Development of 3-5 days duration. Developing and use of evaluation tools for measuring learning outcomes.

5.5.8 HE IT CM 354 Instructional Video Production 4 (1+3)

Theory

Use of video in mass communication. Understanding video camera and its parts. Different video formats and its accessories. Steps in video production - planning for scripting, recording and editing.

Practical

Familiarization and handling of video camera - changing and loading battery pack, inserting video cassette, focusing, zooming and shooting. Script writing, recording, editing and evaluating the prepared programme.

5.5.9 HE IT CM 361 Electronic Journalism 4 (1+3)

Theory

Introduction to electronic media - Expansion of radio and TV network. Role of TV and radio network in development. Writing and editing script for TV and radio programme. Media policies, laws and ethics for electronic journalism.

Practical

Learning about basics of radio and TV production techniques. Gathering Radio and TV news, visualizing news, field reporting of specialized news-cultural, political, sports, developmental etc. compiling, editing, news reading. Planning and production of radio and TV programmes-interview

5.5.10 HE IT CM 362 Multimedia Production 4 (1+3)

Theory

Multimedia – Concept, importance and application. Process of developing multimedia. Software for producing multimedia and interface elements. Hardware for multimedia – video capture card and CD-writer. Understanding the use of LCD panel, projector and scanner for multimedia presentation.

Practical

Multimedia applications. Operational handling of CD-Writer and multimedia kit. Multimedia development process. Designing the interface elements, Production and preparation of output of developed one multimedia package in the form of C.D. Use of LCD panel and projector.

5.5.11 HE IT CM 363 Public Relations and Social Marketing 4 (1+3)

Theory

Concept of Public Relation, object of Public Relation, role of Public Relation Officer. Relevance of public relations in changing scenario including public, private and governmental sector. Public relation – laws and ethics. Concept and philosophy of social marketing. Marketing V/S sale. Principles of social marketing. Importance of social marketing in development. Social marketing requirements and changing Indian marketing situations. Marketing oriented strategic planning, scanning the marketing environment, analyzing the consumer market and buyer behaviour, managing marketing channels etc.

Practical

Practical exercise on designing and pricing social products. Role of social marketing in change in public behaviour. Scanning Social market situations – strategies and constraints. Controlling and evaluating social marketing strategy. Visit to District Information Office.

5.5.12 HE IT CM 364 Audio Video Recording and Editing 2 (0+2)

Practical

Familiarization with sound recording equipment and their handling. Acquiring competencies in learning sound recording software. Video capturing - learning to handle video capturing software. Sound video editing.

5.5.13 HE IT CM 471 Photo journalism 4 (1+3)

Theory

Concept of photojournalism, types of photojournalism, code of ethics of photojournalism, importance of photojournalism. Principles of photojournalism. Qualities of photojournalists. Understanding different types of camera and their handling. Techniques and processing of photography, importance of captions.

Practical

Handling and use of photographic equipment. Techniques of photography using different types of camera and computer. Exposing, developing, printing, caption writing, photo editing, writing and reporting for photo features, exhibitions and displays etc.

5.5.14 HE IT CM 472 Digital Advertising 4 (1+3)

Theory

Advertising-concept, importance, role, types, elements, principles and techniques. Principles and types of designing. Planning of advertisements for different media-print, radio, television, (folders, banners, posters, wall writings, cartoons etc.)

Practical

Familiarization and handling of the digital camera, capturing on computer, editing and presentation.

5.5.15 HE IT CM 473 Project Management 4 (1+3)

Theory

An overview of project management. Project initiation and resource allocation. Market and demand analysis. Environmental appraisal of projects. Cost benefit analysis. Project planning formulation, budgeting, scheduling, monitoring and control, concept of CPM and PERT.

Practical

Identification of clientele. Planning and development of a viable project. Visit to different banks and other financing institutions. Studying new schemes for financing home related projects.

5.5.16 HE IT CM 474 Entrepreneurship Development 4 (1+3)

Theory

Concept, need and importance of entrepreneurship development for farm families. Process of initiating enterprise. Type of enterprises - their merits and demerits. Government policies and schemes for entrepreneurship development among farm women. Entrepreneurial motivation. Competencies required in women entrepreneurs - management of financial resources, launching and organizing enterprise, marketing management.

Practical

Visit to a small scale and cottage industry. Study of one enterprise in detail. Preparing a project proposal for submitting to a funding agency. Interaction with successful women entrepreneurs

5.5.17 HE IT CM 475 Designing Information Material 4 (1+3)

Theory

Principles of designing, Different software for print media and presentation material. Field testing – concept and importance.

Practical

Operation and use of applied software like M.S. Office, Power Point, Corel Draw/Illustrator, PhotoShop, Page Maker, Graphics, Animation, DTP, etc., Preparing Computer aided aids - Leaflet/Handout/Poster, Booklet/flipbook, Slides. Field testing of any one developed aid. Web page for computer advertisement.