

DRAFT

National Education Policy-2020

Common Minimum Syllabus for Uttarakhand State Universities and Colleges

Four Year Undergraduate Programme- FYUP/Honours Programme/master's in arts

PROPOSED STRUCTURE FOR FYUP/MASTER'S IN HOME SCIENCE SYLLABUS

DEPARTMENT OF HOME SCIENCE

(HSC 4th and 5th year)

List of Experts in drafting NEP (2020) syllabus (Home Science)

S.no	Name and Designation of Expert	
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3	Dr Meena Batham Associate Professor Department of Fabric and Apparel Science, Institute of Home Economics, Delhi	Expert
4	Dr Parth Banerjee Consultant, Asian Development Bank	Expert
5	Professor Mukta Singh Head Department of Home Science, M.M.V. , B.H.U, Uttar Pradesh	Expert
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9	Professor Anju Bisht Head Department of Home Science, M.B.P.G College, Haldwani	Committee member
10	Prof Preeti (Home Science) Principal Govt P.G College Joshi math Uttarakhand	Committee member
11	Dr Prabha Bisht Associate Professor Department of Home Science, Govt PG Degree college Doiwala Dehradun	Committee member

FOUR TH YEAR	VII	HSC/ DSC/FYUP 101	Advanced fabric and clothing construction	Theory+ Practical	4 (2+2)
		HSC/ DSE/FYUP 102	Research methods and statistics	Theory+ Practical	4 (3+1)
		HSC/ DSE/FYUP 103	Theories of human development	Theory	4
		HSC/ DSE/FYUP 104	Advance food science	Theory+ Practical	4 (3+1)
		HSC/ DSC/FYUP 105	PRACTICAL 1- Clothing Construction, Research methods and Food science- Practical aspects (Practical based on DSC101, DSE 102 and DSE 104) [Practical Portion -DSC 101= 2 Credit, DSC102= 1 Credit, DSE 104 = 1Credit]	Practical	
		HSC/ GE/FYUP 106	Communication Techniques in Extension Education	Theory	4
		For those students who opt for GE course practical shall be considered of 3 credits and they can omit the practical portion of 1 credit (from HSC / DSE/FYUP102 OR DSE/FYUP 104)			
	HSC/ DE/FYUP 107 DISSERTATION	Dissertation on Major OR Dissertation on Minor		6	
	VIII	HSC/ DSC/FYUP 108	Food safety and preservation	Theory+ Practical	4 (3+1)
		HSC/ DSE/FYUP109	Life span development	Theory+ Practical	4 (3+1)
		HSC/ DSE/FYUP110	Advance home management	Theory+ Practical	4 (3+1)
		HSC/ DSE/FYUP 111	Extension in home science	Theory+ Practical	4 (3+1)
		HSC/ DSC/FYUP 112	PRACTICAL 2- Practical aspects of food safety and Preservation , life span development , Home management and Extension education (Practical based on DSC 108, DSE 109, DSE 110 and DSE 111) [Practical Portion -DSC 108= 1 Credit, DSE109= 1 Credit , DSE 110 = 1 Credit, DSE 111=1 Credit]	Practical	
		HSC/ GE/FYUP113	Marriage and Family Dynamics	Theory	4
		For those students who opt for GE course practical shall be considered of 3 credits and they can omit the practical portion of 1 credit (from HSC/ DSE/FYUP109 OR HSC /DSE/FYUP 110 OR DSE/FYUP 111)			

		HSC/ DE/FYUP114 DISSERTATION	Dissertation on Major OR Dissertation on Minor		6

Bachelors with Honors in Home Science

FIFTH YEAR	IX	HSC/ DSC/FYUP115	Indian embroideries and dying and printing techniques	Theory+ Practical	4 (2+2)
		HSC/ DSE/FYUP 116	Community nutrition	Theory+ Practical	4 (3+1)
		HSC/ DSE/FYUP 117	Child welfare in India	Theory	4
		HSC/ DSE/FYUP118	Human physiology	Theory+ Practical	4 (3+1)
		HSC/ DSC/FYUP 119	PRACTICAL 3 Practical aspects of Indian embroideries, Nutritional Assessment and Human Physiology (Practical based on DSC 115, DSE 116, and DSE 118) [Practical Portion -DSC 115= 2 Credit, DSE 116= 1 Credit , DSE 118 = 1 Credit]	Practical	
		HSC/ GE/FYUP 120	Psychological testing and Measurement	Theory	4
		For those students who opt for GE course practical shall be considered of 3 credits and they can omit the practical portion of 1 credit (from HSC/ DSE/FYUP 116 OR HSC/ DSE/FYUP118)			
		HSC/ DE/FYUP 121 DISSERTATION	Dissertation on Major OR Dissertation on Minor		6

	X	HSC/ DSC/FYUP 122	Housing needs and space planning in interior decoration	Theory+ Practical	4 (3+1)
		HSC/ DSE/FYUP123	Human nutrition and diet therapy	Theory+ Practical	4 (3+1)
		HSC/ DSE/FYUP 124	Children with special needs	Theory+ Practical	4 (3+1)
		HSC/ DSE/FYUP 125	Fashion Design and Development	Theory+ Practical	4 (3+1)
		HSC/ DSC/FYUP 126	PRACTICAL 4- Interior Decoration, Therapeutic Nutrition, children with special needs and fashion designing- Practical aspects (Practical based on DSC 122, DSE 123, DSE 124 and DSE 125) [Practical Portion -DSC 122= 1 Credit,	Practical	

	DSE123= 1 Credit , DSE 124 = 1 Credit, DSE 125=1 Credit]		
HSC/ GE/FYUP127	Sustainable Fashion	Theory	4
For those students who opt for GE course practical shall be considered of 3 credits and they can omit the practical portion of 1 credit that is of HSC/ DSE/FYUP 123OR HSC/ DSE/FYUP125			
HSC/ DE/FYUP 128 DISSERTATION	Dissertation on Major OR Dissertation on Minor		6

Masters of Home Science

HSC/ DSC/FYUP 101: ADVANCED FABRIC AND CLOTHING CONSTRUCTION
CREDIT: 04 (2+2)

Course Outcomes:

Students will be able to

- Understand about Yarn construction, mechanical and chemical spinning
- Understand about Weaving technology
- know about Equipment used in clothing construction

UNIT I:

Yarn construction– mechanical and chemical spinning; Different stages of yarn construction; Types of yarn– simple, textured and spun; simple– simple, ply, cord; novelty; ply, cable, double and novelty; yarn numbering and yarn twist

Blends–meaning, types, process and reasons for blending, difference between blends and mixed.

Unit II:

Weaving technology: Definition, main operations; Characteristics of woven fabrics;

Selvedge–types; Types of weaves.

Loom–Parts of loom; Classification and types of looms; Motions of the loom

Non-woven fabrics–meaning, types, methods and uses (Felting, Bonded and non-woven fabrics etc.)

Knitting technology: Definition, classification, material and equipments; Methods of knitting–Weft knitting and warp knitting; Uses and disadvantages of knitted fabrics

Unit III

Equipment used in clothing construction

Sewing machine: Parts and attachments; common defects and remedial measures, care and maintenance

Anthropometric Measurements: Need; taking measurements for different garments; precautions and method; tools and materials.

Unit IV

Techniques of clothing construction:

Drafting: Meaning and importance; tools, method and precautions; drafting on paper and cloth;

Pattern making: Meaning and importance; parts of pattern; tools required; symbols used and general rules.

General principles of clothing construction; Steps in clothing construction: Preparation of fabric for clothing construction; preparing layout; marking of cloth; principles of cutting; principles of stitching; finishing

Unit V:

Use of construction features in design- seams, darts, tucks, pleats, gathers, placket, opening, Shirring. Different types of–necklines, collars, yokes and sleeves.

References:

1. Vastra evam Paridhan, Shashi Prabha Jain and Archana Jain, Shiva Prakashan, Indore
2. Parivarik Paridhan Vyavastha, Manju Patni and Sapna Henry, Star Publications
3. Vastra Vigyan ke Mool Sidhanth, G.P. Sherry, Vinod Pustak Mandir
4. Griha Vigyan Vishwa kosh, Rama Sharma and M.K Mishra, Arjun Publishing House

HSC/ DSE/ FYUP 102: RESEARCH METHODS AND STATISTICS
CREDIT: 04 (3+1)

Course Outcomes:

Student will be able to –

- Demonstrate knowledge of the scientific method, purpose and approaches to research
- Understand Sampling and Editing of statistical data
- Prepare key elements of a research proposal

Unit I Research in Home Science- concept need and approaches Research approaches-problem oriented and interdisciplinary. Type of research Historical survey, experimental and case study

Unit II Definition and identification of research problem selection Hypothesis, basis assumption and limitation of research problems

Unit II Sampling: Types of samples and selection of samples, data collection techniques: cross-selection and longitudinal, studies: questionnaire, interview schedule, observation, lab-techniques.

Unit IV Editing of statistical data, classification and tabulation, role of statistics in research, elementary statistics: classification, tabulation and frequency distribution of data.

Unit V Measures of central tendency- Mean Median and Mode

Measures of dispersion– standard deviation. Probability, normal distribution and use of normal distribution, probability tables, t-test for small sample, use of computer for analysis of data, Report writing.

References:

1. Gupta, S.P., Statistical Methods, Sultan Chand and Sons, New Delhi, 1994
2. Jain, Gopal Lal, Research Methodology, Methods, Tools and Techniques, Mangal Deep Publications, Jaipur, 1998
3. Kothari, C.R.: An Introduction to Operational Research, Vikas Publishing House Pvt. Ltd, New Delhi, 1994
4. Wright, Susan E., Social Science Statistics Allyn and Bacon Inc., London, 1986

HSC/DSE/FYUP 103: THEORIES OF HUMAN DEVELOPMENT

CREDIT:04

Course outcomes:

After completing this course, the learner will be able to:

- Students will gain an insight into the importance and role of theories in Human Development.
- Students will develop an understanding of selected theories in Human Development.
- Students will become aware of the concepts and perspectives related to human development.

Unit I:

Maslow's self-actualization theory

Freud's psychosexual or psychoanalytic theory

Erikson's psychosocial theory

Unit II:

Skinner's theory of Operant or instrumental conditioning

Pavlov's theory of classical conditioning

Thorndike's Trial and Error Learning

Unit III:

Kohlberg's six stages of moral reasoning

Unit IV:

Piaget's cognitive development theory

References:

1. Morgan, Kingetal(1999):“Introduction to Psychology”, Tata McGraw-Hill Edition, Delhi, India
2. Hurlock E (2000): “Child Development”, Tata McGraw-Hill Edition, Delhi, India
3. Bal Vikas evam Bal Manovigyan, Brinda Singh, Panchseel Prakashan, Jaipur

HSC/DSE/ FYUP /104 ADVANCED FOOD SCIENCE

CREDIT: 04 (3+1)

Course outcomes:

- Understanding Food Science
- Understand about Food Composition and Nutritive Value of different food groups:
- Understand about Food Processing and Preservation:

Unit-1: Food in relation to health - Introduction to food science as a discipline and modern developments
Functional properties of foods - Definition, structure and properties of food hydrocolloids. Hydrocolloids as gelling, emulsifying, thickening, stabilizing and coating agents.
Important roles of proteins (denaturation and browning), carbohydrates (caramelization and crystallization) and fats (emulsification) in altering the functional properties of food.

Unit-2 Different food groups and their nutritive values

Cereals: Breakfast cereals– Uncooked and ready to eat products; Cereal-based products– processed, fermented and baked

Pulses and legumes: Composition and processing; Toxic constituents of Pulses and elimination of toxic factors.

Nuts and oilseeds: Use and processing

Fats and oils: Functions of oils and fats in food; Processing of fats

Fruits: Composition and nutritive value

Vegetables: Classification, composition, nutritive value and methods of cooking

Unit-3

Meat: Composition, cooking of meat; Changes produced during meat cooking; Meat substitutes

Fish: Type, composition and cookery, preservation and processing

Egg: Nutritive value and structure; Storage and processing; Effect of heat on egg protein;

Egg products; Egg cookery; use of egg as a thickening agent and an emulsifying agent.

Milk: Composition and importance; Milk processing; Milk products; Milk substitute.

Unit-4

Sugar: Different types of sugars; Indian confectionary

Spices and condiments: Role of major and minor spices and their use; active principles in Some spices, Adulteration of spices.

References

1. Amerine MA, Pengborn RM, RoceasierEB(1965). Principles of Sensory Evaluation and Academic Press, New York.
2. Srilakshmi, B. Food Science, 4th Edition, New Age Publishers, New Delhi.

**PRACTICAL 01- Clothing Construction, research methods and Food Science- Practical aspects
(HSE/ DSC/ FYUP 105)**

CREDIT: 04

(Practical based on DSC 101, DSE 102 and DSE 104)

(1 to 6 based on DSC 101)

1. Drafting and lifting plan of different weaves on graph paper and glaze paper
2. Visit to a cloth weaving unit and report writing

3. Hand knitting samples/article
4. Construction of darts, pleats, tucks, gathers; basic seams; collars and sleeves.
5. Drafting of adult basic bodice and sleeve block and stitching of blouse and kurta
6. Understanding and handling of sewing machine: various parts; accessories; care, common defects and remedial measures

(7 to 8 Practical based on DSE 102)

7. Questionnaire designing, using likert scales, Planning and conducting structured and semi structured interviews, Case study – in depth investigation of a subject or group
8. Quantitative analysis calculating percentages, means, medians and modes, report writing

(9to 11 Practical based on DSE 104)

9. Preparation of popped corn, preparation of wheat malt, preparation of jam and jellies, preparation of fermented foods
10. Preparation of baked goods,
preparation of mayonnaise,
Practical demonstrating stages of sugar cookery
11. Important National and International food preparations

**HSC/GE/ FYUP 106 Communication Techniques in Extension Education
(Credit 04)**

Course outcomes

- To develop understanding regarding various aspects of communication
- To develop understanding regarding various audio-visual aids used for groups: Individual, group, mass
- To develop ability to prepare, operate use of various audio-visual aids

UNIT I:

Concept of communication

Definition, meaning, functions and nature of communication
Elements of communication process, Models of communication
Barriers in communication

Unit II Forms of communication

Verbal and non verbal
Intra, inter, group, mass

Non projected communication aids- blackboard, diagrams, photographs, charts, graphs, poster, flash cards
Projected communication aids
Electronic communication aids- radio,TV

UNIT III:**Mass media**

Development of mass media

Types, roles and characteristics

Uses of electronic and traditional media

UNIT IV:**Adoption and Diffusion**

Concept of Adoption

Innovation and diffusion

The Adoption process

The Innovation- Decision process

Adopter categories

UNIT V:**Introduction to Information Communication Technology (ICT)**

Role of ICT in Extension work and development

References:

1. Dahama, O.P., and Bhatnagar, O.P. Education and Communication for Development (1985) Oxford and IBH Publishing Co., Pvt. Ltd., New Delhi
2. Heinrich Robert et. al. (1990). Instructional Media and the New Technologies of Instruction. Third Edition, Maxwerll MacMillian International editors
3. Kemp and Dayton (1985). Planning and Producing Instructional media, Harper and Row. Publishers, New York
4. Volker Simonson. (1984). Media Planning and Production. Merill Publishing Company

HSC/DE/ FYUP 107:

Dissertation (CREDIT: 06)

(0+2+4)

Dissertation on major or Dissertation on minor (Compulsory)

Dissertation on Major/Minor Credits :6 Credits

Dissertation will be based on Primary/Secondary data.

Note: The student will have to undergo a Dissertation on Major/ Dissertation on Minor on any topic relevant to Home Science, allotted by the concerned teacher and prepare a report of 60 to 100 pages, duly typed and binded

(A4 size paper having in Hindi/English with 1.5-line gap).

Semester VIII

HSC/DSC/ FYUP 108: FOOD SAFETY AND PRESERVATION CREDIT: 04. (3+1)

Learning outcomes

Students

- Will be able to know about Food sanitation and hygiene
- Will be able to understand about food adulteration
- Will be able to understand methods of Evaluation of foods, and methods of food preservation

Unit 1

Food sanitation and hygiene- – Introduction, Definition, Basic aspects of Personal Hygiene, Disease transmission

Food handling -preventing food borne illnesses, Education of food handler in handling and serving food, Importance of personal hygiene of the food handler, pest control

Food borne diseases

Causes of food spoilage

Unit2

Definition of Adulteration, Adulterants, Types of adulterants, Food laws – PFA Act, Essential Commodities Act,

FPO Act, MFPO, Milk and Milk products order, Food Standardization and Regulation Agencies in India- Agencies at state level, Central food Laboratories, HACCP, powers of food inspectors.

Enzymes in food processing

Unit-3

Evaluation of foods: Visual examination and sensory evaluation (Colour, texture, flavour and taste),

Unit4

Introduction to food preservation- Methods of preservation, General principles and applications of Food preservation.

Preservation by use of temperature -- Preservation by use of high and low temperature.

Preservation by drying- Preservation by drying and use of salt and sugar

Preservation by use of chemicals

Preservation by food irradiation

Unit 5 ENHANCEMENT OF FOODS – Food Fortification, Enrichment, Supplementation, Fermentation, Germination, Pre- and Probiotics and Organic Foods

REFERENCES

- 1:- Sunetra Roday, Food Safety and Sanitation, Tata McGraw-Hill Education, 2017
- 2:- Norman G. Marriott and Robert B. Gravani, Principles of Food Sanitation, Springer, 2018
- 3:- Dr. Anju Singh & Dr. Gouri Goyal, Bhojan posan awam swachhta, Sahitya Bhawan Publication, 2022
- 4:- krishna Sinha, Bhojan posan awam swachhta, Rakhi Prakashan, 2021

HSC/DSE/ FYUP 109: LIFE SPAN DEVELOPMENT (CREDIT: 04)(3+1)

Course outcomes

- The student will develop an understanding about the discipline of Lifespan development
- The student will understand the concept of stages and domains in lifespan development
- Students will be able to identify key developmental milestones in different life stages

Unit I:

Development during different stages of life cycle.

Prenatal period, conception and pregnancy, stages of prenatal development, factors affecting prenatal development, complications of pregnancy and birth process, Pre-school period- physical growth and motor skills development, language, speech and social development, skill in play, influence of nursery school and home environment on habits and development. Problems of this stage of growth

Unit II:

Elementary school years- physical growth and health, motor, social, emotional, cognitive, language, interests and personality development, effect of peers, school and media, role of parent and teacher, problems of this stage of growth.

Unit III: Adolescence

Puberty and Adolescence—definition and characteristics

Physical changes during puberty and adolescence

Developmental tasks of adolescence, Social and emotional development during adolescence.

Factors affecting social and emotional Development. Role of parents, teachers, peers and society.

Problems of adolescence—

Drop out from education system, juvenile delinquency— causes and prevention, addiction and alcoholism. Problems of adjustment, identity crisis.

Unit IV: Early Adulthood

Characteristics; Sub-stages; Developmental Tasks : , changes in Interests, Vocational and family adjustment in early adulthood (marital adjustment, adjustment to parenthood, adjustment to singlehood), hazards of vocational and marital adjustment, social mobility, personal and social hazards

Middle age;- Characteristic; Subdivision; Developmental tasks, problems, some common problems unique to this stage, Physical changes, Health, Changes in interest, Vocational adjustment, Changing family pattern.

Unit IV: Old Age

Characteristics; Subdivisions; Developmental Tasks, Types of Changes during ageing: Physical, Sensory, Sexual, Health, Changes in motor abilities, Changes in mental abilities and cognitive capacities, Changes in interests, Retirement, Loss of spouse; Vocational and Family life hazards of old age; Consequences of ageing.

REFERENCES

1. Vikasatmak Manovigyan, Rajendra Prasad Singh, Jitendra Kumar Upadhyay, Rajendra Singh; Motilal Banarsidas, New Delhi.
2. Baal Vikas evam Baal Manovigyan, Vrinda Singh, PanchsheelPrakashan, Jaipur
3. Hurlock B Elizabeth (1981), Developmental Psychology— A Life Span Approach, Tata Mc Graw Hill

4. Hurlock B Elizabeth (1978), Child Growth and Development, Tata McGraw Hill
5. Hurlock B Elizabeth (1997), Child Development, Tata McGraw Hill
6. Papalia E Diane & Olds Wendkos Sally (1975), A Child's World–Infancy through Adolescence, McGraw-Hill Book Company
7. Berk E Laura (2000), Child Development, Allyn and Bacon

HSC/DSE/ FYUP 110: ADVANCED HOME MANAGEMENT

CREDIT: 04 (3+1)

earning outcomes:

- To acquire knowledge about the concept of management.
- To acquire knowledge about the concept of values, goals and standards.
- To understand the basic concept of Management process
- To learn the basic concept of decision making
- To understand the meaning and classification of family resources.
- Students gain knowledge and skills related to effective time management and resource allocation.

Unit1

Management in family living, characteristics of management in home, role of home management, misconceptions regarding home management
Roles and responsibilities, characteristics and functions of a home manager

Unit2

Values–Concept, characteristics, classification and factors influencing values
Goals–Concept, types, factors influencing goals
Standards–Concept, classification of standards
Interrelatedness of values, goals and standards

Unit3

Management process: Planning, organizing, leading, controlling and evaluating
Decision making: Concept, steps, factors affecting, kind
Resources: Meaning and definition, role, characteristics, classification

Unit4

Time Management: Tools–peak-loads, work-curves, rest periods and work simplification
Energy Management: Classification of efforts used in homemaking, fatigue– types and Causes, Work simplification: Techniques– pathway chart, operation chart, micro- motion film analysis and path process chart

Unit5

Money Management: Budgeting– Definition, importance and steps in planning a budget. Account keeping–importance, types of account systems, methods of handling money, family financial records.

References:

1. An Introduction to Family Resource Management, Premavathy Seetharaman, Sonia Batra and Preeti Mehra, CBS Publishers and Distributors
2. Economics of the household, B A Drew, Mc Millan company, New York.
3. Consumer Economics, Dr. Richard, Irwin, Illinois (1983)

HSC/DSE/ FYUP 111: EXTENSION IN HOME

SCIENCE CREDIT: 04 (3+1)

learning outcomes:

To acquire knowledge about the concept of Home Science extension education

To acquire knowledge about Role and Qualities of Home science extension worker

Understand role of Home science in rural development

CREDIT: 04

Unit1: Home Science: Concept, objectives, areas and relationship with extension

Extension: concept, goals and history

Origin and need of Home Science Extension Education

Unit 2 Home science extension worker: Role and Qualities, Extension education methods.

Communication skills: verbal and non-verbal communication. Relationship between communication, extension and development.

Role of Home science in rural development, Role of women in rural development

Unit 3 Methods and media of community outreach; Audio Visual aids in Home Science extension education Agencies (national and international) associated with extension education for rural development. Diffusion of innovation and adoption through extension.

Unit 4 Community development: Understanding communities and their characteristics.

Organization, principles, characteristics and functions

Role of home scientists in community development

Welfare program for rural women and children. (DWARKA, ICDS and other social welfare program (TRYSEM, JRY)

Growth and Development of Panchayati Raj.

Rural Institutions of India. Village school, Mahila mandal, Youth clubs

References:

1. Griha Vigyan Prasar Shiksha, Manju Patney and U.S Thakur, Shiva Prakashan Indore
2. Communication for Development in the Third World Theory and Practices (1991). Sage Publication, New Delhi.
3. Chaubey BK (1990) A Handbook of Education Extension, Jyoti Publication, Allahabad
4. Singh, R. (1987) Textbook of Extension Sahitya Kala Prakashan, Ludhiana
5. Extension Education in Community (1961) Ministry of Food and Agriculture, Government of India, New Delhi
6. Extension Programme Planning, Oxford and IBH Publishing Company Pvt. Ltd. New Delhi

PRACTICAL 2 (HSC/DSC/ FYUP 112)

: (1+1+1+1)

Practical aspects of food safety and Preservation, life span development, Home management and Extension education

(Practical based on DSC 108, DSE 109, DSE 110 and DSE 111)

CREDIT: 04

(1 to 5 Practical based on DSC 108)

1. Blanching techniques for vegetables, Drying of fruit slices and vegetables (cabinet drying, sun drying)
2. Preparation of jam, jelly and squash
3. Tests (Home scale) to detect adulteration in milk, food grains, pulses and spices
4. Conducting sensory evaluation of foods by using ranking, descriptive and scoring test
5. Field visit to food processing plants/ foods service vendors to evaluate sanitary conditions

(6to 9 Practical based on DSE 109)

6. Observe and record keeping of fine motor skills of children aged 2-5 years
7. Prepare an educational game for preschool child
8. Survey adolescent on impact of social media on their self-concept, friendship and body imaging
9. Conduct case studies of individuals

(10to 12 Practical based on DSE 110)

10. Creating a house hold budget (Categories income, expenses, set saving goals), Making family budget for different income groups
11. Understanding fatigue its types and methods of reducing fatigue
12. Study of work simplification techniques –use of process chart and operation chart

(13to 16 Practical based on DSE 111)

13. Visit and Report Writing to Gram Panchayat.
14. Visit and report Writing to village school.
15. Collection of paper cutting / pamphlets related to any specific topic.
Plan and prepare slides / C.D. on any concerned topic
16. Demonstration as an instructional technology-method and result demonstration.

HSC/GE/ FYUP 113: Marriage and Family Dynamics

Credit: 04

Learning outcomes for a course on marriage and family dynamics and understand the significance of marriage and family

- Students will also learn about family life cycles
- To learn about Marital adjustment and Marriage guidance and counselling

Unit I

Marriage – Meaning, marriage as an institution, goals of marriage, selection of life partner, changes in marriage and their causes. Family life cycle. Readiness of marriage- physiological, social, psychological and others. Preparation for marriage

Family – Definition, functions, and types (with reference to family life cycle), characteristics of family, Family structure in India

Unit II

Patterns of changes in family relationships

Unit III Marital adjustment – factors contributing to difficulties in marital adjustment, adjustment to life partners, sexual adjustment, adjustment to in-laws, adjustment to partner hood.

Contemporary issues in Family life

Break-up of extended family, migration, dual career families, Non-traditional families, influence of extra familiar factors, films, TV, peer groups, neighborhood and school

Breakup of family: Divorce, separation, desertion, death of partner, single parenthood

Unit IV

Marriage guidance and counseling – meaning of counseling, factors causing tension in married life, importance of marriage guidance and counseling, areas in marriage requiring guidance.

Legal aspects: laws regarding marriage, adoption, divorce, inheritance

References:

Manav vikas – Shashi Prabha jain, Shiva Prakashan , Indore

HSC/DE/ FYUP 114: Dissertation

CREDIT: 06 (0+2+4)

Dissertation on major or Dissertation on minor (Compulsory)

Dissertation on Major/Minor Credits :6 Credits

Dissertation will be based on Primary/Secondary data.

Note: The student will have to undergo a Dissertation on Major/ Dissertation on Minor on any topic/problem relevant to Home Science, allotted by the concerned teacher and prepare a report of 60 to 100 pages, duly typed and binded

(A4 size paper having in Hindi/English with 1.5-line gap).

Semester IX

HSC/DSC/ FYUP /115: INDIAN EMBROIDERIES, DYEING AND PRINTING TECHNIQUES CREDIT: 04 (2+2)

Learning outcomes

- Recognize and identify embroidered fabrics of different states in terms of stitches and designs
- Discuss sustenance of traditional textile crafts and Analyze the textile arts in their historical perspective
- Student will be able to understand the application of different embroidery to techniques
- Students will be able to develop utility articles with the help of basic embroidery stitches
- Student will be able to understand about different type of dyes and dyeing methods

Unit I:

Historical background of traditional Indian embroidery
General embroidery techniques; Hand embroidery–
Knowledge of basic hand embroidery stitches
Study of traditional embroideries of India: Texture, design and colour,
Chikankari of Uttar Pradesh, Kantha of Bengal, Kasuti of Karnataka, Kutch Kathiawar of Gujarat, Phulkari of Punjab,
Sindhi embroidery, Kashida of Kashmir

Unit II:

Traditional Textiles of India: Texture, design and colour
Woven (in design)–Patola, brocade, baluchars , chanderi , paithani, pochampalli, ikat, maheshwari
Printed woven fabric– dacca muslin, tassar, kotadoris, Kashmir shawls
Printed–Sanganeri, kharhi print of Gujarat
Painted–kalamkari, madhubani
Resist dyed–bandhej of Gujarat and Rajasthan
Khadi: Significance–National and economic; Revolution in Khadi
Handloom: Definition, role in national economy and some chief handloom clothes of India

Unit III:

Dyes–Definition and classification of dyes
Different types of dyes: Natural dyes– Vegetable, animal and mineral; Synthetic dyes–direct, acid, basic, reactive, vat, sulphur, mordant, disperse, pigments. Suitability of various dyes to different fibres.

Unit IV:

Dyeing methods at different stages of processing– fiber, yarn, piece, union and cross
Colour fastness characteristics– washing, sunlight, crocking and perspiration
Domestic methods of dyeing

Unit V:

Printing–Significance, methods–block, stencil, screen, roller, Faults in printing, Advantages and disadvantages of different printing methods. Preparation of printing paste, use of various ingredients and thickeners. Preparation of cloth for printing.
After-treatment of printed goods.

References:

- Agarwal, O.P., 1977, Care and Presentation of Museum projects – II, NRL
- Barnard, N., Gillow, J., 1993, Indian Textiles, Thames and Hudson, USA
 - Chattopadhyaya, K.D., 1995, Handicrafts of India, Wiley Eastern Limited, N Delhi
 - Crill, R., 2015, The Fabric of India, Victorial and Albert Museum, UK
 - Das, Shukla, 1992, Fabric Art- Heritage of India, Abhinav Publications, N Delhi.
 - Grundy & Northedge, (1998) Standards in the Museum Care of Costume and Textile EC (1267) – 25.08.2023 4 Collections, Museums & Galleries Collection, Spin Offset Limited, Chapter 7-14, pg 35- 54
 - Mausumi Kar, (2015), The Indian Textile and Clothing Industry An Economic Analysis, Springer New Delhi Heidelberg New York Dordrecht London, Chapter 1& 2, pg 12-33.
 - Pandit Savitri, 1951, Indian Embroidery- Its Variegated Charm, Pandit Publisher, Baroda Embroidery tutorials,
video links of woven textiles and slide share
Vastra Rachna evam Chappai Takneek, Jain and Gupta, Shiva Prakashan, Indore

HSC/DSE/ FYUP116: COMMUNITY NUTRITION**CREDIT: 04 (3+1)****Course Outcomes**

This course will make student aware regarding various basic concept and knowledge about community nutrition

After the successful completion of the practical course, the student will be able to Apply their skills to assess the health status of individuals by using methods of nutritional assessment .

Unit1:**UNIT I: INTRODUCTION TO COMMUNITY NUTRITION** Community nutrition as a field:

Public health nutrition, goals of nutrition programme,
dietary guidelines,
present trends and focus on community nutrition

UNIT II: DIRECT NUTRITIONAL STATUS 2.1 Direct nutritional assessment of human groups:

Diet survey methods,
nutritional anthropometry,
clinical signs.
Biochemical methods

UNIT III: INDIRECT NUTRITIONAL STATUS

Vital statistics, indicators and their use;
Health policy indicators,
Social and economic indicators;
coverage by primary health care;
basic health status indicators

UnitIV:**NUTRITIONAL PROBLEM IN INDIA**

Magnitude of nutritional problems in India:
Protein energy malnutrition,
anemia,
Vitamin A deficiency,

Iodine deficiency disorder;
Over nutrition and chronic degenerative diseases.
Strategies for the control of
malnutrition.

UNIT V: FOOD CONSUMPTION PATTERN AND PDS

Food consumption pattern in different parts of India and food availability; Food balance sheets; Public distribution system; Food Corporation of India; Food production in India, Food security

UNIT VI: NUTRITION EDUCATION

Nutrition education- Definition, concept objectives ,methods and role of nutritional education, rationale, planning, execution and evaluation

Assessment of nutritional knowledge by informal discussion and by simple questionnaire and rapid rural appraisal (RRA).

References:

1. Bamji, M.S Rao, NP and Reddy V. 1996. Text book of Human Nutrition
2. Bagchi, K. 1990. Guidelines for the management of nutrition programmes- a manual for nutrition officers. WHO EMRO Technical Publication no. 15, WHO, Geneva
3. Bendich, A and Deckelbaum, RJ, 1997. Preventive Nutrition. The Comprehensive guide for health professional.

HSC/DSE/ FYUP 117:
CHILD WELFARE IN INDIA
CREDIT: 04

Course outcomes

The student will be able to develop an understanding of the welfare issues related to children in India. To create awareness among students about the Government programmes, policies and legal provisions as well as the Non- governmental efforts made to improve the status of the child.

Unit I: Child Welfare in India Concept and historical perspective, Need and relevance Historical evolution of Child welfare Rights of children; Protection of Child rights; Convention on the rights of the child in the Constitution of India

Unit II: Profile of child in India Demographic: Total population, Child population, Sex ratio, Infant Mortality Rate (IMR), Literacy, School enrolment rate

Unit III: Children at Risk Children in especially difficult circumstances, Children in emergency Situation, Disabled child, destitute child, Street child, child labour

Social problems related to children – female foeticide (pre-birth and preconception elimination), Juvenile delinquency,
Child Labour - causes, prevention, Child Labour Prohibition and Regulation Act 1986.
Abuse and child marriage, discrimination against girl child

Unit IV: Policies and Legislations for Child Welfare
National Children's Board, The National Policy for the Child, The National Children's Fund, Child Labour Cell Child Labour Act; PC-PNDT Act; Child Marriage Act, The Children's Act, Juvenile Justice Act, Right to Education Act

Unit V: Child Welfare agencies and programmes in India International, national and local agencies – governmental and non-governmental (UNICEF, ICCW, NIPCCD, NCERT, ICSW Mobile Creches, Bal Bhwan)
Welfare programs –
ICDS, Mid-day Meal Programme, Universal Immunization Programme, etc

References:

1. Baig, T.A. (1979): Our Children. New Delhi: Ministry of Information and Broadcasting, Govt. of India
2. Chowdhry, D.P. (1980): Child Welfare and Development. Delhi: Atma Ram
- An analysis of the situation of children in India, United Nations Children's fund Regional Office for South Central Asia. New Delhi (1984).
3. CSWB – Juvenile delinquency in India, Children's aid Society
4. Encyclopaedia of Social work in India. Volumes, Director, Publication Division, Ministry of Information and Broadcasting, India Planning Commission, Delhi 6.
5. Guilford R. :(1971)Special Educational Needs, Routledge and Kegan Press, London 6. Joan Laird and Ann Hartman. – Editor's handbook of Child welfare. The free Press, A division of Macmillan Inc. New York. Collier Macmillan Publishers London
7. Kadushin Alfred. :(1967).Child Welfare Services. Macmillan Co. New York,
8. Kirk Samuel A. :(1970). Educating exceptional Children. Oxford and IBH Publishing Company, India Ed.
9. Mehta D.S. –(1983)Handbook of disabled in India. Delhi Allied Publishers, National Children's Policy, Social welfare ministry Government of India.
10. Profile of Indian child Ministry of social welfare Govt. of India.
11. Sen A. (1971)Introducing voluntary Agencies in India. Indian Art Press, New Delhi., 12. Sheth Hansa. : Delinquent child, Popular Book Depot. Bombay.

HSC/DSE/ FYUP 118: HUMAN PHYSIOLOGY

CREDIT: 04 (3+1)

Course outcomes

The students will be able to understanding how the human body functions, including the structure and function of major organ systems, their interactions, and how they maintain homeostasis. Students will also develop the ability to apply this knowledge to understand normal physiological processes and disease states

Unit I Cell Physiology: Cell structure, types function and organelles ; Cell membranes and transport mechanisms.

Unit II

Cardiovascular system- Structure and function of the heart, cardiac cycle, cardiac output, heart sounds, regulation of heart rate, blood pressure: Factors affecting it and hypertension. Composition and functions of blood and lymph, heart and course of blood circulation, blood pressure, pulse and heart sounds

Unit III Physiology of digestion, digestive enzymes and their function, function of liver, absorption from the intestine

Unit IV Respiratory apparatus, mechanism of respiration, respiratory rates, volume and transport of gases

Musculo-skeletal system- Structure and function of bone, cartilage and connective tissue. Disorders of the skeletal system, types of muscles, structure and function.

Unit V Excretory System- Structure and function of nephron, mechanism of urine formation and the role of the kidneys in water and electrolyte balance, diuretics, renal stone, albuminuria, haematuria, oedema, uremia.; the skin and its functions

Unit VI The location, secretion and functions of various endocrine glands, Physiology of male reproduction: hormonal control of spermatogenesis; Physiology of female reproduction: hormonal control of menstrual cycle, pregnancy parturition and, milk secretion

REFERENCES

1. Arhur J. Banders; Human Physiology- The mechanisms of body function, Tata Mc Grawaw-Hill Publishing
2. C. Guyton; Text book of Medical Physiology Vth edition, W.B. Sanders company- Philadelphia, London.

PRACTICAL 3 (HSC/DSC/ FYUP 119):

(2+1+1)

Practical aspects of Indian embroideries, Nutritional Assessment and Human Physiology

Practical based on DSC 115, DSE 116, and DSE 118

CREDIT:

(1 to 5 Practical based on DSC 115)

1. Construction of articles using different types of printing and dyeing techniques
2. Sample preparation of traditional Indian embroideries and machine embroideries
3. Preparation of two articles using different hand embroideries
4. Preparation of articles using machine embroideries (patch work, applique, braiding, smocking, beading and sequins)
5. Documentation of Indian textile and costumes.

(6 to 9 Practical based on DSE 116)

- 6 Familiarize students with methods of assessment of nutritional status
- 7 Conduct single person case study to assess and evaluate nutritional status or carry out a survey using anthropometric measurements.
- 8 BMI calculation
- 9 Nutritional assessments through clinical survey for various deficiency diseases

(10 to 13 Practical based on DSE 118)

10. Drawing labeled diagrams of human digestive system, cardiovascular system, excretory system,

Reproductive systems

11. Body temperature recording using digital thermometer
12. Measuring and recording pulse rate and blood pressure by using digital measurement options
- 13 Taste buds mapping - to map areas of tongue for various taste

HSC/GE/ FYUP 120: Psychological Testing and Measurement

(Credits: 4)

Course outcomes

Students will gain knowledge about different types of psychological tests and their applications

Students will develop the ability to interpret test results, understand the meaning of scores, and draw meaningful conclusions

Unit I:

Introduction to psychological testing: Need, Meaning, objectives, uses and design Difference

between testing and measurement Criteria of a good physiological test; reliability, validity and standardization

Unit II:

Measurement of intelligence and creativity intelligence: Meaning, types of intelligence tests; some standardized intelligence tests

Unit III:

Measurement of aptitude and attitude aptitude: Meaning, Types of Aptitude test attitude Meaning, attitude scales

Unit IV:

Assessment of personality Behavioral methods of personality assessment personality inventories projective techniques

References:

1. Adhunik Manovaigyanik Prikshan evam Maapan , Mahesh Bhargava, H. P. Bhargava Book House , Agra
2. Psychological Testing, Urbina Anastasi

HSC/DE/ FYUP 121: Dissertation

CREDIT: 06 (0+2+4)

Dissertation on major or Dissertation on minor (Compulsory)

Dissertation on Major/Minor Credits :6 Credits

Dissertation will be based on Primary/Secondary data.

Note: The student will have to undergo a Dissertation on Major/ Dissertation on Minor on any topic/problem relevant to Home Science, allotted by the concerned teacher and prepare a report of 60 to 100 pages, duly typed and binded

(A4 size paper having in Hindi/English with 1.5-line gap).

Semester X

HSC/DSC/ FYUP 122: HOUSING NEEDS AND SPACE PLANNING IN INTERIOR DECORATION

CREDIT: 04 (3+1)

Course outcomes

Student will be able to understand housing demand in India

Understanding and applying principles of design (balance, rhythm, proportion, etc.) and elements of design (line, shape, color, texture, etc.) to create visually appealing and harmonious spaces.

Unit I Factors affecting housing needs and demand in India population, income, occupation, family mobility and technological development. Solving India's housing problems, needs obstacles setting goals, standards, role of central and state Government and local housing agencies, rent control policies housing schemes.

Units II Introduction to interior decoration, importance of interior planning and decoration, planning principles for specific areas.

Unit III Element and principles of design and their application in interiors, principles of Harmony, proportion, balance and rhythm, application of elements and principles of design in interior planning and decoration.

UNIT IV Developing House plans for different income groups

Characteristics of different rooms.

Planning for background areas and their treatment, floors walls ceilings and their structural characteristics, finishes and techniques of preparation and decoration.

Units V(a) kitchen- Definition, need, important arrangement of kitchen work area and types of kitchens.

Building material- Cement, Sand, POP etc

Different types of flooring

False ceiling, wall lining and partition

Paint, vanishes, Distemper.

Concept of air-conditioning

Units V Furniture arrangement, types of furniture and selection criteria, window treatment, types of windows and its parts, functional and decorative treatment, Light sources and colour scheme, Developing light plans for different areas, Functional and decorative accessories for interiors.

References

1. Drothy Stepat- Devan and Others- Introduction to interior Design, N.Y. Macmillan 1980.
2. Mike Lawrence: The Complete interior Decorator U.K. Macdanald, 1986.
3. Faulker and Faulker, inside today's home, N.Y. Holt Rinehart and Winston, 1975

HSC/DSE/ FYUP 123: HUMAN NUTRITION AND DIET THERAPY (CREDIT: 04) (3+1)

Course outcomes

Students will be able to understand nutrient functions, dietary planning for various needs, and the role of nutrition in disease management and prevention

Students will learn to assess nutritional status through various methods

Unit I Nutrients in foods: their functions, requirements and sources digestion absorption and utilization of nutrients. Effect of low and excess intake of nutrients on human body, Energy Requirement, BMR, Water, its functions, sources and routes of excretion, recommended dietary allowances, Food exchange lists, basic food groups

Unit II Diet therapy: History of dietetics, effect if illness on food acceptance and utilization, role of dietician, taking patients history, feeding the patient, education of patient and dietetic counseling.

Unit III Therapeutic modifications of normal diet,

Routine hospital diets- (regular, light, soft and fluid)

Different types of feeding methods

Principles involved in menu planning, importance of meal planning, technique of writing menus, underlying factors which should be considered before planning meals

Unit IV Causes, (risk factors), symptoms and principles of diet management of

- Fevers (Long and short duration), infections (HIV/AIDS)
- Gastro-intestinal disorders- Diarrhea, constipation, Peptic ulcer, gastritis etc.
- Jaundice, hepatitis, cirrhosis, fatty liver and infantile cirrhosis
- Cardiovascular diseases, hyper lipidemia, hypertension, congestive heart failure
- Nephritis (acute and chronic) renal stone, gout, arthritis
- Diabetes mellitus, obesity and underweight (PCM)
- Diet in surgery, fractures, burns injury,
- Diet in allergy
- Nutrition in cancer- Dietary guidelines, feeding problems and management

References:

1. A Text book of food and nutrition by M. Swami Nathan, Ganesh Publishers, Bo1 I & II.
2. Clinical Dietetics and Nutrition by F.P. Antia, Oxford University Press. New Delhi, London & New York
3. Human Nutrition and Diets by S. Deevidoon, R. Pasamore, J.F. Brock and A.S. Truwell, Churchill and Livingstone.
4. Modern Nutrition in Health & Disease, Yong & ShailsNormel & Therapeutic Nutrition by F.T. Proud fit & C.H. Robinson.

HSC/DSE/ FYUP 124 CHILDREN WITH SPECIAL NEEDS
CREDIT: 04 (3+1)

Course outcomes

Students will be informed about the characteristics of children with special needs; will be aware of the role of parents and teachers in educating children with special needs

Unit I

Children with special needs: Definition, characteristics, classification according to types of impairment
Special education for children with special needs
Definition and models of disability
Demography of children with disabilities

Unit II:

Mental retardation: definition and levels, causes, identification, educational provisions
Gifted and creative children: definition, characteristics, special needs, identification and Educational provisions

Unit III:

Visually handicapped children: Classification, identification and educational provisions
Hearing impaired: Classification, identification, causes and educational provisions

Unit IV:

Children with orthopedic impairments: Definition, classification, causes, educational provisions and rehabilitation
Children with behavior disorders: autism and aggressive behavior

UNIT V:

Children with Disabilities and Society
Families of children with disability
Prevention and management of different disabilities
Educational practices- Special education and inclusion
Policy and laws

References:

1. Bhargava M. (1994)–Introduction to Exceptional Children, Sterling Publishers, New Delhi.
2. Kar Chintamani (1996)– Exceptional Children: Their Psychology and Education, Sterling Publishers, New Delhi.
- 3.Sahu B.K. (1993)–Education of the Exceptional Children, Kalyani Publishers, New Delhi.
- 4.Vishisht Avashyakta wale bacchon ki shiksha tatha nirdeshan evam paramarsh, Vinay Rishivar, Agarwal Publications
5. VishishtBalak, Abha Rani Bisht and Swati Saxena, Agarwal Publications
6. Vishesh Avakshyataonwaale Bacche Part I and II, DECE-3, Bacchonke liye sewaye nevam karyakram IGNOU
7. VishishtBaalak– Shiksha evam Punarwaas, Mahesh Bhargava, H.P. Bhargava BookHouse, Agra

HSC/DSE/ FYUP 125 FASHION: DESIGN AND DEVELOPMENT (CREDIT: 04) (3+1)

Course outcomes

Outcomes include understanding fashion trends and fashion business
Students will be able to Understand the Fashion Industry

Unit I: Nature and Business of Fashion

- Fashion terminology
- Importance of Fashion
- Principles of Fashion; Fashion cycle
- Source of inspiration for apparel designing, fashion and current fashion trends
- Study of costume designing and flat pattern making
- Principles of pattern making and rules in costume designing

Business of Fashion

- Designer's role, Manufacturer's role, Retailer's role

Unit II: Fashion Forecasting

- Market research
- Forecasting services and resources; Process of Forecasting
-

Unit III: Product and Line Development

- Process of Product and Design Development

- Line Development
- Organizing the Line

Unit IV: Apparel Categories

- Fabrics for apparel
- Clothing categories
- Size ranges and price points

References

Fringes, G.S. (1999), Fashion from Concept to Consumer, 6th edition, NJ, Prentice Hall.

Keiser, S.J., and Garner, M.B., (2008), The Synergy of Apparel Product Development, II Edition, Fairchild Publications, USA.

Stone, E., (2008), The Dynamics of Fashion, III Edition, Fairchild Books, China.

Kim, E., Fiore, A.M., Kim, H., 2011, Fashion trend analysis and forecasting, published by Berg, 49-51 Bed

PRACTICAL 4 (HSC/DSC/ FYUP 126):- Interior Decoration, Therapeutic Nutrition, children with special needs and fashion designing- practical aspects

CREDIT: 04

(1 to 6 based on DSC 122) (1+1+1+1)

1. Drawing house plans with standard specifications
2. Furniture layout of living room, dining room, kitchen and bedroom.
3. Planning color schemes of different rooms for different activities.
4. Development of design of curtains, cushions, carpet, and table mats.
6. Preparing drawings for different interior spaces.
 - a. Arrangement of walls
 - b. Arrangement of floors
 - c. Ceiling arrangements

(7 to 9 based on DSE 123)

7. Planning of therapeutic diets – normal diet, soft diet, clear fluid diet, full fluid diet
8. Develop a questionnaire regarding basic information of patient for dietary management
9. Planning and preparation of diet during normal and various diseased conditions

(10 to 13 based on DSE 124)

10. Profiling - Conducting in depth observation and profiling a child with special need, Utilizing checklists and observation tools to identify functional, academic, and behavioral strengths and weaknesses of a child with special needs
11. Case studies- Conducting in –depth observation analyzing a child’s case, creating an intervention plan and report writing.
12. Developing teaching material for children with special needs - Creating low cost, safe and stimulating age appropriate play materials, Formulating Educational games - Activity based learning - Sensory aids Toys and puzzles., Planning Activities that aid fine and gross motor skill development
13. Visit to special schools and report writing

(14 to 17 based on DSE 125)

14. Sketching
 - a. Figure drawings with different elevation
 - b. Designing of various yokes and accessories
15. Designing and styling with application of principles of pattern making (moving, dividing and combining darts)
16. Adding fullness in blouse by gathers and darts
17. Construction of different types of yokes, collars and skirts

HSC/GE/ FYUP 127 SUSTAINABLE FASHION

Credit : 04

Course Outcomes

1. The student will be able to gain knowledge of issues and challenges related to over consumption and non-sustainable fashion.
2. The student will be able to learn to choose garment consciously and become informed consumer
3. The student will be able to using green laundry practices to help environment
4. The student will be able to enhance life cycle of garments for less waste generation

Unit I:

Fashion & Sustainability

Learning aspects of sustainability in relation to fashion and textiles

Basics of sustainability

The Fashion Business & sustainability issues

Ethical & sustainable fashion in the changing global scenario

Circular fashion

Start-ups and big brands dealing with sustainability

Measuring sustainability – How brands do it

Unit II:

Green Consumption

Factors that should be kept in mind while selecting and purchasing apparel

Volumes of textile waste: Over consumption challenges

Fashion based on values

Locally made, globally relevant

Local and connected: Designing with local artisans

Reducing the speed in fashion consumption: Slow fashion, Durability, Appropriateness, Multifunctional garments, Trans-seasonal garments, emotionally durable design

Standards, labels and organisations dealing with sustainable textiles and apparel

Unit III:

Ethical care and Maintenance

Green practices for laundry and care of apparel.

Laundering frequency: Reducing consumers' need to clean Laundry detergents and softeners: Effectiveness and environmental concerns

Machine vs line drying: Energy costs vs consumer needs

Special care laundry: Environmental impacts and changing consumer demands

More efficient laundering practices

Designing sustainable clothing that enables: low-impact care, extended use

Unit IV:

Intelligent Disposal

Ways to increase the life of garments to reduce waste generation. Slowing the flow of materials

Take-back schemes

Waste management strategies: Reuse of goods, repair and reconditioning of goods, recycling of goods, zero waste pattern

Collaborative consumption: Sharing, pass me down, give away

Vintage Clothing: The world of second-hand clothing

Traditional Practices in Indian culture leading to sustainable consumption

References

1. Fletcher, K., & Grose, L. (2012). *Fashion & sustainability: Design for change*. Hachette UK
2. Fletcher, K. (2013). *Sustainable fashion and textiles: design journeys*. Routledge.
3. Gwilt, A., & Rissanen, T. (2012). *Shaping sustainable fashion: Changing the way we make and use clothes*. Routledge.
4. Jacques, P. (2020). *Sustainability: the basics*. Routledge.
5. Gardetti, M.A., & Torres, A.L. (Eds.). (2013). *Sustainability in Fashion and Textiles: Values, Design, Production and Consumption* (1st ed.). Routledge.
6. Pratibhan, M. Ed. (2017); *Sustainability in Fashion & Apparels (Challenges & Solutions)*; Woodhead Publishing

HSC/DE/ FYUP 128:
Dissertation Credit- 6 (0+2+4)

Dissertation on major or Dissertation on minor (Compulsory)

Dissertation on Major/Minor Credits :6 Credits

Dissertation will be based on Primary/Secondary data.

Note: The student will have to undergo a Dissertation on Major/ Dissertation on Minor on any topic/problem relevant to Home Science, allotted by the concerned teacher and prepare a report of 60 to 100 pages, duly typed and binded

(A4 size paper having in Hindi/English with 1.5-line gap).