

B.Sc. (Hons) Home Science Choice Based Credit System

B.SC. (HONS) HOME SCIENCE

Semester	Course Opted	Course Name	Credits
I	Ability Enhancement Compulsory Course - I	English Communications/ Environmental Science	4
	CC-1 Theory	Human Development I: The Childhood Years	4
	CC -1 Practical	Human Development I: The Childhood Years Practical	2
	CC -2 Theory	Food and Nutrition	4
	CC -2 Practical	Food and Nutrition Practical	2
	CC -3 Theory	Fashion Design Concepts	4
	CC-3 Practical	Fashion Design Concepts Practical	2
II	Ability Enhancement Compulsory Course -II	English Communications/ Environmental Science	4
	CC-4 Theory	Dynamics of Communication and Extension	4
	CC-4 Practical	Dynamics of Communication and Extension Practical	2
	CC-5 Theory	Resource Management	4
	CC-5 Practical	Resource Management Practical	2
	CC-6 Theory	Life Sciences	4
	CC-6 Practical	Life Sciences Practical	2
III	CC-7 Theory	Physical Sciences	4
	CC-7 Practical	Physical Sciences Practical	2
	CC-8 Theory	Communication Systems and Mass Media	4
	CC-8 Practical	Communication Systems and Mass Media Practical	2
	CC-9 Theory	Personal Finance and Consumer Studies	4
	CC-9 Practical	Personal Finance and Consumer Studies Practical	2
	SEC-1	SEC-1	4
	GE -1 Theory	GE -1 Theory	4
	GE – 1 Practical	GE – 1 Practical	2
IV	CC-10Theory	Human Development II: Development in Adolescence and Adulthood	4
	CC-10 Practical	Human Development II: Development in Adolescence and Adulthood Practical	2
	CC-11 Theory	Nutrition: A Life Cycle Approach	4
	CC-11 Practical	Nutrition: A Life Cycle Approach Practical	2
	CC-12 Theory	Introduction to Textiles	4
	CC-12 Practical	Introduction to Textiles Practical	2
	SEC-2	SEC-2	4
	GE -2 Theory	GE -2 Theory	4
	GE – 2 Practical	GE – 2 Practical	2

V	CC-13 Theory	Research Methodology in Home Science	4
	CC-13 Practical	Research Methodology in Home Science Practical	2
	GE - 3 Theory	GE - 3 Theory	4
	GE – 3 Practical	GE – 3 Practical	2
	DSE -1 Theory	DSE -1 Theory	4
	DSE -1 Practical	DSE -1 Practical	2
	DSE -2 Theory	DSE -2 Theory	4
	DSE -2 Practical	DSE -2 Practical	2
VI	CC-14 Theory	Socio Economic Environment	4
	CC-14 Practical	Socio Economic Environment Practical	2
	GE - 4 Theory	GE - 4 Theory	4
	GE – 4 Practical	GE – 4 Practical	2
	DSE -3 Theory	DSE -3 Theory	4
	DSE -3 Practical	DSE -3 Practical	2
	DSE -4 Theory	DSE -4 Theory	4
	DSE -4 Practical	DSE -4 Practical	2
		Total	148

***Any 4 DSE, 2 SEC AND 4 GE to be picked up by the student from the pool.**

The objectives of the B.Sc. (Hons.) Home Science course are:

- To understand and appreciate the role of interdisciplinary sciences in the development and well-being of individuals, families and communities
- To learn about the sciences and technologies that enhance quality of life of the people
- To acquire professional and entrepreneurial skills for economic empowerment of the student in particular, and community in general
- To develop professional skills in food, nutrition, textiles, housing, product making, communication technologies and human development
- To take science from the laboratory to the people

CORE COURSE (14)	Ability Enhancement Compulsory Course (AECC) (2)	Skill Enhancement Course (SEC) (2)	Elective: Discipline Specific (4) DSE	Elective: Generic (GE) (4)
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I	CC 1: Human Development I: The Childhood Years	English/ EVS			
	CC 2: Food and Nutrition				
	CC3: Fashion Design Concepts				
II	CC 4: Dynamics of Communication and Extension	English/ EVS			
	CC 5: Resource Management				
	CC 6: Life Sciences				
III	CC 7: Physical Sciences				
	CC 8: Communication Systems and Mass Media		SEC 1		GE1
	CC 9: Personal Finance and Consumer Studies				
IV	CC 10: Human Development II: Development in Adolescence and Adulthood		SEC 2		GE 2
	CC 11: Nutrition: A Life Cycle Approach				
	CC 12: Introduction to Textiles				
V	CC 13: Research				

	Methodology in Home Science			DSE 1	GE 3
				DSE 2	
VI	CC14: Socio Economic Environment			DSE 3	GE 4
				DSE 4	

CORE COURSES (14 Courses) Total Credits – 84

(6 Credits each Theory 4 credits + Practical 2 credits =6)

CC 1: Human Development I: The Childhood Years Theory 4 credits + Practical 2 credits

CC 2: Food and Nutrition Theory 4 credits + Practical 2 credits

CC 3: Fashion Design Concepts Theory 4 credits + Practical 2 credits

CC 4: Dynamics of Communication and Extension Theory 4 credits + Practical 2 credits

CC 5: Resource Management Theory 4 credits + Practical 2 credits

CC 6: Life Sciences Theory 4 credits + Practical 2 credits

CC7: Physical Science Theory 4 credits + Practical 2 credits

CC8: Communication Systems and Mass Media Theory 4 credits + Practical 2 credits

CC 9: Personal Finance and Consumer Studies Theory 4 credits + Practical 2 credits

CC10: Human Development II: Development in Adolescence and Adulthood Theory 4 credits + Practical 2 credits

CC11: Nutrition: A Life Cycle Approach Theory 4 credits + Practical 2 credits

CC12: Introduction to Textiles Theory 4 credits + Practical 2 credits

CC13: Research Methodology in Home Science Theory 4 credits + Practical 2 credits

CC14: Socio Economic Environment Theory 4 credits + Practical 2 credits

DISCIPLINE SPECIFIC ELECTIVE (4 Courses) Total

Credits – 24 (6 Credits each –Theory 4 credits + Practical credits =6)

DSE 1: Food Science Theory 4 credits + Practical 2 credits

DSE 2: Nutritional Biochemistry Theory 4 credits + Practical 2 credits

DSE 3: Theories of Human Development Theory 4 credits + Practical 2 credits

DSE 4: Childhood in India Theory 4 credits + Practical 2 credits

DSE 5: Communication For Development: BCC Theory 4 credits + Practical 2 credits

DSE 6: Extension for Development Theory 4 credits + Practical 2 credits

DSE 7: Textile Processing Theory 4 credits + Practical 2 credits

DSE 8: Indian Textile Heritage Theory 4 credits + Practical 2 credits

DSE 9: Entrepreneurship Development and Enterprise Management Theory 4 credits + Practical 2 credits

DSE 10: Interior Design and Decoration Theory 4 credits + Practical 2 credits

DSE 11: Therapeutic Nutrition Theory 4 credits + Practical 2 credits

DSE 12: Public Nutrition Theory 4 credits + Practical 2 credits

DSE13: Child Rights and Gender Justice Theory 4 credits + Practical 2 credits

DSE 14: Childhood Disability and Social Action Theory 4 credits + Practical 2 credits

DSE 15: Gender, Media and Society Theory 4 credits + Practical 2 credits

DSE 16: Programme Design and Evaluation Theory 4 credits + Practical 2 credits

DSE 17: Apparel Marketing and Merchandising Theory 4 credits + Practical 2 credits

DSE 18: Apparel Production Theory 4 credits + Practical 2 credits

DSE 19: Ergonomic Design Theory 4 credits + Practical 2 credits

DSE 20: Human Resource Management Theory 4 credits + Practical 2 credits

DSE 21: Space Planning and Design Theory 4 credits + Practical 2 credits

DSE 22: Physiology and Promotive Health Theory 4 credits + Practical 2 credits

DSE 23: Advertising and Public Relation Theory 4 credits + Practical 2 credits

DSE 24: Non Formal, Adult and Life Long Education Theory 4 credits + Practical 2 credits

DSE 25: Basics of Interior Design and Hospitality Management Theory 4 credits + Practical 2 credits

DSE 26: Basics of Nutrition Epidemiology and Anthropology Theory 4 credits + Practical 2 credits

DSE 27: Commercial Clothing Theory 4 credits + Practical 2 credits

DSE 28: Pattern Making and Draping Theory 4 credits + practical 2 credits

SKILL ENHANCEMENT COURSES (2 Courses) Total Credits – 8

(4 Credits each-Theory 4 credits or Theory 2 credits + Practical 2 credit or Practical 4 Credits)

SEC 1: Home Based Catering Theory 4 credits

SEC 2: Maternal and Child Nutrition Theory 4 credits

SEC 3: Early Childhood Care and Development Practical 4 credits

SEC 4: Self Development and Well-Being Practical 4 credits

SEC 5: Training and Capacity Building Practical 4 credits

- SEC 6: Advertising and Social Marketing** Practical 4 credits
- SEC 7: Surface Ornamentation** Practical 4 credits
- SEC 8: CAD in Textiles and Apparel** Practical 4 credits
- SEC 9: Resources and Sustainable Development** Practical 4 credits
- SEC 10: Autocad and Spatial Planning** Practical 4 credits
- SEC 11: Understanding Psychology** Theory 4 credits
- SEC 12: Computer Applications in Communication and Media Design** Practical 4 credits
- SEC 13: Information Education and Communication Material for Development** Practical 4 credits
- SEC 14: House Keeping** Theory 4 credits
- SEC 15: Travel and Tourism** Theory 4 credits
- SEC 16: Nutrition Health Communication** Theory 4 credits
- SEC 17: Biophysics** Theory 4 credits
- SEC 18: Life Skills Education** Theory 4 credits
- SEC 19: Activities and Resources for Child Development – I** Practical 4 credits
- SEC 20: Activities and Resources for Child Development II**
Practical 4 credits
- SEC 21: Product Development in Textiles and Apparel** Practical 4 credits
- SEC 22: Image Styling** Practical 4 credits
- SEC 23: Fashion Illustration** Practical 4 credits
- SEC 24: NGO Management and CSR** Theory 4 credits

GENERIC ELECTIVES (4 Courses) (For other disciplines) Total Credits -24
(6 Credits each –Theory 4 credits + 2 Practical credits or Theory 4 credits + 2 Tutorial)

- GE 1: Human Nutrition** Theory 4 credits + 2 Practical credits
- GE 2: Nutrition A Lifespan Approach** Theory 4 credits + 2 Practical credits
- GE 3: Entrepreneurship for Small Catering Units** Theory 4 credits + 2 Practical credits
- GE 4: Current Concerns in Public Health Nutrition** Theory 4 credits + 2 Tutorial
- GE 5: Gender and Social Justice** Theory 4 credits + 2 Tutorial
- GE 6: Child Rights and Social Action** Theory 4 credits + 2 Tutorial
- GE 7: Care and Well-Being in Human Development** Theory 4 credits + 2 Practical credits
- GE 8: Adolescent Relationships** Theory 4 credits + 2
Practical credits
- GE 9: Media Culture and Society** Theory 4 credits + 2
Tutorial
- GE 10: Gender Media and Society** Theory 4 credits + 2 Tutorial

GE 11: Behavior Change Communication Theory 4 credits + 2 Practical credits
GE 12: Information and Communication Technologies for Development Theory 4 credits + 2 Practical credits
GE 13: Fashion Design and Development Theory 4 credits + 2 Practical credits
GE 14: Fashion Accessories Theory 4 credits + 2 Practical credits
GE 15: Textiles Care and Conservation Theory 4 credits + 2 Practical credits
GE 16: Appreciation of Textile Crafts Theory 4 credits + 2 Practical credits
GE 17: Entrepreneurship and Enterprise Management Theory 4 credits + 2 Practical credits
GE 18: Interior Design Theory 4 credits + 2 Practical credits
GE 19: Facilities and Service Management Theory 4 credits + 2 Tutorial
GE 20: Training and Development Theory 4 credits + 2 Tutorial

ABILITY ENHANCEMENT COMPULSORY COURSES (2 Courses) Total Credits - 8
(4 Credits each –Theory 4 credits)

AECC 1: Environmental Sciences Theory 4 credits

AECC 2: English Theory 4 credits

Total Credits 84 Core+ 24 DSC + 8 SEC+ 8 AECC+ 24 GE= 148

CORE COURSES

CORE COURSE 1: HUMAN DEVELOPMENT I: THE CHILDHOOD YEARS

(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Introduction to Human Development 15

- Definition, history and interdisciplinary nature of human development
- Scope of human development in contemporary society
- Domains, stages and contexts of development
- Principles of growth and development

Unit II: Prenatal Development, Birth and the Neonate 15

- Reproductive health
- Conception, pregnancy and birth
- Capacities and care of the new born

Unit III: Infancy and Preschool years 15

- Physical and motor development
- Social and emotional development
- Cognitive and language development
- Moral development

Unit IV: Middle Childhood years 15

- Physical and motor development
- Social and emotional development
- Cognitive and language development
- Moral development

PRACTICAL

1. Methods of child study and their uses, advantages and disadvantages **6**
 - Interview
 - Observation
 - Narratives
2. Audio and video sources of studying prenatal development, infancy, early childhood and middle childhood period **2**

3. Cultural practices related to pregnancy and infancy 2
4. Plan and develop activities to facilitate development in different domains. Preparation of material for parent children (poster, toys, flashcards, books, puppets, sensory aids Etc.) 6
5. Study the role of salient features in child's life- familial and non-familial across developmental domains 4
6. Survey of selected resources for family and children in the community and the market 1
7. Psychological Tests for children 6
8. Child care practices and techniques- nappy folding, types of clothes, hygiene of baby, hospital guidelines, practical in Lamaze methods, exercises, post- delivery etc 3

RECOMMENDED READINGS

- Bee. H. (1995). The Developing Child. Harper Collins.
- Berk, L. E. (2007). Development through the Lifespan. Delhi: Pearson Education.
- Rice. F. P. (1998). Human Development: A Lifespan Approach. New Jersey: Prentice Hall.
- Santrock, J. W. (2007). A Topical Approach to Life-span Development. New Delhi: Tata McGraw- Hill.
- Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient Black Swan.

CORE COURSE 2: FOOD AND NUTRITION
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Basic Concepts in Food and Nutrition

5

- Basic terms used in study of food and nutrition
- Understanding relationship between food, nutrition and health
- Functions of food-Physiological, psychological and social

Unit II: Nutrients

20

Functions, dietary sources and clinical manifestations of deficiency/ excess of the following nutrients:

- Energy, carbohydrates, lipids and proteins
- Fat soluble vitamins-A, D, E and K
- Water soluble vitamins – thiamin, riboflavin, niacin, pyridoxine, folate, vitamin B₁₂ and vitamin C
- Minerals – calcium, iron, zinc and iodine

Unit III: Methods of Cooking

5

- Dry, moist, frying and microwave cooking
- Advantages, disadvantages and the effect of various methods of cooking on foods

Unit IV: Food Groups

25

- Structure, composition, products, nutritional contribution, selection and changes during cooking of the following food groups:
- Cereals
- Pulses
- Fruits and vegetables
- Milk and milk products
- Eggs
- Meat, poultry and fish
- Fats and oils
- Spices and herbs
- Beverages

Unit V: Nutrient losses in cooking and enhancing the nutritional quality of foods-

- Supplementation, germination, fermentation, fortification and GM foods **5**

PRACTICAL

1. Weights and measures; preparing market order and table setting 2
2. Food preparation, understanding the principle involved, nutritional quality and portion size

28

- **Beverages:** Hot tea/coffee, milk shake/ lassi, fruit based beverages
- **Cereals:** Boiled rice, pulao, chapatti, parantha, puri, pastas
- **Pulses:** Whole, dehusked
- **Vegetables:** Green leafy vegetables, coloured vegetables, roots tubers, curries, dry preparations
- **Milk and milk products:** Kheer, custard
- **Meat, Fish and poultry preparations**
- **Egg preparations:** Boiled, poached, fried, scrambled, omelettes, egg pudding
- **Soups:** Broth, plain and cream soups
- **Baked products:** Biscuits/cookies, cream cakes, sponge cake preparations, tarts and pies
- **Snacks:** pakoras, cutlets, samosas, upma, poha, sandwiches
- **Salads:** salads and salad dressings.
- **Fermented products:** idli, dosa, appam, batura, kulcha, dhokla

RECOMMENDED READINGS

- Bamji MS, Krishnaswamy K, Brahmam GNV (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
- Srilakshmi (2007). Food Science, 4th Edition. New Age International Ltd.
- Wardlaw and Insel MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition. Mosby.
- Chadha R and Mathur P (eds). Nutrition: A Lifecycle Approach. Orient Blackswan, New Delhi. 2015
- Khanna K, Gupta S, Seth R, Mahna R, Rekhi T (2004). *The Art and Science of Cooking: A Practical Manual*, Revised Edition. Elite Publishing House Pvt Ltd.
- Raina U, Kashyap S, Narula V, Thomas S, Suvira, Vir S, Chopra S (2010). Basic Food Preparation: A Complete Manual, Fourth Edition. Orient Black Swan Ltd.

CORE COURSE 3: FASHION DESIGN CONCEPTS
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Fashion

16

- Terminology
- Fashion cycle
- Sources of fashion
- Factors favouring and retarding fashion
- Role of a designer
- Leading fashion centres and designers

Unit II: Importance of Clothing

16

- Clothing functions and theories of origin
- Clothing terminology
- Individuality and conformity, conspicuous consumption and emulation
- Selection of clothes for self
- Selection and Evaluation of ready-made garments

Unit III: Components of Garment: Classification and Application

20

- Fabric, seams, stitches, thread, shaping methods, dart equivalents
- Sleeves, cuffs, necklines, collars, plackets, yokes, pockets and trims
- Style variation: bodice, skirts, trousers in various silhouettes

Unit IV: Design

8

- Elements and principles of design
- Structural and applied design
- Study of collections of famous designers

PRACTICAL

1. Flat sketching and Identification of garment components **6**
2. Interpretation of elements and principles of design concepts from print and visual mediums **6**
3. Child's "A" Line Dress **6**
4. Basic Blocks for Adults according to fashion trends and stitching any two garments- **12**
 - a) Kameez/kurtis/dress/sari blouse
 - b) Salwar/pants/chudidhar/pyjamas

RECOMMENDED READINGS:

- Brown, Patty, Rice J., 1998, Ready to Wear Apparel Analysis. Prentice Hall.
- Marshall S G, Jackson H O, Stanley MS, Kefgen M & Specht T, 2009, Individuality in Clothing & Personal Appearance, 6th Edition, Pearson Education, USA.
- Tate S.L., Edwards M.S., 1982, The Complete Book of Fashion Design, Harper and Row Publication New York

**CORE COURSE 4: DYNAMICS OF COMMUNICATION AND EXTENSION
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY

LECTURES 60

Unit I: Communication: Concepts

18

- Historical background, concept and nature
- Functions of communication
- Types of communication - communication transactions; formal and informal communication; verbal and non-verbal communication
- Scope of communication- education, training and learning industry, motivation and management, corporate communication, management of organisations, advertising and public relations
- Communication and mainstream media- newspaper, radio, television and cinema, ICTs and web based communication
- Communication for social change

Unit II: Understanding Human Communication

20

- Culture and communication- signs, symbols and codes in communication
- Postulates/principles of communication
- Elements of communication and their characteristics
- Models of communication
- Barriers to communication

Unit III: Communicating Effectively

8

Concept, nature and relevance to communication process:

- Empathy
- Persuasion
- Perception
- Listening

Unit IV: Communication for Extension

14

- Concept, nature and philosophy of extension
- Principles of extension
- Methods and media of community outreach; audio-visual aids- concept, classification, characteristics and scope.
- Relationship between, communication, extension and development

PRACTICAL

- | | |
|--|-----------|
| 1. Developing skills in planning and conducting small group communication. | 6 |
| 2. Review of media on selected issues | 6 |
| 3. Design and use of graphic media | 18 |

RECOMMENDED READINGS

- Barker, L. (1990). "Communication", New Jersey: Prentice Hall, Inc; 171.
- Devito, J. (1998) Human Communication. New York: Harper & Row.
- Patri and Patri (2002); Essentials of Communication. Greenspan Publications

**CORE COURSE 5: RESOURCE MANAGEMENT
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY

LECTURES: 60

Unit I: Introduction to Resource Management

18

- Concept, universality and scope of management
- Approaches to management
- Ethics in management
- Motivation theory

Unit II: Resources

20

- Understanding meaning, classification and characteristics of resources, factors affecting utilization of resources.
- Maximizing use of resources and resource conservation.
- Availability and management of specific resources by an individual/ family
 - Money
 - Time
 - Energy
 - Space
- Application of management process in:
Event planning and execution

Unit III: Functions of Management: An overview

22

- Decision Making
- Planning
- Supervising
- Controlling
- Organizing
- Evaluation

PRACTICAL

1. Resource conservation and optimization/green technologies (natural resources): Portfolio 6
2. Identification and development of self as a resource. 6
 - SWOT analysis-who am I and micro lab
 - Building decision-making abilities through management games

3. Preparation of time plans for self and family	4
4. Time and motion study	4
5. Event planning ,management and evaluation-with reference to	10
– Managerial process	
– Resource optimization - time, money, products, space, human capital	

RECOMMENDED READINGS

- Koontz.H. and O'Donnel C., 2005, Management – A Systems and Contingency Analysis of Managerial Functions. New York: McGraw-Hill Book Company
- Kreitner. 2009, Management Theory and Applications, Cengage Learning: India
- Rao V.S. and Narayana P.S., Principles and Practices of Management, 2007, Konark Publishers Pvt. Ltd.

**CORE COURSE 6 : LIFE SCIENCES
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY

LECTURES: 60

SECTION A - BOTANY

Unit I: Introduction to Plant Kingdom **7**

- Classification of Plant Kingdom
- Angiospermic plants (flower with details of its parts)
- Formation of fruit, seed and embryo
- Structure of monocot and dicot seed and seed germination

UNIT II: Propagation of Plants – Seed and Vegetative **8**

- Seed propagation
- Cuttings – stem, leaf and root
- Layering
- Grafting

Unit III: Types of Garden **7**

- Ornamental garden
- Kitchen garden
- Herbal garden

Unit IV: Economic Botany **6**

- Vegetables-cauliflower, carrot, tomato, potato, onion, spinach, gourds, fenugreek
- Fruits-papaya, mango
- Spices and Condiments-clove , pepper, cardamom, cumin, coriander, asafetida
- Ornamental and foliage plants-rose, bougainvillea, china rose, fern, asparagus

Unit V: Biotechnological Applications **2**

- Application of biotechnology in agricultural crops.

SECTION B- ZOOLOGY

Unit I **8**

- Classification of animal kingdom
- Chordates up to 5 major classes, characteristics with examples
- Non chordates up to phyla, characteristics with examples
- Cell theory, electron microscopic structure and function of a cell

Unit II	8
<ul style="list-style-type: none"> • Parasites and human diseases • Plasmodium, Giardia, Entamoeba, Taenia, Ascaris etc • Economics importance and control of common household pests • Insects as a resource 	
Unit III	6
<ul style="list-style-type: none"> • Introduction to Biotechnology • Significance of biotechnology to humans • Recent trends in biotechnology 	
Unit IV	6
<ul style="list-style-type: none"> • Basics of genetics • Genetic disease and sex linked inheritance • Importance of genetic counseling 	
Unit V	2
<ul style="list-style-type: none"> • Vermicompositing • Technology, importance and its relevance • How to start a unit at home • Maintenance and propagation 	
PRACTICAL	
SECTION A- BOTANY	15
<ul style="list-style-type: none"> • Floral description of few angiospermic families • Propagation of plants by seed and vegetative methods • Identification and classification of economically important plants 	
SECTION B- ZOOLOGY	15
<ul style="list-style-type: none"> • Survey of animal kingdom (2-3 specimens from each class/ phylum) • Study of cells – neurons, blood cells, cheek cells • Vermi composting 	

RECOMMENDED READINGS :

1. Chadha K.L.2012. Handbook of Horticulture. ICAR Publication.
2. Gopalaswami Ianger K.S. 1991, Complete Gardening in India, Messers Nagaraj and Co. Madras
3. Hartman H.T and Kester D 1986. Plant Propagation, Principles and Practices Prentice Hall of India Pvt. Ltd. New Delhi.

4. Raven P. and Johnson G. 2010. Biology. McGraw Hill Science.
5. Soni N.K. and Soni V. 2010. Fundamentals of Botany. Tata McGraw Hill Education.
6. Jordan and Verma, 1998, Invertebrate Zoology, S. Chand and Co. Ltd
7. Kotpal, 2000, Modern Textbook of Zoology, Rastogi Publications
8. Winchester, A.M. 1967, Genetics, Oxford and IBH Publishing Company
9. Vij and Gupta (2011) Applied Zoology Phoenix Publishing House

CORE COURSE 7: PHYSICAL SCIENCE

(CREDITS: THEORY-4, PRACTICAL-2)**THEORY****LECTURES: 60****SECTION A –CHEMISTRY****Unit I: Carbohydrates 10**

Classification, Monosaccharides – Fischer’s structure of aldoses and ketoses, ring structure of sugars, anomers and epimers, oxidation of sugars, reduction of sugars, reducing properties of sugars, formation of disaccharides, reducing and non-reducing disaccharides, polysaccharides – homo and heteropolysaccharides.

Unit II: Lipids 4

Building blocks of lipids – fatty acids, glycerol; storage lipids – triacyl glycerol, glycerophospholipids

Unit III :Amino acids 6

Structure and classification, peptide linkage, zwitter ion, Ninhydrin test, Sangers test ; Protein structure – Levels of organization – primary, secondary, tertiary and quaternary structure; Denaturation of proteins. Enzyme and concept of Lock and Key and Induced Fit Theory.

Unit IV: Polymers/Plastics 5

Synthetic resins and plastics, classification of polymers, general properties of polymers, structure of PE,PP,PVC,PS, Nylon 6, Nylon 66, PTFE, PET and their uses; from monomer to plastic, polymer requirements for polymer formation; biodegradable polymers.

Unit V: Dyes 5

Classification, colour and constitution, auxochromes, chromophores; chemistry of dyeing; structure and applications of: Azo dyes – Methyl Orange, Triphenyl Methane Dyes - Malachite Green, Rosaniline and Crystal Violet; Phthalein Dyes – Phenolphthalein and Fluorescein; Natural dyes –Alizarin and Indigotin; Edible Dyes with examples.

SECTION B- PHYSICS**Unit VI: House hold Equipment and Consumer Awareness 8**

- Motorized Equipment: vacuum cleaners, clothes washing machine, dish washers, food processors, electric chimney.

- Heating appliance: electric irons, electric water heaters, gas and electric cooking ranges, gas meter, temperature control in household gadgets – various types of thermostats, solar energy and its applications.
- Cooling appliance : refrigeration and air conditioning, various types of refrigerators, air conditioners and air coolers, basic knowledge of ducting.
- Guarantee and warranty of all household equipment, precautions while using equipment and servicing of equipment used.

Unit VII : Electricity

6

- Generation and efficient transmission of electricity.
- Safety features in household electric wiring – fuse, MCB, earthing,
- Electric meter
- Concept – Battery charger, Inverter, UPS, voltage stabilizer.
- Lighting fixtures in the home – Incandescent lamp, Fluorescent tube, CFL, LED, halogen lamp.

Unit VIII: Sound and Light

5

- Knowledge of sound, echo and their uses.
- Recording and reproduction of sound – various methods.
- Lenses- convex and concave, focal length, aperture, aberrations
- Principle and working of camera.
- Elementary knowledge of Radio- AM and FM.

Unit IX Modern Physics and Electronics

7

- Semi- Conductors – concept of transistor and its applications
- Television – transmission and reception, concept of colour television.
- Geostationary satellites.
- Radioactivity – concept and application, nuclear energy.
- Concept of laser and its applications.

Unit X Biophysical Techniques

4

- Basic principles of electromagnetic radiation: energy, wavelength, wave numbers and frequency.
- Basic Knowledge of: X-Rays, Ultra sound and MRI.
- Harmful effect of radiations.

PRACTICAL

PART A - CHEMISTRY

- | | |
|--|---|
| 1. Volumetric Analysis | 5 |
| a. Acid base titration (Estimation of free alkali present in the given soap solution) | |
| b. Precipitation Titration (Estimate amount of salinity in a given solution using silver nitrate) | |
| c. Complexometric titration (Determination of hardness of water) | |
| 2. Qualitative tests for carbohydrates and preparation of derivative (Osazone)
Monosaccharides, disaccharides and polysaccharides | 7 |
| 3. Separation of mixture of amino acids using paper chromatography and determination of R_f values | 2 |
| 4. Preparation of methyl orange dye. | 1 |

PART B- PHYSICS

- | | |
|---|---|
| 1. To study the sensitivity of different measuring instruments and determine the thickness of a glass plate using (i). Vernier Calipers and (ii). Screw Gauge | 2 |
| 2. To study household electrical wiring and fix a bedside switch in the circuit. | 1 |
| 3. To repair and test an electric iron. | 1 |
| 4. To repair the given chord and fuse and test them. | 1 |
| 5. To determine the value of 'J' by electrical method. | 2 |
| 6. To electroplate the given metal article with a superior metal and determine the E.C.E. | 1 |
| 7. To determine the specific resistance of the material of a wire using P.O. Box. | 2 |
| 8. To determine the concentration of sugar in a sugar solution by using a Polari meter. | 1 |
| 9. To determine 'g' by bar pendulum. | 1 |
| 10. Characteristic curves of a transistor and determination of transistor constants. | 1 |
| 11. Refractive index of a liquid by traveling microscope. | 1 |
| 12. Focal length of a convex lens- displacement method. | 1 |

Demonstration experiments

1. To study the various sources of electricity and measure their e.m.f.'s.
2. To study the various sources of light and record their wattages.
3. To obtain a pure spectrum of various sources of light (Na and Hg) using a spectrometer.

RECOMMENDED READINGS

- Morrison, R. T. and Boyd, R. N., Organic Chemistry, (2001), 7th edition, Prentice Hall.
- Graham Solomon, T.W. Organic chemistry 10th Ed. (2009) John Wiley and sons, Inc.

- Voet, D and Voet, J., Principles of Biochemistry, 4th edition (2011) by John Wiley and Sons.
- Nelson, D.L. and Cox, M.M., Lehninger's Principles of Biochemistry, 6th edition, (2012) W.H. Freeman.
- P.C. Jain, Monika Jain, Engineering Chemistry, Dhanpat Rai Publications (1979)
- Berg, J. M, Tymoczko, J.L. and Stryer, L. (2012). Biochemistry 7th Ed., W. H. Freeman
- Household Physics (2012), Claude H. Brechner, Hardpress.
- Applied Photography Optics, 3rd Edition, Sidney E. Ray, Focal Press 2002.
- Modern Physics, Murugesan, S. Chand and Co., 2002.
- Engineering Physics: Fundamentals and Modern Applications, P. Khare and A. Swarup, Jones and Barlett Publishers, 2010.
- Principles of Instrumental Analysis, 6th edition (2006), D.A. Skoog et. al., Saunders College Publishing.
- Murugesan, Modern Physics, S. Chand and Co., 2002.
- Bhatia, K.B., Elements of Electrical Gadgets, Arya Book Depot, 1993.
- Principles of Instrumental Analysis, 6th edition (2006), D.A. Skoog et. al., Saunders College Publishing.
- Practical Organic Chemistry by Vogel A. I., Orient Longmans Limited.
- Ahluwalia, V. K., Dhingra, S., Gulati, A., College Practical Chemistry, University Press (India) Pvt. Ltd. (2005)
- B.Sc. Practical Chemistry by P. L. Soni and S. C. Jain, Sultan Chand and Sons (1978).
- College Practical Physics by Khanna and Gulati, S. Chand and Co., (1999)

**CORE COURSE 8: COMMUNICATION SYSTEMS AND MASS MEDIA
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY	LECTURES 60
Unit I: Self and Communication	8
<ul style="list-style-type: none"> • Awareness of self in communication • Intrapersonal communication • Self-concept and self esteem 	
Unit II: Interpersonal Communication	12
<ul style="list-style-type: none"> • Concept, types and functions of interpersonal communication • Dyadic, small and large group communication • Stages in human relationship development • Small group communication: types and functions 	
Unit III: Organization, Public and Mass Communication	25
<ul style="list-style-type: none"> • Organizational communication: concept, types, functions and networks • Public communication- concept and techniques • Mass Communication- concept, significance, functions and elements • Theories and models of mass communication • Intercultural communication- concept, stages and barriers • Relationship between culture and communication 	
Unit IV: Mass Media	15
<ul style="list-style-type: none"> • Print Media: types, nature, characteristics, reach, access. • Radio: types, nature, characteristics, reach, access. • Television and cinema: types, nature, characteristics, reach, access. • ICTs: types, characteristics, reach and access. 	
PRACTICAL	
1. Know yourself exercises.	4
2. Studying group dynamics in organizations- formal and informal.	6
3. Audience analysis- readership, listenership and viewership studies	8
4. Content analysis of mass media	12

RECOMMENDED READINGS

- Devito, J. (1998) Human Communication. New York: Harper & Row.
- Barker, Larry Lee. (1990) Communication. Eaglewood Cliffs, New Jersey: Prentice Hall.
- McQuail, D. (2000) Mass Communication Theories. London: Sage Publications
- Baran, Stanley J (2009). Introduction To Mass Communication, McGraw hill medical publishing
- Baran, Stanley J (2014). Mass Communication Theory, Wadsworth Publishing
- Vivian, J (2012). The Media Of Mass Communication, Pearson
- Dominick, Joseph R. (2012). Dynamics of mass communication: media in transition , McGraw hill education

**CORE COURSE 9: PERSONAL FINANCE AND CONSUMER STUDIES
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY

LECTURES: 60

Unit I: Income and Expenditure

18

- Household Income – Types, sources, supplementation of family income, use of family income, budgets, maintaining household accounts
- Factors influencing expenditure pattern
- Family savings and investments- need ,principles, channels of investment, tax implications
- Consumer credit- need, sources, credit cards, housing finance
- Personal finance management – tax implications, calculation of personal income tax,
- Guidelines for wise buying practices

Unit II: Consumer in India: Consumer Problems and Education

20

- Definition of a consumer
- Role of consumers in the economy, National Income, Per Capita Income, household wise distribution of income
- Changing nature of the business world –e-commerce, e-business
- Types of consumer problems – products and service related, investment and infrastructure related, causes and solutions
- Consumer education and empowerment

Unit III: Consumer Protection

22

- Consumer protection
- Consumer rights and responsibilities
- Consumer organizations – origin, functioning, role and types.
- Consumer cooperatives – role, history and growth in India, PDS, Kendriya Bhandars.
- Basic legislative framework for consumer protection in India, Consumer Protection Act 1986 COPRA, Alternative redressal mechanisms, mediation centres
- Standardization and quality control measures: ISI, FPO, AGMARK, ISO, Eco mark, Wool mark, Silk mark, Cotton mark, Handloom mark, BEE star labelling and others
- Regulations on food labelling and claims: FSSAI, Codex for consumers

PRACTICAL

1. Evaluation and designing of advertisements in the print media including products, services and social ads. **6**

2. Evaluation and designing of informative and attractive labels of different type of food products.	4
3. Case study of banks and post offices to understand their services and products, Learning to fill different bank forms	6
4. Analysis of consumer redressal through case study approach under CPA.	6
5. Food adulteration tests	8

RECOMMENDED READINGS

- Khanna S.R., Hanspal S., Kapoor S. and Awasthi H.K., 2007, Consumer Affairs, Universities Press India Pvt. Ltd.
- Sawhney, H.K. and Mital, M., 2007, Family Finance and Consumer Studies, Elite Publishing House Pvt. Ltd.
- Seetharaman, P. and Sethi, M., 2001, Consumerism: Strength and Tactics, New Delhi: CBS Publishers.

CORE COURSE 10: HUMAN DEVELOPMENT II: DEVELOPMENT IN ADOLESCENCE AND ADULthood

(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Introduction to Adolescence

14

- Developmental tasks during adolescence
- Puberty, sexual maturity, nutrition, health, and psychological well-being
- Self and identity
- Family and peer relationships
- Adolescent interface with media
- Social development of adolescents

Unit II: Cognitive, Language and Moral and Emotional development

14

- Perspectives on cognitive development
- Development of intelligence and creativity
- Adolescent language
- Adolescent morality

Unit III: Introduction to Adulthood

14

- Definitions, transition from adolescence to adulthood
- Developmental tasks of adulthood
- Physical and physiological changes from young adulthood to late adulthood
- Significance of health, nutrition, and well being

Unit IV: Socio-Emotional and Cognitive development

14

- Diversity in roles and relationships
- Cognitive changes from early to late adulthood
- Work and leisure, marriage
- Dating, mate selection and courtship
- Engagements and weddings in different cultures
- Conflict resolution in marriage and family life
- Contemporary trends in marriage- Divorce, single parent family, step family, adoption, DINK, remarriage, alternative marriages

Unit V: Ageing and Geriatric Care

4

- Parenting and grand parenting
 - Problems in Ageing (Alzheimer, Dementia)
 - Death, dying, Death Education, Bereavement

PRACTICAL

1. To study physical and sexual changes in adolescence 2
2. To study cognitive development and creativity during adolescence 4
3. Case profile of an adolescent- including study of self, family relationships and peer relationships. 4
4. Use of interview/questionnaire method to study adult roles (at least one male and female)
 - Father/husband
 - Home maker
 - Employed woman
 - Grandfather/Grandmother
 - Single parent
 - College-going young adults 6
5. Familiarity with psychological tests of intelligence and personality- any four 6
6. Short surveys on-Mate selection trends,
Overview of wedding traditions and philosophies behind ceremonies 2
7. Studying and practicing conflict resolution strategies 4
8. Group discussions and debates on issues in marriage and family life 2

RECOMMENDED READINGS

- Berk, L. E. (2007). Development Through the Lifespan. Delhi: Pearson Education. □Rice. F. P. (1998). Human Development: A Lifespan Approach. New Jersey: Prentice Hall.
- Rutter, M. and Rutter, M. (1992) Developing Minds. Challenge and Continuity Across the Life span. London: Penguin.
- Santrock, J. W. (2007). A Topical Approach to Life-span development. New Delhi: Tata McGraw- Hill.
- Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient BlackSwan.
- Tennant, M. and Pogson, P. (1995) Learning and Change in the Adult Year, San Francisco: Jossey-Bass.

**CORE COURSE 11: NUTRITION: A LIFE CYCLE APPROACH
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY

LECTURES: 60

Unit I: Principles of Meal Planning

12

- Food groups and food exchange list
- Factors affecting meal planning and food related behavior
- Methods of assessment of nutrient requirements
- Dietary guidelines for Indians

Unit II: Nutrition during Adulthood

20

Physiological changes, RDA, nutritional guidelines, nutritional concerns, energy balance and healthy food choices.

- Adults
- Pregnant women
- Lactating mothers
- Elderly

Unit III: Nutrition during Childhood

20

Growth and development, growth reference/standards, RDA, nutritional guidelines, nutritional concerns, and healthy food choices.

- Infants
- Preschool children
- School children
- Adolescents

Unit IV: Nutrition for special Conditions

8

- Nutrition for physical fitness and sport
- Feeding problems in children with special needs
- Considerations during natural and man-made disasters e.g. floods, war.

PRACTICALS

2. Introduction to meal planning

4

- Rich sources of nutrients
- Use of food exchange lists

3. Planning nutritious diets for:

16

- Young Adult
- Pregnant/ Lactating woman
- Preschooler
- School age child/adolescent
- Elderly

4. Planning nutrient rich snacks/dishes for:

10

- Infants (complementary foods)
- Children/Adults

RECOMMENDED READINGS

- Bamji MS, Krishnaswamy K, Brahman GNV (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
- Khanna K, Gupta S, Passi SJ, Seth R, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Phoenix Publishing House.
- Wardlaw GM, Hampl JS, Di Silvestro RA (2004). Perspectives in Nutrition, 6th edition. McGraw Hill.
- Chadha R and Mathur P (eds). Nutrition: A Lifecycle Approach. Orient Blackswan, Delhi. 2015
- Gopalan C, Rama Sastri BV, Balasubramanian S C (1989) Nutritive Value of Indian Foods. National Institute of Nutrition, ICMR, Hyderabad.
- Seth V and Singh K (2005). Diet Planning through the Life Cycle: Part 1 Normal Nutrition. A Practical Manual. Elite Publishing House Pvt. Ltd. New Delhi.

CORE COURSE 12: INTRODUCTION TO TEXTILES
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Introduction to Textile Fibres	8
<ul style="list-style-type: none"> - Morphology of textile fibres - Primary and secondary properties - Fibre classification 	
Unit II: Production, Chemistry, Properties and Usage of Fibres	16
<ul style="list-style-type: none"> - Natural fibre: cotton, flax, silk and wool - Man-made fibers: rayon, polyamides, polyester, acrylic, olefins (polyethylene and polypropylene) and elastomeric fibres 	
Unit III: Production and Properties of Yarns	10
Yarn Construction: <ul style="list-style-type: none"> - Mechanical Spinning (Cotton system, Wool system, Worsted system) - Chemical Spinning (Wet, Dry, Melt) - Types of yarns: staple and filament, simple yarns, complex yarns - Yarn Properties-Yarn Numbering, Yarn Twist - Textured yarns: types and properties - Difference between threads and yarns - Blends: Types of blends and purpose of blending 	
Unit IV: Techniques of Fabric Construction	12
Weaving <ul style="list-style-type: none"> - Parts of a loom - Operations and motions of the loom - Classification of weaves- construction, characteristics, usage 	
Knitting <ul style="list-style-type: none"> -Classification of knits -Construction and properties of warp and weft knits 	6
Non-Wovens <ul style="list-style-type: none"> -Types - Construction - Properties and usage 	3
Unit V: Basics of Wet Processing	5
<ul style="list-style-type: none"> • Classification and uses of finishes 	

- Fundamentals of dyeing and printing

PRACTICAL

1. Fibre Identification tests –Visual, burning, microscopic and chemical	4
2. Yarn Identification – Single, ply, cord, textured, elastic, monofilament, multifilament and spun yarn	4
3. Thread count and balance	4
4. Dimensional stability	2
5. Weaves- Identification and their design interpretation on graph	6
6. Fabric analysis of light, medium & heavy weight fabrics (five each)	4
- Fibre type	
- Yarn type	
- Weave	
- GSM	
- End use	
- Trade name	
7. Tie and Dye	6

RECOMMENDED READINGS:

1. Corbman, P.B., (1985) Textiles- Fiber to Fabric (6th Edition), Gregg Division/McGraw Hill Book Co., US.
2. Joseph, M.L., (1988) Essentials of Textiles (6th Edition), Holt, Rinehart and Winston Inc., Florida.
3. Vilensky G., (1983) Textile Science, CBS Publishers and Distributors, Delhi.
4. Tortora, G. Phyllis, Understanding Textiles, McMillan Co. USA.
5. Sekhri S., (2013) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi

CORE COURSE 13: RESEARCH METHODOLOGY IN HOME SCIENCE

(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Research- Meaning, Purpose and Approaches

20

- Exploration, description, explanation
- Scientific method and research
- Research designs –experimental and observational
- Quantitative and qualitative approaches

Conceptualization and Measurement

- Variables, concepts and measurement
- Levels of measurement
- Units of analysis

Unit II: Sampling and Tools

20

- Role of sampling in research
- Types of sampling

Research Tools and Techniques

- Validity and reliability
- Interviewing and observational methods

Unit III: The Research Process

20

- Defining the problem, research questions, objectives, hypotheses
- Review of related literature and originality in writing
- Planning the research
- Subjects context and ethics
- Methodology and tools
- Citation formats: in medical sciences, social sciences

PRACTICAL

30

1. Exercise in sampling, random number table.
2. Exercise in designing tools and their analyses : interview, questionnaire.
3. Data collection process: conducting interviews, FGDs, case studies

RECOMMENDED READINGS

- Kumar, R. (2005) Research Methodology : A Step by Step Guide for Beginners. Sage Publications, New Delhi.
- Kerlinger F. N. and Lee, H.B. (2000) Foundations of Behavioural Research 4th Ed. Harcourt College Publishers
- Kothari, C. R. (2008) Research Methodology: Methods and Techniques 2nd Ed. New Age International Pvt Ltd, New Delhi.
- Black, J.A. & Champion, D. J. (1976) Methods and Issues in Social Research. New York: John Wiley and Sons.

CORE COURSE 14: SOCIO ECONOMIC ENVIRONMENT
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Part I: Sociological Concerns and Orientation

15

Unit I Sociological Orientation

- Society, culture and institutions
- Family, kinship and relationships
- Social groups and multiplicity
- Cultural diversity in contemporary life.

Unit II Emergence of New Ideological Orientations

15

- Social mobility and social change
- Emergent cultural stereotypes
- Ethnographic approaches to the study of groups.
- Appreciating cultural plurality, interconnection between the spheres
- Sociological studies of children, youth and women the aged: empirical problem and frameworks.

Part II: Economic Theory and Environment

15

Unit III: Introduction – Economic system, Consumption and Production and Distribution

- Definition, scope of economics, central problems of an economy
- Wants – classification and characteristics.
- Utility – law of diminishing marginal utility, Law of equi-marginal utility, demand – law of demand, elasticity of demand.
- Engel's law of consumption, consumer's surplus
- Supply – law of supply, elasticity of supply, equilibrium of demand and supply.
- Factors of production– land, labour and capital, national income estimates
- Types of markets
- Types & functions of money, value of money – quantity theory, measurement of the value of money-index number, inflation
- Types & functions of banks
- Revenue, taxation and International trade

Unit IV: Indian Economic Environment

15

- Structure of Indian economy: changing structure of Indian economy.
- Constraints on growth: issues of population, income distribution, poverty, unemployment, inequality and migration, food security.
- Role, importance and organization of Indian agriculture.

- Role, importance and problems of Indian industries, India's International business and balance of payment problems.
- Recent developmental programmes of the Government of India: Jana Dhana Yojna, Sarva Siksha Yojana.
- Planning: models, objectives and achievement
- Issues related to health, education, environmental problems and gender.

PRACTICAL

18

Part 1 Practical

- Changing families and relating to society.
- Individuals facing conflicts and consensus in society.
- Changing status and roles in varied spaces in family, work the elderly and its implication on the individual and society across cultures.
- Experiences of exclusion on the individual: caste, minority, disability, violence, immigration
- Religion and culture
- Case studies, narratives, films, fieldtrips to different regions, communities like tribal, rural, urban

Part II Practical

12

- Field visit (to do the comparative economic studies)
- Case Studies related to current economic issues (Developmental and Environmental)
- Data interpretation and analysis (to see the trends of growth and development of certain sectors or vice versa.)

RECOMMENDED READINGS

- Abraham, M. F. (2006). Contemporary Sociology: An introduction to concepts and theories: New York: Oxford University Press.
- Beattie, J. (1964). Other Cultures. Cohen and West.
- Das, V. (Ed.) (2003) The Oxford Companion to Sociology and Social Anthropology: volume 1 and 2. New Delhi: Oxford University Press.
- Johnson, M.H. (2001). Sociology: A Systematic Introduction. New Delhi: Allied Publishers Limited.
- Rawat, H.K. (2007). Sociology: Basic Concepts. New Delhi: Rawat Publications.
- Srinivas, M.N. (Ed.) (1996). Caste: Its Twentieth Century Avatar. New Delhi: Viking Penguin.
- Ahuja H.L., 2010, Modern Micro Economics. Sultan Chand & sons
- Dhingra IC and Garg VK, 2010, Introductory Economic Theory. Sultan Chand & Sons
- Mishra and Puri, Recent edition 2014, Indian Economy, Himalaya Publishing House.
- Mithani D.M., 2010 New Edition, Macro-Economics. Himalaya Publishing House
- Sundaram K.P.M., 2010, Introduction to Economics. Ratan Prakashan

DISCIPLINE SPECIFIC ELECTIVE (DSE)

DSE 1: FOOD SCIENCE (CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Introduction to Food Science

6

- Definition, importance and applications
- Basic terminology used in food science

Unit II: Basic Food Chemistry

10

- Sources, chemistry and functional properties of carbohydrates, lipids and proteins.
- Colloidal chemistry: definition, classification, properties and applications of sols, gels, foams and emulsions.

Unit II: Basic Food Microbiology

8

- Introduction to yeast, mold and bacteria - characteristics and their role in preservation and spoilage of food.
- Hygiene and sanitation practices in food processing and waste disposal.

Unit III: Preservation Techniques, Principles and their Applications

20

- High temperature, low temperature, removal of moisture, irradiation and additives.
- Food packaging and labeling: FSSAI, Codex

Unit IV: Sensory Science

8

- Physiological basis of sensory evaluation and sensory attributes of food.
- Sensory evaluation: assessment, subjective and objective.

Unit V: Food Laws and Quality Assurance

8

- National and International food laws – FSSAI, BIS, AGMARK, Codex and ISO: 22000, ISO: 9000, ISO: 14000.
- Quality Assurance Procedures - GMP, GHP, HACCP

PRACTICAL

1. i. Applications and factors affecting formation of Sols, gels, foams and emulsions **6**
 ii Study of microscopic structure of different food starches and their gelatinization properties

2.	i. Slide preparation and identification of bacteria yeast and mold	4
	ii. Assessment of hygienic practices of food handlers	
3.	i. Preservation of food using different methods (blanching, dehydration, freezing)	8
	ii. Basic principle involved in food preservation using additives	
	iii. Jam, Jellies and preserves	
4.	i. Sensory evaluation methods and their applications.	8
	ii. Food analysis: Moisture, pH, acidity, Total soluble solids by refractometer.	
5.	Evaluation of Food labels	2
6.	Food Adulteration	2

RECOMMENDED READINGS

- Frazier W. C. and Westhoff D. C. (1988). Food Microbiology, 4th Edition.
- Manay S. and Shadaksharaswamy M (2002). Foods – Facts and Principles. Wiley Eastern Ltd.
- Potter H (1995). Food Science, 5th Edition. CBS Publishers & Distributors.
- Srilakshmi (2007). Food Science, 4th Edition. New Age International Ltd.
- www.fssai.gov.in
- Raina U, Kashyap S, Narula V, Thomas S, Suvira, Vir S, Chopra S (2010). Basic Food Preparation: A Complete Manual, Fourth Edition. Orient Black Swan Ltd.
- Sethi Mohini and Rao E (2011). Food Science (Experiments and Applications), 2nd Edition. CBS Publishers & Distributors Pvt. Ltd.

DSE 2: NUTRITIONAL BIOCHEMISTRY
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Carbohydrate Metabolism

15

- Regulation of enzymes- allosteric, covalent modification and gene expression
- Carbohydrate structures
- Citric Acid cycle and ATP synthesis
- Glycolysis and oxidation of pyruvate
- Glycogenolysis
- Gluconeogenesis and the control of blood glucose

Unit II: Lipid Metabolism

15

- Fatty acids
- β -Oxidation of fatty acids
- Ketogenesis and ketosis

Unit III: Protein Metabolism

15

- Structures of amino acids and proteins
- Transamination of amino acids and formation of glutamate
- Biosynthesis of urea

Unit IV: Vitamins

15

- Biochemical role of fat soluble vitamins-A and D
- Biochemical role of water soluble vitamins- thiamine, riboflavin, niacin, pyridoxine and ascorbic acid

PRACTICAL

1. Carbohydrates

10

- Qualitative tests for mono, disaccharide and polysaccharides and their identification in unknown mixtures
- Quantitative estimation of glucose, sucrose and lactose by titrimetric method
- Estimation of Reducing sugar

2. Minerals

4

- Estimation of Ash

- Estimation of calcium using EDTA by titration
- Estimation of Phosphorous
- Estimation of Iodine in salt

3. **Vitamins** **2**

Estimation of ascorbic acid by using 2, 6 dichlorophenol indophenol method in the given solution and in the given food stuff (lemon)

- | | |
|--|---|
| 4. Fats-Estimation of Acid value, Iodine value and saponification number | 4 |
| 5. Qualitative tests for protein | 2 |
| 6. Qualitative tests of urine and quantitative analysis of creatinine in urine | 2 |
| 7. Estimation of Haemoglobin | 1 |
| 8. Estimation of total protein and albumin | 2 |
| 9. Visits to various laboratories- Exposure to various chromatography techniques | 3 |

RECOMMENDED READINGS

- Harper's Illustrated Biochemistry, 28th Edition, McGraw Hill
- Lehninger A.L, Nelson D.L and Cox M.M (2009). Principles of Biochemistry, 6th Edition, CBS Publisher and Distributors.
- Pushpa Sundararaj and Anupa Siddhu. Qualitative Tests and Quantitative Procedures in Biochemistry, A H Wheeler and Co Ltd. 2002 Second Edition, Wheeler, New Delhi.

DSE 3: THEORIES OF HUMAN DEVELOPMENT
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Introduction to Theories in Human Development **15**

- Key themes in the study of human development- nature/nurture, active/ passive, continuity/discontinuity, individual differences and similarities
- Understanding a theory
- Role of theories in understanding Human Development

Unit II: Perspectives on Human Development **15**

- Evolutionary and ethological /biological: Darwin, Lorenz, Bowlby
- Ecological: Bronfenbrenner
- Behavioural: Pavlov, Skinner, Bandura

Unit III: Selected Theories of Human Development **20**

- Psychodynamic; psychosexual and psychosocial theories; Freud, Erikson
- Cognition: Piaget, Vygotsky
- Models and theories of intelligence: Guilford, Spearman and Gardener
- Humanistic: Maslow and Rogers

Unit IV: Theories in Everyday Life **10**

- Eclectic theoretical orientation
- Ethno theories

PRACTICAL

1. Biography of a theorist with a focus on his/her family life and childhood experiences **4**
2. Depict the 'eco-cultural' network for a child using the ecological model of Bronfenbrenner **5**
3. Verification of selected theories using multiple methods **7**
4. Observe/ analyze creation of media product for children or product such as toys/ clothes using theoretical base **8**
5. Locate a tool/ scale of psychometric tests and administer it **4**
6. Autobiography **2**

RECOMMENDED READINGS:

- Berger, J.M. (2010). Personality (8thed.). Belmont, CA: Thomson/Wadsworth
- Allen, B.P. (2006). Personality Theories: Development, Growth and Diversity (5thed.). Needham Heights, MA: Allyn and Bacon
- Santrock, J.W. (2007). Lifespan Development (3rded.). New Delhi, Tata- McGraw Hill
- Rice, P. (1995). Human Development: A Lifespan Approach. New Jersey, Prentice-Hall Inc

DSE 4: CHILDHOOD IN INDIA
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES : 60

Unit I : Introduction to Childhood in India **15**

- Children in India: An overview
- Social construction of childhood and family
- Folk theories about childhood and family
- Childhood in mythology, stories and films

Unit II : Multiple Contexts of Childhood in India **15**

- Childhood in families
- Growing up without the family
- Childhood in schools
- Children in extra- familial settings
- Belonging to a minority community

Unit III : Psycho- Social Dimensions of Childhood **20**

- Growing up in tribal family
- Childhood in selected family occupations: artists, farmers, weavers
- Growing up in rural setting
- Childhood in urban India
- Being a girl in India

Unit IV : Contemporary Issues of Childhood in India **10**

- Language, religion and culture
- Poverty and disadvantage
- Caste and childhood
- Children on streets

PRACTICAL

- | | |
|---|-----------|
| 1. Personal social experiences of childhood in families | 3 |
| 2. Beliefs and practices related to children in different communities | 2 |
| 3. Children's experiences of ethnicity/class/caste/language | 3 |
| 4. Stories, folk songs, toys and games from diverse ethnic groups | 12 |
| 5. Depiction of childhood in media. | 10 |

RECOMMENDED READINGS

- Behera, D. K. (Ed.) (2007) *Childhood in South Asia* : New Delhi. Pearson- Longman
- Krishnan, L. (1998). *Child Rearing: An Indian perspective*. In, A. K. Srivastava (Ed.), *Child Development: An Indian Perspective*. Pp. 25-55. New Delhi: National Council for Education Research and Training.
- Sharma, D. (2003). *Infancy and Childhood in India*. In, D. Sharma (Ed.), *Childhood, family and sociocultural changes in India* (13-47). New Delhi: Oxford.

**DSE 5: COMMUNICATION FOR DEVELOPMENT: BCC
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY

LECTURES 60

Unit I Concept of Development and Development Communication 12

- Concept of development, characteristics of developing countries
- Measuring development- Indices of measuring development and classification of countries based on development indices
- Models of Development- Dominant Paradigm, Basic Needs Model, New Paradigm of development
- Development Communication- concept and genesis, characteristics, differences between communication and development communication
- Philosophy and approaches to development communication

Unit II Understanding Development Paradigms 15

- Press theories: Normative: Authoritarian, Libertarian, Social Responsibility, Democratic
- Participant theory; Sociological: Uses and Gratification, Agenda setting; Two-Step Flow; Psychological; Bullet Theory
- Success stories in Development Communication
- Innovations and trends in Development Communication

Unit III: Media and Development Communication: 20

- Traditional media: types, characteristics, role in development communication
- Development reporting- roles and responsibilities of a development reporter, ethics in reporting, specialized skills required and issues in development reporting
- News reporting: definition of news, ingredients and qualities of news, news value, types of news reports, structure of news reports
- Radio news, features and commentaries. Radio and development communication.
- Television and cinema: role in development communication.
- ICTs: scope in development communication.

Unit IV: Behaviour Change Communication (BCC) 13

- Concept and relevance of BCC: BCC and Advocacy
- Approaches to BCC, types and steps of advocacy
- BCC- Strategy design and implementation.
- Appraisal of communication action plan for BCC
- Role of BCC in promoting health, environmental sustainability, peace and human rights

PRACTICAL

- Analysis of development indicators - national and international perspectives **7**
- Critical analysis of selected development initiatives **6**
- Analysis of media for development communication **8**
- Designing media for development communication **9**

RECOMMENDED READINGS

- Narula, Uma (1994) Development Communication, New Delhi, Hariand Publication
- Rozer, E. and Storey D. (1987) Communication Campaign in C. Burger and S. Sheffe (Eds), Handbook of Communication Sciences (817-846) Newbury Park, C A: Sage
- Servaes, Jan (2008). Communication for Development and Social Change, New Delhi, Sage Publication
- Paulo Mefalopulos. Development Communication Sourcebook- Broadening the Boundaries of Communication, The World Bank, 2008

DSE6: EXTENSION FOR DEVELOPMENT
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Concept of Extension

15

- Extension: concept, goals and history
- Adult learning components of Extension
- Extension systems- types, advantages and disadvantages
- Relationship between communication and extension - role of extension in development

Unit II: Extension Methods and Approaches

20

- Stakeholders in development
- People's participation and social mobilization in development
- Leadership and extension- concept theories styles and types of leadership
- Diffusion of innovation and adoption
- Extension methods and approaches - classification, characteristics and selection

Unit III: Development Programmes

25

- Development issues and goals- national and international perspectives
- National development programmes – goals, strategies, structure and achievements
- Analysis of contemporary national development programmes- objectives, clients, salient features, outcomes and communication support.
- Behaviour Change Communication strategies in development programmes

PRACTICAL

30

- Analysis of development programmes
- Evaluate strategies used by development agencies for implementation of development programmes
- Develop skills in planning and using individual and small group methods in extension

RECOMMENDED READINGS

- Mikkelsen, Britha, (2002), Methods for Development Work and Research. New Delhi: Sage Publications
- Dale R, (2004) Evaluating Development Programmes and Projects. New Delhi : Sage Publications.
- Kumar and Hansra, (1997) Extension Education for Human Resource Development. New Delhi: Concept Publishers.

**DSE 7: TEXTILE PROCESSING
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY

LECTURES : 60

Unit 1: Dyeing **22**

- Terminology and theory of dyeing
- Classification of dyes
- Chemistry and mode of application of direct, acid, basic, azoic, reactive, sulphur, vat, mordant and disperse dyes
- Principles of colour fastness

Unit 2: Printing **24**

- Methods of printing
 - Block printing
 - Flat plate and roller printing
 - Stencil, screen(flat and rotary) printing
 - Transfer printing
 - Innovative printing methods: Digital printing etc.
- Styles of printing – direct, discharge, resist, dyed
- Fixation of prints: ageing, steaming, baking, wet development
- Washing of printed goods
- Auxiliaries
 - Wetting agents, dispersing agents and solvents
 - Hygroscopic agents
 - Anti foaming agents
 - Oxidizing and reducing agents
 - Carriers
 - Binders and thickeners

Unit 3: Finishing **14**

- Classification of finishes
- Preparatory finishes
- Finishes affecting appearance and texture
- Finishes for enhancing special characteristics

PRACTICAL

1. Dyeing	14
• On cotton using direct, reactive, azo and vat	
• On wool and silk using acid, basic and reactive	
• On acrylic using basic dyes	
2. Printing with blocks and screens	10
• Direct Printing- pigment colours	
• Discharge printing- direct dyes	
• Resist Printing-azo dyes	
3. Colour fastness of dyed fabrics	6
• Wash fastness	
• Crock/Rub fastness	
• Perspiration fastness	

RECOMMENDED READINGS:

- Miles L.W.C.(1994), Textile Printing, 2nd edition, England, Society of Dyers and Colourists
- Sekhri S., (2013) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi
- Shenai, V.A. (1987) Chemistry of Dyes and principles of Dyeing ,Vol II, Bombay, India, Sevak Publications.

**DSE 8: INDIAN TEXTILE HERITAGE
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY

LECTURES: 60

Unit 1: Study of Textile Crafts of India: With reference to History, Production Centers, Techniques, Designs, Colours and Products

- Woven Textiles-Benaras brocades , Jamdanis and Baluchars of Bengal, 1212 **12**
- Kani shawls of Kashmir
- Embroidered Textiles-Kanthas of Bengal, Kasuti of Karnataka, **12**
- Phulkari of Punjab, Chikankari of Uttar Pradesh, Kashida of Kashmir,
- Gujarat embroideries
- Painted and Printed textiles –Kalamkaris of Andhra Pradesh, Dabu **10**
- printing of Rajasthan , Ajarakh prints of Gujarat
- Dyed textiles –Bandhnis of Rajasthan and Gujarat, Ikats- Patola **10**
- of Gujarat, Bandhas of Orissa, Telia Rumal

Unit 2: Conservation of Traditional Textiles **8**

- Factors influencing degradation of textiles
- Care and storage techniques

Unit 3: Status of Traditional Textiles in Modern India **8**

- Evolution and socio-economic significance of Khadi, Handloom and Handicraft sector
- Sustenance of traditional textile crafts
- Interventions by organizations

PRACTICAL

- Traditional Embroideries **10**
- Tie and dye **6**
- Batik **4**
- Block printing **3**
- Portfolio and product development **4**
- Visit to craft centers **3**

Recommended Readings:

1. Agarwal, O.P., 1977, Care and Presentation of Museum projects – II, NRL
2. Chattopadhyaya, K.D., 1995, Handicrafts of India, Wiley Eastern Limited, N Delhi
3. Das, Shukla, 1992, Fabric Art- Heritage of India, Abhinav Publications, N Delhi

**DSE 9: ENTREPRENEURSHIP DEVELOPMENT AND ENTERPRISE
MANAGEMENT
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY

LECTURES : 60

Unit I: Entrepreneurship Development 18

- Entrepreneurship- concept, definition, need and significance of entrepreneurship development in India, entrepreneurship growth process, barriers, entrepreneurship education model.
- Entrepreneur-their characteristics, types, gender issues, role demands and challenges.
- Entrepreneurial motivation.
- Challenges faced by women entrepreneurs

Unit II: Enterprise Planning and Launching 20

- Types of enterprises classification based on capital, product, location, ownership pattern and process
- Sensing business opportunities and assessing market potential; market research
- Appraising of project and feasibility

Unit III: Enterprise Management and Networking 22

- Managing Production
 - Organizing Production; input-output cycle
 - Ensuring quality
- Managing Marketing
 - Understanding markets and marketing
 - Functions of marketing
 - 4Ps of marketing(same as marketing mix)
- Financial Management
 - Meaning of finance
 - Types and sources of finance
 - Estimation of project cost
 - Profit assessment
- Networking of Enterprises

PRACTICAL

- 1.SWOT analysis with respect to entrepreneurial competencies through case profiling of successful entrepreneurs and enterprises. **10**
2. Achievement motivation lab-development of entrepreneurial competencies **8**
3. Survey of an institution facilitating entrepreneurship development in India. **5**
4. Preparation of business plan. **7**

RECOMMENDED READINGS

- Gundry Lisa K. and Kickul Jill R, 2007, Entrepreneurship Strategy: Changing Patterns in New Venture Creation, Growth, and Reinvention, SAGE Publications, Inc.
- Taneja and Gupta, 2001, Entrepreneur Development- New Venture Creation, Galgotia Publishing Company

DSE 10: INTERIOR DESIGN AND DECORATION
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Design Fundamentals

30

- Objectives of art and interior design.
- Types of design: structural and decorative.
- Elements of content: space, point, line, shape, form, texture, light and color.
- Elements of order: scale, similarity, proximity, sequence, trends, themes, geometrical organization.
- Principles of composition – rhythm, balance, proportion, emphasis, unity, (variety, simplicity/economy, suitability).
- Composition of a drawing – harmony, clarity, adequacy.
- Color and its application.
 - Dimensions of color.
 - Importance of color and its role in creation of the design.
 - Color systems and theories.
 - Color harmonies.
 - Principles of design as applied to color use.
 - Color forecasting
- Design drawing – drawing as a language to explore and communicate Ideas.

Unit II: Furniture and Furnishings: Historical Perspectives and Contemporary Trends 30

- History of Interior Design – including periods like Mughal Architecture, Colonial style, Renaissance.
- Architectural styles –based on themes and main periods, like post Renaissance and modern style.
- Contemporary trends in Interior Design with respect to furniture, furnishings and accessories.
- Furniture – types, construction, selection and purchase, arrangement, care and maintenance
- Furnishings – selection, care and maintenance of fabrics used for -
 - Soft furnishings: curtains and draperies, upholstered furniture, cushions and pillows, etc.
 - Floor coverings

- Accessories – uses, classification, design, selection and arrangement.
- Traditional and modern surface finishes – types and uses
 - Furniture
 - Wall
 - Floor
 - Ceilings
 - Roofing
- Lighting applications (energy efficient lighting design – number and type of lamps and luminaires for efficiency in lighting).
- Accessories – uses, classification, design, selection and arrangement.

PRACTICAL

- Drawing – Introduction to drawing instruments and tools (manual and computer tools) **6**
 - Drawing lines (freehand and with drawing instruments) - both-dimensional and 3dimensional
 - Lettering
 - Sketching (figures, buildings, trees and plants, vehicles) - both -dimensional and 3dimensional
 - Rendering for different surfaces such as trees, brick, grass, water, wood, stone, earth, concrete using water colours, stubbing, pencil colours
- Preparation of catalogue comprising pictures denoting application of art and elements of design; colour - colour wheel, dimension and harmonies of colour. **4**
- Floor plans with rendering (theme based- manual/computer aided) **3**
- Elevation and perspective plans with rendering (manual/computer aided) **3**
Furniture and furnishing plans of specific areas- Critical Analysis **2**
- Preparation of portfolio based on historical designs and market review of furniture and furnishing materials (upholstery, curtains and draperies, bed and table linen) **12**
 - Wall coverings and decorations (pictures, etc)
 - Floor coverings and decorations
 - Window and door treatments
 - Lighting systems
 - Artifacts (sculptures, ceramics/terracotta, handicrafts, flower arrangements, etc.)
 - Fittings and fixtures
 - Wood and its substitutes.

RECOMMENDED READINGS

- Lawrence M, (1987), Interior Decoration, New Jersey: Chartwell Books.
- Riley and Bayen., (2003), The Elements of Design, Mitchell Beazley.

DSE 11: THERAPEUTIC NUTRITION
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I Principles of Nutrition Care

8

- Nutrition care process
- Therapeutic adaptations of the normal diet
- Progressive diets – clear fluid, full fluid, soft and regular

Unit II Etiology, Clinical Features and Nutritional Management of Infections and Fevers

8

- Typhoid
- Tuberculosis
- HIV

Unit III Etiology, Clinical Features and Nutritional Management of the following

18

- GI Tract Disorders
- Liver disease
- Kidney disorders

Unit IV Etiology, Clinical Features and Nutritional Management of

10

- Weight Imbalances-Overweight and obesity; Underweight
- Eating disorder- anorexia nervosa and bulimia

Unit V Etiology, Clinical Features, basic Diagnosis and Nutritional Management of the Following

12

- Type 1 and Type 2 diabetes mellitus
- Metabolic syndrome
- Hypertension and coronary heart disease

Unit VI Food Allergy and Food Intolerance

4

- Etiology, clinical features, diagnosis and nutritional management

PRACTICAL

1. Planning, preparation and service of diets for the following:

8

2. Therapeutic diets – normal, soft, clear and full fluid

18

- i. Fevers: acute and chronic
- ii. Obesity
- iii. Type 2 diabetes
- iv. Hypertension and CHD

- v. Liver conditions and gall bladder diseases
- vi. Kidney diseases
- vii. Survey therapeutic foods in market **4**

RECOMMENDED READINGS

- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). *Textbook of Nutrition and Dietetics*. Phoenix Publishing House Pvt. Ltd.
- Mahan L K and Escott Stump S (2013). *Krause's Food and Nutrition Therapy*, 13thed. Saunders-Elsevier.
- Stacy Nix (2009). *William's Basic Nutrition and Diet Therapy*, 13th Edition. Elsevier Mosby.
- ICMR (1999). *Nutritive Value of Indian Foods*. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- Seth V and Singh K (2007). *Diet Planning through the Life Cycle Part II: Diet Therapy. A Practical Manual*, 4th edition. Elite Publishing House Pvt. Ltd.

DSE 12: PUBLIC NUTRITION
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Concept and Scope of Public Nutrition

5

- Definition and multidisciplinary nature of public nutrition
- Concept and scope
- Role of public nutritionist

Unit II: Nutritional Problems, their Implications and related Nutrition Programmes

22

- Etiology, prevalence, clinical features and preventive strategies of
 - Undernutrition - protein energy malnutrition, nutritional anaemias, vitamin A deficiency, iodine deficiency disorders
 - Overnutrition – obesity, coronary heart disease, diabetes
 - Fluorosis
- National Nutrition Policy and Programmes - Integrated Child Development Services (ICDS) Scheme, Mid day Meal Programme (MDMP), National programmes for prevention of Anaemia, Vitamin A deficiency, Iodine Deficiency disorders

Unit III: Assessment of Nutritional Status

18

- Objectives and importance
- Methods of assessment
 - a. Direct – clinical signs, nutritional anthropometry, biochemical tests, biophysical tests
 - b. Indirect – diet surveys, vital statistics

Unit IV: Nutrition Education

15

- Objectives, principles and scope of nutrition and health education and promotion
- Behaviour change communication

PRACTICAL

1. Planning of low cost nutritious recipes for infants, preschoolers, adolescent girls pregnant/nursing mothers **5**
2. Nutrition education for the community **5**

- | | |
|---|-----------|
| 2. Assessment of Nutritional Status: | 12 |
| <ul style="list-style-type: none"> • Anthropometry – weight and height measurements • Plotting and interpretation of growth charts for children below 5 years • Identification of clinical signs of common nutritional disorders • Dietary assessment – FFQ and 24 hour diet recall • Assessment of BMI • Visits to hospitals | |
| 3. Planning and conducting a food demonstration. | 6 |
| 4. Visit to an ongoing nutrition and health promotion programme. | 2 |

RECOMMENDED READINGS

- Wadhwa A and Sharma S (2003). Nutrition in the Community-A Textbook. Elite Publishing House Pvt. Ltd. New Delhi.
- Park K (2011). Park's Textbook of Preventive and Social Medicine, 21st Edition. M/s BanarasidasBhanot Publishers, Jabalpur, India.
- Bamji MS, Krishnaswamy K and Brahmam GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
- ICMR (1989) Nutritive Value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- ICMR (2011) Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- Jelliffe DB, Jelliffe ERP, Zervas A and Neumann CG (1989). Community Nutritional Assessment with special reference to less Technically Developed Countries. Oxford University Press. Oxford.
- World Health Organization (2006). WHO Child Growth Standards: Methods and Development: Length/height-for-age, weight-for-age, weight-for-length, weight-for height and body mass index-for-age (<http://www.who.int/childgrowth/standards/en/>).

**DSE 13: CHILD RIGHTS AND GENDER JUSTICE
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY

LECTURES: 60

Unit I: Introduction to Child Rights

15

- Child rights: concept
- Demographic profile of Indian children
- Disadvantage, deprivation and social exclusion with reference to children
- Laws, policies and programmes for children in India
- UNCRC

Unit II: Children in Need of Care and Protection

15

- Vulnerable groups: causes and consequences
- Street, homeless, institutionalized and working children
- Child Abuse
- Child Trafficking
- Children in conflict with the law
- Children living with: chronic illness, HIV

Unit III: Social Construction of Gender

14

- Socialization for gender: gender roles, stereotypes and identity
- Gender in the workplace and in public spaces
- Contemporary influences: media and popular culture
- Demographic profile of women and children in India

Unit IV: Gender and Indian society

16

- Sex and Gender, Masculinity and Femininity, biological and cultural determinants
- Patriarchy and social institutions
- Being male and female in Indian society-social traditions and contemporary issues
- Exploring the issues of violence against females
- Laws, policies and programmes for children and women

PRACTICAL

1. Visits to organizations working in the area of Child Rights and Gender to understand their objectives, programmes and experiences. **6**
2. Workshops on relevant issues like Gender, domestic violence, gendering of public spaces **10**
3. Understanding child rights and gender issues in diverse social groups through field visits and interactions **8**
4. Media portrayals of women and children. **6**

RECOMMENDED READINGS

- Agarwal, A. and Rao, B.V. (2007). Education of Disabled Children. New Delhi: Eastern Book Corporation.
- Agnes, F. (1999). Law and Gender Inequality: The politics of Women's Rights in India. Oxford University Press.
- Bajpai, A. (2006). Child Rights in India: Law, Policy and Practice. Oxford University Press.
- Kishwar, M. (1999). Off the Beaten Track: Rethinking Gender Justice for Indian Women. New Delhi: Oxford University Press.
- Satyarthi, K. and Zutshi, B. (Ed) (2006). Globalization, Development and Child Rights. New Delhi: Shipra Publication.
- Saikia, N. (2008). Indian women: A Socio-Legal Perspective. New Delhi: Serials Publication.

DSE 14: CHILDHOOD DISABILITY AND SOCIAL ACTION
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Understanding Disability and Inclusion

12

- Defining and understanding disability
- Rights of persons with disability and UNCRPD
- Perspective on disability: Individual and social
- Attitudes towards disability- family, school, society and media

Unit II: Types of Disability

28

- Identification, assessment and etiology with reference to:
 - Physical disabilities
 - Intellectual disability
 - Sensory disabilities- Visual and auditory
 - Learning disability
 - Autism

Unit III: Disability and Society

20

- Overview of practices and provisioning related to addressing disability in India
- Prevention, therapy, education and management
- Families of children with disabilities
- Policy and laws

PRACTICAL

30

1. Visits- Government and private institutions and organisations (CGC, schools, NGO's, Hospitals)
2. Observe the context
3. Case profile of child with disability
4. Program planning
5. Planning developmentally appropriate material for children with disability
6. Media exploring sources of information about children and their families using print and audio visual media.
7. Select Psychometric tests (Raven's Progressive Matrices, test for learning disability)

RECOMMENDED READINGS

- Chopra,G., (2012). *Early Detection of Disabilities and persons with disabilities in the community*. New Delhi: Engage publications
- Chopra,G., (2012). *Stimulating Development of Young Children with Disabilities at Anganwadi and at Home: A Practical Guide*. New Delhi: Engage publications.
- Sharma, N. (Ed)(2010). *The Social Ecology of Disability-Technical Series -3*Lady Irwin College. Delhi:Academic Excellence
- Mangal, S. K. (2007).*Exceptional Children: An Introduction to Special Education*. New Delhi: Prentice Hall of India
- Jangira, N.K.(1997) “Special Educational Needs of Children and Young Adults: An Unfinished Agenda,” *Education and Children with Special Needs: From Segregation to Inclusion*,Ed. Seamus Hegarty, Mithu Alur, Thousand Oaks: Sage Publications Inc.
- Karna, G. N. (1999). *United Nations and rights of disabled persons: A study in Indian perspective*. New Delhi: A.P.H. Publishing Corporation.
- Mani, R. (1988). *Physically handicapped in India*. Delhi: Ashish Publishing House.
- Mastropieri, M. A., & Scruggs, T. E. (2004). *The Inclusive Classroom: Strategies for Effective Instruction*. NY: Pearson.

DSE 15: GENDER, MEDIA AND SOCIETY
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES 60

Unit I: Social Construction of Gender

15

- Concept of gender
- Differences between sex and gender
- Patriarchal social order and status of women
- Socio Cultural practices influencing women's status development
- Shifts in Status of women – historical and contemporary perspectives
- Feminist theories and perspectives
- Role of Media in construction of gender

Unit II: Gender and Development

20

- Concept of Gender and Development – Indicators of human and gender development
- Approaches to women's participation in development
- Status, issues and challenges in context to violence against women,
- Gender differentials: Women and health, women and education, women's work and economic participation, women and leadership
- Legal provision for women's rights

Unit III: Gender and Media

15

- Social construction of gender reality by contemporary media
- Media and perpetuation of gender stereotypes: Rhetoric of the image, narrative
- Mainstream media and gender
- Representation of women in media in political, cultural and social landscape
- Researching and analyzing media from a gender perspective: In broadcast, print, new media
- Gender and ICTs

Unit IV: Gender, Law and Advocacy

10

- Human rights and Right to development
- Women, Human Rights and Women's right to access information
- Framework for gender responsive media and gender mainstreaming
- Gender and media ethics

PRACTICAL

- | | |
|---|-----------|
| 1. Analysis of gender differentials using development indicator | 12 |
| 2. Gender based analysis of media with special reference to portrayal of women. | 15 |
| 3. Case studies for programmes and campaign for women's development. | 3 |

RECOMMENDED READINGS

- Bhasin, Kamla (2000). Understanding Gender. New Delhi. Kaali for Women.
- Goel, A, Kaur, A and Sultana, A (2006). Violence against Women: Issues and Perspectives. New Delhi, Deep& Deep Publishers.
- Sohoni, K Neeraja, (1994), Status of Girls in Development Strategies, New Delhi, Har Anand Publications.

DSE 16: PROGRAMME DESIGN AND EVALUATION
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES 60

Unit I: Programme Planning and Management 15

- Concept, approaches and phases
- Factors influencing programme management
- Stakeholder participation in programme management
- Features of management of development programmes

Unit II: Conceptualizing Monitoring and Evaluation (M and E) of Programmes 25

- Concept, approaches and components
- Programme goals, activities and indicators
- M and E frameworks and designs
- M and E tools and techniques
- Participatory monitoring and evaluation

Unit III: Monitoring and Evaluation (M and E) of Communication for Development Programmes 20

- Trends in M and E of communication for development programmes
- Challenges, issues and strategies
- Approaches, methodologies and techniques
- Ethical issues in M and E

PRACTICAL

1. Develop skills in developing M and E frameworks 8
2. Learn the use of participatory techniques in monitoring and evaluation 6
3. Design tools for monitoring and evaluation 8
4. Case studies of monitoring and evaluation of development programmes 8

RECOMMENDED READINGS

- Mikkelsen, Britha, (2002), Methods for Development Work and Research. New Delhi: Sage Publications
- Dale R, (2004) Evaluating Development Programmes and Projects. New Delhi : Sage Publications
- Kumar and Hansra, (1997) Extension Education for Human Resource Development. New Delhi: Concept Publishers.

**DSE 17: APPAREL MARKETING AND MERCHANDISING
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY

LECTURES: 60

Unit 1: Fashion Trend Forecasting

9

- What is forecasting
- Steps in developing a forecast
- Sourcing and cataloguing of fabrics
- Seasonal trend analysis- colour, silhouettes and detailing, material and textures, print and graphics, accessories trends

Unit2: Fundamentals of Fashion Marketing

16

- Marketing environment
- 4P's of marketing
- Market: segmentation, targeting and positioning
- Consumer buying behaviour

Unit 3: Fashion Merchandising and Buying

12

- Concept of merchandising
- Merchandise category-staple, fashion and seasonal
- Assortment planning
- Buying organizations and techniques
- Inventory management
- Pricing objectives and methods

Unit4: Fashion Brand and Product Management

12

- Brand management: meaning and process
- Brand management concepts: brand name, brand attributes, brand identity and image
- Product classification and product lifecycle
- New product development: process and challenges

Unit 5: Introduction to Fashion Retailing

6

- The Global Impact of Fashion Retailing
- Types of Retail Institutions
- Retail Promotion-Advertising, sales promotion and personal selling

- Visual Merchandising in Retail
- Trends in Retail industry

Unit6: International Fashion Trends

5

- Marketing in a Global Environment: developed versus developing
- Global trends in Fashion Trade
- Global scenarios for a sustainable fashion industry

PRACTICAL

- Fashion forecast analysis:

12

To develop mood boards and theme boards

- colour
- silhouettes and detailing
- material and textures
- print and graphics
- accessories

To prepare a catalogue of various available/sourced fabrics

- Fashion Trend Report (Project) **4**
- Case Study of various Brands **2**
- Designing of promotional material **8**
 - Catalogue-Accessories, Children's wear, men's wear, women's wear
 - Brochures/Leaflets
 - Shopping/Carry Bags
 - Visiting Cards
 - Advertisement-For print media
- Analysing assortment plan for a store **4**

RECOMMENDED READINGS

- Kotler P., *Marketing Management*, XIIth edition
- Levy and Weitz, *Retailing Management*, VIth edition
- Stone Elaine (1985), *Fashion Buying*, McGraw Hill Inc.

DSE 18: APPAREL PRODUCTION
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Introduction to Pattern Making	10
<ul style="list-style-type: none"> • Importance of taking body measurements • Importance of patterns and pattern information • Methods of pattern making • Rules of pattern making • Principles of pattern making 	
Unit II: Preparatory Steps for Garment Construction	12
<ul style="list-style-type: none"> • Fabric grain • Preparatory steps- preshrinking, straightening and truing • Layouts for patterns- general guidelines, basic layouts- lengthwise, partial lengthwise, crosswise, double fold, open, combination fold • Pinning, marking and cutting • Layouts for fabrics- Unidirectional, bold and large prints, plaids, stripes and checks, various widths of fabrics 	
Unit III: Seams and Finishing of Raw Edges	12
<ul style="list-style-type: none"> • Types of seams- plain and its finishing, flat, ridge, decorative • Additional seam techniques: clipping, notching, grading, trimming, easing, under stitching, stay stitching, trimming a corner. • Crossway strips-importance and applications • Finishing of hemlines 	
Unit IV: Study of Garment Components: Application and Construction	15
<ul style="list-style-type: none"> • Classification and application of sleeves, cuffs, collars, necklines, plackets, pockets, yokes, trims and accessories 	
UNIT V: Design and Fit	11
<ul style="list-style-type: none"> • Designing for different figure types • Fit: Fitting area, fitting guidelines, fitting procedure 	

PRACTICAL

- Development and identification of seams, plackets, fasteners, 6
edge finishing (binding, facing), pleats and gathers
- Development of bodice, skirt and various sleeves and collars
- for self

8

- Develop style variations in adult bodice using dart manipulation on half scale standard block **3**
- Adaptation of basic skirt block into style variations (Half scale) **3**
- Construction of skirt for self **4**
- Construction of skirt top/ kurta for self **6**

RECOMMENDED READINGS

- Armstrong, H.J., 2009, Pattern Making for Fashion Design, Harper Collins Publishers Inc., New York.
- Stamper, A.A., S. H. Sharp and L.B. Donnell, 1986, Evaluating Apparel Quality, Fairchild Publications, America
- Liechty, E.G., Potterberg, D.N., Rasband, J.A., 2010, Fitting and Pattern Alteration : A Multi method Approach, Fairchild Publications, New York.

DSE 19: ERGONOMIC DESIGN
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Introduction

14

- Ergonomics- concept, significance, history and growth.
- Applications of ergonomics in design and work efficiency
- Anthropometric Measurements – history and its application in interior designing for different work areas and workers
- The bio- mechanisms of work as related to the user, the work and the environment

Unit II: The User

16

- Components of worker input- affective, cognitive, temporal and physical (physical, physiological, psycho-physiological aspects of work)

Unit III: Work Environment

16

- Functional design and arrangement of workplaces
- Work study
 - Time and motion study
 - Energy Studies
- Indices of indoor comfort: ventilation, lighting, temperature, noise.

Unit IV: Product Design and Development

14

- Concept, stages of design development
- Design communication - Specific product design features (controls and displays), socio psychological aspect of product designs.

PRACTICAL

1. Basic anthropometry- space norms/ standards **4**
2. Time and motion study **4**
3. Designing products – furniture (multipurpose and modular, etc.) **6**
4. Space design – preparing floor and elevation plans **10**
 - i. Kitchen
 - ii. Workstation
5. Portfolio of any product from ergonomic perspective **6**

RECOMMENDED READINGS

- Baiche B. and Walliman N. (eds.), 2006, Ernst and Peter Neufert Architects' Data, third edition, Blackwell Science: Indian reprint.
- Dalela S., 1983, Textbook of Work Study, 3rd Edition, Standard Publishers Distributors.
- Steidl and Bratton, 1967, Work in the Home. John Wiley and Sons. New York.

**DSE 20: HUMAN RESOURCE MANAGEMENT
(CREDITS: THEORY-4, PRACTICAL-2)**

THEORY

LECTURES : 60

Unit I: Human Resources Management 15

- Concept, scope and significance
- Organisation theories
- Human resource development and its challenges

Unit II: Functions of HRD 25

- Manpower planning
- Job analysis – job description and job specification
- Recruitment, selection and placement
- Performance appraisal and development
- Basics of employee compensation
- Training and development
- Motivation

Unit III: Human Resources Audit 20

- Concept
- Significance
- Process

PRACTICAL

- | | |
|---|----------|
| 1. Case study analysis and secondary research. | 7 |
| 2. Simulations/Presentations | |
| –HR Planning – Job Analysis and Design (Levels). | 8 |
| –Selection and Recruitment Strategies | 6 |
| –Interview techniques and skills (mock interview) | 5 |
| –Performance Appraisals – Methods | 4 |

RECOMMENDED READINGS

- Aswathappa. K, 2008, Human Resource and Personnel Management - Text and Cases, Tata McGraw-Hill Publishing Company Ltd, New Delhi.
- Gary Dessler, 2006, Human Resource Management, Prentice Hall of India Pvt. Ltd, New Delhi.
- Subbaroo, R., 2007, Personnel and HRM – Text and Cases, Himalaya Publishing House, New Delhi.

DSE 21: SPACE PLANNING AND DESIGN
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Basic Concepts in Space Planning and Design **20**

- Concept of house, housing, architecture;
- Functions and concept of adequacy of space
- Characteristics of space, principles of planning spaces; planning and designing
- Types of house plans: floor, elevation, structural drawings and perspective plans
- Types of houses: Row, Semi-detached, detached, independent houses or flats/apartments, multi-storeyed buildings
- Basic norms and space standards in operation – NBC and MPD
- Structuring spaces: indoor and outdoor; space articulation: zones in spatial planning.
- Analysis of furniture needs of different zones in a house/workstations
- Green rating systems – GRIHA and LEED.

Unit II: Structural Components of a Building- Innovations and New Materials **20**

- Conventional/Non-Conventional building materials, concept of pre-fabrication and modular construction
- Foundation – effectiveness of different types of foundations
- Damp-proofing and water-proofing methods
- Flooring - types
- Roofs- types
- Doors and windows- types, purpose of lintels and arches
- Staircase - types
- Partitions and panelling - types

Unit III: Interior Environment and Services: Climatic Considerations **20**

- HVAC
- Lighting: types of lighting systems, energy efficient lighting systems, user specific lighting for specific areas.
- Water and Plumbing systems: water supply system, waste water disposal, water harvesting.
- Insulation: sound and thermal – materials used and types of insulation
- Safety systems: fire protection – materials and systems used
- Security systems

PRACTICAL

1. Housing by-laws and symbols (architectural, plumbing, electrical, furniture), Steps in house planning, Different types of plans (site plan, layout plan, floor plan, elevation, section plan) **8**
2. Critical Evaluation of independent houses and apartments. **5**
3. Identification of building materials and evaluation concerning their characteristics (favourable and unfavourable features), uses and applications, cost and environment friendliness. **4**
4. Evaluation of buildings on energy efficiency parameters using green rating systems like GRIHA and LEED. **5**
5. Observe and prepare house plans for different income groups up to 100 sq.m area (Computer aided /manual). **8**

RECOMMENDED READINGS

- Adler, David., 2004, Metric HandBook planning and Design, Architectural press.
- Kumar, Sushil, 2008, Building Construction, Standard publisher.

DSE 22: PHYSIOLOGY AND PROMOTIVE HEALTH
(CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I : Physiology

Cardio- Respiratory Physiology **10**

- Blood -composition and function, anemia, jaundice
- Blood circulations (systemic, pulmonary, coronary and portal)
- Cardiac cycle, cardiac output, blood pressure
- Structure of lungs and its function
- Lung volume and capacities

Gastrointestinal Physiology **10**

- Structure of stomach, liver, gallbladder, pancreas and their functions
- Composition, function and regulation of GI secretions

Neuro- Endocrine Physiology **10**

- Organization of nervous system
- Actions and disorders of pituitary, thyroid and parathyroid, adrenal and pancreatic hormones

Renal and Reproductive Physiology **10**

- Structure of kidney and its function
- Physiology of menstruation and menopause
- Physiology of pregnancy and lactation

Unit II : Promotive Health

Concept of health, Disease and its Prevention **4**

- WHO definition of health, basic concept of disease and disease transmission,
- Definition of public health and disease prevention, concept of immunization and Immunization Schedule

Communicable Diseases **6**

- Causative organism, mode of transmission and prevention and control of tuberculosis , enteric fever, dengue fever, HIV/AIIDS

Non Communicable Diseases

- General risk factors and prevention of diabetes, hypertension and cancer

Mental Health **6**

- Psychosis, neurosis, drug abuse and alcoholism

Maternal Health **4**

- Antenatal care, family planning and contraception

PRACTICAL

1. Case study of Iron deficiency anemia, investigations and diagnosis. blood indices	2
2. Measurement of blood pressure by using sphygmomanometer.	2
3. Demonstration of normal chest X ray	2
4. Demonstration of reflex action	2
5. Demonstration of procedures of clinical examination to see for pallor , jaundice, edema and dehydration and their importance.	5
6. Latest imaging techniques like USG, CT, MRI the basic procedures	4
7. Basic first aid procedures, CPR, burns	6
8. Visit to a DOTS center	1
9. Preparation of a project on antenatal care for women	3
10. Preparation of a project on various contraceptive devices and understanding their basic mechanism of action.	3

RECOMMENDED READINGS

- Ganong WF (2003). *Review of Medical Physiology*, 21st ed. McGraw Hill.
- J.E. Park and K. Park (2009). *Park's Textbook of Preventive and Social Medicine*, 20th edition. M/s Banarsi Das Bhanot, Jabalpur.
- Ross and Wilson(1973). *Foundation of Anatomy and Physiology*, Medical Division of Longman Group Ltd.
- Yash Pal Bedi (1980). *A Handbook of Social and Preventive Medicine*, Atma Ram and Sons.

DSE 23: ADVERTISING AND PUBLIC RELATIONS (CREDITS: THEORY-4, PRACTICAL-2)

THEORY

LECTURES: 60

Unit I: Advertising

20

- Definition, types, origin and role
- Types of advertisements and their impacts
- Media for Advertising
- Ethical and legal aspects in advertising. Apex bodies in advertising

Unit II: Advertising and media

10

- Advertising agencies: organizational structure and functions
- Audience segmentation and advertising
- Media planning and advertising

Unit III: Public Relations (PR)

10

- Definition, origin, growth, importance
- Growth of PR in India
- Relationship between PR, Marketing, publicity and advertising
- Public Relations and Corporate Image Building

Unit IV: PR Tools and Techniques

20

- PR Tools and Techniques
- Functions of PR organizations
- Ethical and legal aspects in PR. Apex bodies in PR

PRACTICAL

30

1. Analyzing advertisements in different media.
2. Developing advertisements for print media
3. Analyzing and practicing public relations tools and techniques

RECOMMENDED READINGS

- Aggarwal, B.V. and Gupta, V.S. (2002) .*Handbook of Journalism and Mass Communication*.
New Delhi: Concept Publishing Company.
- Cutlip and Centre (1982). *Effective Public Relatio*. Newyork: Prentice Hall
- Jethwani, Verma, Sarkar (1994). *Public Relations: Concept, Strategies, Tools*. New Delhi: Sterling Press

DSE 24: NON FORMAL, ADULT AND LIFE LONG EDUCATION

(Credits: THEORY 4, PRACTICAL 2)

THEORY

LECTURES: 60

Unit I: Non Formal Education,

12

- Difference between formal and non-formal education, significance of non-formal education in India
- New education policy and NFE
- Scope of NFE in communities- techniques of community study, domains of non-formal education
- Organizing NFE programmes- target group; physical aspects; organizing and implementation
- Publicity of non-formal programme; planning and implementing publicity plan

Unit II: Adult Education

12

- Meaning, concept and scope of adult education
- Adult education programme in India
- Adult education and extension
- Characteristics of adult learners; difference between adult and child learning
- Learning theories; characteristics of adult learning, developmental tasks of adults
- Factors associated with adult learning.
- Motivating and sustaining adult learners

Unit III: Life Long Education

12

- Definition, meaning and concept of life long education
- Life Long education: historical and contemporary perspectives
- Components and objectives of life long education
- Significance of life long education in contemporary society
- Forms and domains of life long education
- Principles of life long education

Unit IV: Methods and Material for Non Formal/Adult/ Life Long Education

10

- Methods and approaches for organizing NFE programmes for different target groups
- Scope of communication methods and materials for NFE objectives

Unit V: Programmes of Non Formal/Adult/ Life Long and Continuing Education

14

- National and international programmes
- Local, State , National and international agencies- policy and programmes

- Monitoring and evaluation of NFE /Adult/ Life Long and Continuing Education programmes

PRACTICAL

1. Visits to different NGO's involved in Non Formal/Adult/Life Long Education **4**
2. Inviting experts from Government/Universities/ NGO's to share their experience of Non Formal/Adult/Life Long Education. **4**
3. Reporting of Literacy news, events from periodicals and news papers. **10**
4. Planning and organizing NFE/ continuing education programmes **8**
5. Monitoring and Evaluation of programmes **4**

RECOMMENDED READINGS

- Mishra. L., Adult Education, A study of the trials, APH Publishing Corporation, New Delhi.
- Chandra A., Shah A. 1987, Non Formal Education for All, Sterling Publishers, New Delhi.
- Singh M., 2007, New Companion to Adult Educators, International Institute of Adult and Life Long Education, New Delhi.
- Singh N. K, 2010, Adult Education, Saurabh Publishing House, New Delhi.
- Khajuria D. P., New Trends in Indian Education, Narendra Publishing House, Jalandhar.

**DSE 25: BASICS OF INTERIOR DESIGN AND HOSPITALITY MANAGEMENT
(CREDITS: THEORY 4, PRACTICAL 2)**

THEORY

LECTURE: 60

Unit: I Introduction to Foundation of Art and Design	5
<ul style="list-style-type: none">Objectives of design : beauty, functionalism and expressivenessTypes of Design: structural and decorative (naturalistic, stylized, abstract and geometric; modern and traditional design)	
Unit II Introduction to Elements and Principles of Design	20
<ul style="list-style-type: none">Elements of design: line, shape and form, space, pattern, texture, light, colorPrinciples of design: balance, harmony, scale, proportion, rhythm, emphasis	
Unit: III Introduction to components of Interior Design	20
<ul style="list-style-type: none">Surface in interior: wall finishes, floor finishes, ceiling finishesTypes of furniture and furnishingsTypes of accessories	
Unit: IV Introduction to Hospitality Industry	15
<ul style="list-style-type: none">Importance and functions of housekeeping department in hospitality industryFunctions and management of Food Service DepartmentIntroduction to front office department and personal managementThe functions of linen room and laundryIntroduction to travel and tourism	

PRACTICAL

1. Making drawing sheet on the following	8
<ul style="list-style-type: none">a) Types of linesb) Patternsc) Texturesd) Color	
2. Designs-Types	2
3. Making Accessories: application of elements and principles of design in creating	4
4. Visit to Architect offices/ Interior Designs/ sites/ ongoing completed projects exhibitions/house design by project.	6
5. Demonstration on flower arrangement in relation to hospitality industry	2
6. Demonstration on napkin folding	1
7. Demonstration on table setting in restaurants and banquettes.	2

8. Visit to hotels for providing exposure to various departments of hotels to documents records functions. 3
9. Collect information regarding places of tourist interest from various states of India. 2

RECOMMENDED READINGS

- Andrews, S. (1982), "Hotel Front Office Training Manual". Tata McGraw Hill Publishing Co. Ltd, New Delhi.
- Andrews, S. (2000), "Food and Beverage Management," Tata McGraw Hill Publishing Co. Ltd, New Delhi..
- A.K.Bhatia, (1983), Tourism Development: Principles and Practices, 2nd Edition, Stealing Publishing Co., (Unit I-VII, IX), New Delhi.
- Andrew Sudhir (1985), Hotel Housekeeping- training manual. Tata McGraw-Hill Publishing Co. Ltd., New Delhi.
- Botter and Lockart (1961), Design for you, John Willey and Sons Inc. New York
- Bhatt Pranav and Goenka Shanita (1990), The Foundation of Art and Design, Lakhani Book Depot, Bombay.
- Birrel, Verla Leone, (1967), Color and Design: A Basic Text (Vol.I and II) Digest Submitted in requirement for the degree of education in Teacher College Columbia University.
- Craig Hazel and Rush Ole (1962), Homes with Character, Boston: D.C. Health and Co., U.K.
- Duncan, Miller (1949), Interior Decoration, London, The Publications, New York,
- Faulkner Sarah and Faulkner Ray (1960), Inside Today's Homes, Holt Rinchart and Winston Inc., New York.
- Gilliat Mary (1981), The Decorating Book, Dorling Kinderley Limited, London.
- Goldstein H. and Goldstein V. (1967), Art in Everyday Life, Oxford and IBH Publishing Co., New Delhi
- Gravas Maitland (1951), The Art of Color and Design (2nd Edition), McGraw Hill books Comp. Ltd., New York.
- HalseAltert O. (1978), The Use of Color in Interior (2nd Ed.), McGraw Hill books Comp. Ltd., New York.
- Rutt, Anna Hong (1949), Home Furnishing, John Willey and Sons Inc., New York.
- Gandotra, V.; Shukul, M. and Jaiswal, N. (2010), Introduction to Interior Design and Decoration, Dominant Publishers and Distributors, Delhi.
- Seetharaman P, and Pannu, P (2005), Interior Design and Decoration, CBS Publishers and Distribution, New Delhi.

DSE 26: BASICS OF NUTRITION EPIDEMIOLOGY AND ANTHROPOLOGY
CREDITS: THEORY 4 PRACTICAL 2)

THEORY

LECTURES: 60

Unit I: Epidemiology in Nutrition

12

- Definition and scope of epidemiology, health and nutritional epidemiology
- Determinants of MCH and indicators commonly used to track maternal/ child health and nutrition
- Definitions of commonly used epidemiological indicators like crude death rate, IMR, U5 MR, birth rate, fertility rate, maternal mortality rate/ratio etc..
- Disease frequency, causes and prevention - population at risk, incidence and its comparison.
- Epidemiological methods and types
 - a. Observational, experimental, and potential errors.
 - b. Case fatality, mortality.

Unit II: Epidemiology of Major public Health and Nutrition Problems in India

12

- Status of maternal and child nutrition/health as per latest surveys
- Prevalence and utilization rates of key indicators/interventions for women, children, adolescence: globally and in India;
- Studying the progress of key indicators of vulnerable age groups based on disaggregated data rural vs urban, male vs female, SC, ST, OBC and wealth quintiles. (NNMB, SRS, DLHS, CES, MICS, NFHS I, II and III data) and calculating per annum progress/deterioration.
- Vital statistics and causes of IMR, NMR, MMR, under 5 mortality rates and its relationship with nutrition.
- Emergence of evidence based interventions for improving maternal and child health and nutrition from global and national epidemiological data base.

Unit III: Epidemiology of Major Micronutrient deficiencies

12

- Status of micronutrient deficiencies in mothers and children as per latest surveys
- Prevalence and utilization rates of key indicators/interventions to improve micronutrient deficiencies for women, children, adolescence: globally and in India;
- Studying the progress of key indicators of vulnerable age groups based on disaggregated data rural vs urban, male vs female, SC, ST, OBC and Wealth quintiles. (NNMB, SRS, DLHS, CES, MICS, NFHS I, II and III data) and calculating per annum progress/deterioration.
- Vital statistics and Causes of IMR, NMR, MMR, Under 5 Mortality rates and its relationship with nutrition.
- Emergence of evidence based interventions for improving Maternal and Child Health and Nutrition from global and National epidemiological data base.

Unit IV: Introduction of Anthropology and Its Relevance to Nutrition**12**

- Definition and application of the discipline of anthropology as applied to:
 - a. Health and Disease
 - b. Nutrition and Nutritional status
- Historical development of nutritional anthropology: evolution from a biomedical to a socio cultural view of nutrition.
- Emic vs Etic perspective.
- Factors affecting food choices and household level practices
 - a. Ecological and geographical
 - b. Poverty, economic status
 - c. Socio cultural; education, ethnic and religious factors.
 - d. Sensory qualities of foods and culture
 - e. Girl child and women
 - f. Intra household distribution of food

Unit V: Cultural Interpretation of Malnutrition and Rural Urban differences**12**

- Community beliefs about cause prevention and treatment of under nutrition and micro nutrient deficiencies (PEM,IDA, VAD, IDD) in children and women in developed and developing countries.
- Ethno-physiology: cultural perceptions of body physiology in different stages of the life cycle (child, adolescent, adult) and its impact on home level nutrition and health care.
- Comparing rural vs urban differences as regards :
 - a. Time and activity patterns; workload of men and women and its impact on food intake and nutritional status (especially vulnerable groups)
 - b. Health care seeking behaviors – treatment of illness.
 - c. Complementary feeding and breast feeding practices; family support.
 - d. Seasonal variations in malnutrition and morbidity.

PRACTICAL**30**

1. Assessing the epidemiology of a nutrition and health problems in vulnerable groups of the population and tracking progress in the last decade
 2. Comparing the frequency of occurrence/exposure of nutrition and health
 3. Study of Nutrition Anthropology/Research tools and methods
- Brief overview of QL tools (purpose and technique) :
 - a. Focus group discussion
 - b. Open ended interviews – in depth interviews and key informant interviews
 - c. Various types of observation methods.
 - Importance of integrating qualitative and quantitative methods (QL and QN);
 - Overview of concept of participatory research (PR) as distinct from qualitative

research

- a. Principles of PR
 - b. Features of good PR
 - c. Introduction of few PR methods (eg. Community mapping, preference ranking, Venn Diagrams, seasonality diagram)
- Data collection in the area of health and nutrition using above methods
 - Presentation of report

RECOMMENDED READINGS

- Basic Epidemiology, R Bonita, R Beaglehole, T Kjellström, 2nd Edition , WHO, 2006
http://whqlibdoc.who.int/publications/2006/9241547073_eng.pdf
- Moon G, Gould M (2000). Epidemiology: An Introduction. Philadelphia, Open University Press.
- Lillian Langseth (1996). Nutritional Epidemiology: Possibilities and Limitations. Washington DC, ILSI Press.
- Pelto GH, Pelto RJ and Masser E (1989). Research Methods in Nutritional Anthropology, Tokyo, Japan: The United Nations University
- Mother Care (1990). Behavioural Determinants of Maternal Health Care Choices in Developing Countries, Mother Care, USA.
- Koblinsky M (1993). The Health of Women : A Global Perspective. (1993) NCIH, Washington, DC, USA.
- Lawrence, M. (2008).Public Health Nutrition
Lal S. (2009). Textbook of Community Medicine. CBS Publication

DSE 27: COMMERCIAL CLOTHING
(CREDITS: THEORY 4 PRACTICAL 2)

THEORY

LECTURES: 60

Unit I: Introduction to Commercial Clothing **20**

- Principles and Components of Clothing Construction
 - Anthropometric measurements and taking accurate body measurement
 - Requirement for good garment construction
 - Types of needles and threads
 - Sewing problems
 - Drafting and its importance
- Principles and methods of grading and sizing

Unit II: Selection of Fabric and Accessories **10**

- Selection of appropriate apparel fabrics for girls, women, boys and men's wear
- Use of accessories and trimmings in clothing

Unit III: Sourcing, Spec Sheets and procurement **15**

- Sourcing of Fashion materials
- Preparation of specification sheet
- Procurement of Fashion Materials

Unit IV: Fashion Promotion by Visual Merchandizing **15**

PRACTICAL

1. Drafting and Construction of : **21**
 - Kameez
 - Salwaar
 - Churidar
 - Trousers
 - Saree Blouse
 - Shorts
 - Nightgown
2. Different methods of sizing and grading **9**

RECOMMENDED READINGS

- Armstrong, H.J., 2009, Pattern Making for Fashion Design, Harper Collins Publishers Inc., New York.
- Stamper, A.A., S. H. Sharp and L.B. Donnell, 1986, Evaluating Apparel Quality, Fairchild Publications, America
- Burns leslie , Nancy B. 1997, The Business of Fashion- Designing Manufacturing and Marketing, Fairchild publications. USA.

**DSE 28 : PATTERN MAKING AND DRAPING
(CREDITS: THEORY 4 PRACTICAL 2)**

THEORY

LECTURES: 60

Unit I: Introduction to Pattern Making

8

- Tools, terms and techniques
- Fabric terms
- Dart and grain line

Unit II : Basic Upper and lower sloper

16

- Principles in pattern making for
 - Upper garment
 - Lower garment
 - Sleeves
 - Collars
 - Dresses

Unit III: Introduction to Draping

10

- Basic Preparation – Equipment, dress form and preparation of muslin
- Basic Patterns – Basic Bodice, Basic Skirt
- Pattern Making Principles

Unit IV: Designing of the Bodice

16

- Dart Variation
- Princess line
- Added fullness
- Necklines including cowl

Unit V: Design Variations

10

- Midriff
- Yokes
- Collars – Flat, Roll and Stand collars

PRACTICAL

1. Development of the Bodice Block and its variations through pattern making **15**
 - Dart manipulation
 - Contouring
 - Fullness Principles

Skirts, Sleeves and Collars (two each)
2. Development of basic patterns (Bodice and Skirt) Block through draping **7**
3. Adaptation and Construction of any two designs by draping **8**

RECOMMENDED READINGS

- Kiisel K. (2013), Draping: The Complete Course, Laurence King Publishing.
- Armstrong, H.J. (2009), Pattern Making for Fashion Design, Harper Collins Publishers, INC, New York.

SKILL ENHANCEMENT COURSES (SEC)

SEC 1: HOME BASED CATERING (CREDITS: THEORY 4)

THEORY

LECTURES: 60

Unit I. Introduction to Food Service

6

- Factors contributing to the growth of food service industry
- Kinds of food service establishments

24

Unit II. Food Production

- Menu planning: importance of menu, factors affecting menu planning, menu planning for different kinds of food service units
- Food purchase and storage
- Quantity food production: standardization of recipes, quantity food preparation techniques, recipe adjustments and portion control
- Hygiene and sanitation

Unit III. Resources

8

- Money
- Manpower
- Time
- Facilities and equipment
- Utilities

Unit IV. Planning of A Food Service Unit

22

- **Preliminary Planning**

Survey of types of units, identifying clientele, menu, operations and delivery

- **Planning the Set Up:**

- a) Identifying resources
- b) Developing project plan
- c) Determining investments
- d) Project proposal

RECOMMENDED READINGS:

- West B Bessie and Wood Levelle (1988) Food Service in Institutions 6th Edition Revised By Hargar FV, Shuggart SG, and Palgne Palacio June, Macmillian Publishing Company New York.
- SethiMohini (2005) Institution Food Management New Age International Publishers
- Knight J B and Kotschevar LH (2000) Quantity Food Production Planning and Management 3rd edition John Wiley and Sons
- Philip E Thangam (2008) Modern Cookery for teaching and Trade Part I & II Orient Longman
- Taneja S and Gupta SL (2001) Entrepreneurship development, Galgotia Publishing

SEC 2: MATERNAL AND CHILD NUTRITION (CREDITS: THEORY 4)

THEORY

LECTURES: 60

Unit I

16

- Nutritional needs during pregnancy, common disorders of pregnancy (Anaemia, HIV infection, pregnancy induced (hypertension), relationship between maternal diet and birth outcome.
- Maternal health and nutritional status, maternal mortality and issues relating to maternal health.

Unit II

14

- Nutritional needs of nursing mothers and infants, determinants of birth weight and consequences of low birth weight, Breastfeeding biology, Breastfeeding support and counseling

Unit III

20

- Infant and young child feeding and care - current feeding practices and nutritional concerns, guidelines for infant and young child feeding, breast feeding, weaning and complementary feeding.
- Assessment and management of moderate and severe malnutrition among children, micronutrient malnutrition among preschool children
- Child health and morbidity, neonatal, infant and child mortality, IMR and U5MR; link between mortality and malnutrition;

Unit IV

10

- Overview of maternal and child nutrition policies and programmes.

RECOMMENDED READINGS

- Wadhwa A and Sharma S (2003). Nutrition in the Community-A Textbook. Elite Publishing House Pvt. Ltd. New Delhi.
- Park K (2011). Park's Textbook of Preventive and Social Medicine, 21st Edition. M/s Banarasidas Bhanot Publishers, Jabalpur, India.
- Bamji MS, Krishnaswamy K and Brahman GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
- National Guidelines on Infant and Young Child Feeding (2006). Ministry of Women and Child Development, Government of India.

SEC 3: EARLY CHILDHOOD CARE AND DEVELOPMENT (CREDITS: PRACTICAL 4)

PRACTICAL: 60

I: Core concepts in ECCE 32

- Significance of development in the early years
- Core concepts in ECCE
- Care and education as crucial needs between birth and six years
- International and national ECCE programmes

Visit to Early ECCE Centre: crèche/ preschool

Workshops to understand children and document methods of playful interactions to foster development in all domains through sessions on

- Understanding childhood competencies
- Developing teaching learning materials (Aids/Pupets/Portfoli)
- Enhancing social and language skills
- Music, movement and drama for children

II Contexts of Care and Development 28

- Concept of care and development
- Value of family and need for extra familial programmes
- Value of play, responsive environments and learning
- Curriculum, pedagogy, culture and inclusion

Identifying ways to assess and record progress of children

Methods and tools to evaluate ECCE programmes

Develop a prototype format for setting up an ECCE Centre

RECOMMENDED READINGS:

- Aggarwal, J. C. (2007). *Early Childhood Care and Education: Principles and Practices*. Shipra: New Delhi.
- Arni, K. and Wolf G. (1999). *Child Art with Everyday Materials*. TARA Publishing.
- Mohanty, J. Mohanty, B. (1996). *Early childhood care and Education*. Deep and Deep Publication, New Delhi.
- Morrison, G. S. (2003). *Fundamentals of early childhood education*. Merrill/Prentice Hall: Virginia
- Singh, A. (1995). *Playing to Learn: A training manual for Early Childhood Education*. M. S. Swaminathan Research Foundation.
- Swaminathan, M. (1998). *The First five Years*. Sage Publications.

**SEC 4: SELF DEVELOPMENT AND WELL-BEING
(CREDITS: PRACTICAL 4)**

PRACTICAL: 60

1. Understanding the self – theatre approach	8
2. Interview of two adolescents –1 male, 1female, about his/her sense of self	8
3. An exercise in self-reflection from early childhood to adolescence	12
4. Case profile of an adolescent	4
5. Workshop on self-development	8
6. Analysing images in media to understand the self	8
7. Organize small group discussions to arrive at indicators of sense of well-being	8
8. Learning about assessment of well-being using a standardized test	4

RECOMMENDED READINGS

- Kakar, S. (1978). The Inner World. Delhi: Oxford University Press.
- Kakar, S. and Kakar, K. (2007). The Indian: The Portraits of a People. London: Penguin/Viking.
- Rice, F. P. (2007). Adolescent: Development, Relationship and Culture.
- Santrock, J. (2010). Life Span Development: A Topical Approach, New Delhi: Tata McGraw Hill.

**SEC 5: TRAINING AND CAPACITY BUILDING
(CREDITS: PRACTICAL 4)**

PRACTICAL: 60

- | | |
|---|-----------|
| 1. Concept of Training | 20 |
| <ul style="list-style-type: none">• Training and learning• Types of training• Role of training and capacity building in HRD | |
| 2. Training Methods and Techniques | 20 |
| <ul style="list-style-type: none">• Tools and techniques for training• Evaluation of training programs for different stakeholders (grassroot functionaries, managers, policy makers) | |
| 3. Application of Training Methods and Techniques | 20 |
| <ul style="list-style-type: none">• Develop training modules for specific target groups and learning goals.• Agencies involved in training and development- NGOs, GOs and Corporate | |

RECOMMENDED READINGS

- Lyton R and Pareek U. (1990). Training for Development. New Delhi, Vistaar Publications.
- Subedi, N R, (2008). Advocacy Strategies and Approaches: A Training of Trainers Manual. International

**SEC 6: ADVERTISING AND SOCIAL MARKETING
(CREDITS: PRACTICAL 4)**

PRACTICAL: 60

1. Advertising 32

- Concept, types appeals and role of advertisements
- Analysis of advertisements in media- print, audio and video
- Designing advertisements for media- print, audio and video
- Audience segmentation and its importance in advertising
- Laws, standards and regulations and ethics

2. Social Marketing 28

- Concept of social marketing
- Social marketing and advertising
- Innovative strategies in social marketing

RECOMMENDED READINGS

- Aggarwal, B.V., Gupta, V.S. (2002) *Handbook of Journalism and Mass Communication*.
Concept Publishing Company, New Delhi
- Kotler Philip, Roberto Eduardo L .(1989). *Social marketing: Strategies for Changing Public Behaviour*. Free Press , New York, 1989
- Kotler, Philip, Andreasen Alan (1987). *R Strategic Marketing for non-profit Organizations*. Englewood cliffs, New Jersey, Prentice Hall Inc.
- Jena, B., Pati R.(1986) *Health and family Welfare Services in India*. Ashish, New Delhi
- Maitra, T., (1985). *Public Services in India*. Mittal , New Delhi

SEC 7: SURFACE ORNAMENTATION
(CREDITS: PRACTICAL 4)

PRACTICAL: 60

• Fabric manipulation –cuts, removal of threads	8
• Surface Decoration - Embroidery, Ari work, Embellishments	12
• Design through color application	12
○ Painting	
○ Dyeing- Tie and dye, Batik	
○ Printing- Discharge, Resist, Block, Screen, Stencil	
• Thread structure- macramé, braiding, lace making (crochet, tatting)	8
• Surface layering	8
○ Applique- simple, cut, felt	
○ Quilting- hand and machine	
○ Pleats	
○ Tucks	
• Product development using the above design exploration techniques	12

RECOMMENDED READINGS:

1. Juracek, A. Judy, 2000, Soft Surface, Thames and Hudson Ltd.
2. Milne D'Arcy Jean, 2006, Fabric Left Overs, Octopus Publishing Group Ltd.
3. Singer Margo, 2007, Textile Surface Decoration-Silk and Velvet, A&C Black Ltd.

SEC 8: CAD IN TEXTILES AND APPAREL
(CREDITS: PRACTICAL 4)

PRACTICAL: 60

Unit 1: Basics of Design Software	16
<ul style="list-style-type: none">• Corel Draw• Adobe Photoshop	
Unit 2: CAD in Apparel Design	16
<ul style="list-style-type: none">• Basics of Tuka CAD/Tukatech software/Reach CAD<ul style="list-style-type: none">- Basics of pattern making- Grading- Layouts- Marker making	
Unit 3: CAD in Textile Design	16
<ul style="list-style-type: none">• Colour graphics and colour harmonies• Motif development• Placements• Usage in textile design (weaves, prints, embroidery)	
Unit 4: Fashion Details through CAD	12
<ul style="list-style-type: none">• Technical drawings of fashion details• Mood Boards/Theme Boards	

SEC 9: RESOURCES AND SUSTAINABLE DEVELOPMENT

(CREDITS: PRACTICAL 4)

PRACTICAL: 60

- Introduction to concept and dimensions of sustainable development, major conferences and agreements on sustainable development - Power point presentation and group discussion **4**
- MDG's and challenges to sustainable development (Climate and Global Change, Energy, **8**
Water Resources, Population, Economic Development, etc.); (Case study approach) **10**
- Water/Air analysis - Lab testing and class presentation **10**
Experiential learning through field visit: Sewage treatment plant/ Vermicomposting unit/ Air Monitoring Laboratory/ Environment Pollution Detecting Laboratory/ Rain Water Harvesting System/ Biogas Plant/ Green Building/ Ecotel Hotel/ CPCB/ Greenhouse/ Solid Waste Management Plant/ hydro/thermal power plants/ Environmental Agencies or National Parks/ Sanctuaries/ Biosphere Reserves. **8**
- Development of awareness programme on sustainable consumption practices for masses . **8**
- A Survey related to environmental issues amongst the citizens: Data to be collected and analyzed statistically with suggestions for environmental management Or Secondary data collection/Case profile of any one govt. or non-govt. organization that contributed to environmental protection in India. **12**

SEC 10: AUTOCAD AND SPATIAL PLANNING
(CREDITS: PRACTICAL 4)

PRACTICAL: 60

1. Basic concepts in space planning and design: concept of house, housing, architecture; Functions and concept of adequacy of space; characteristics of space, principles of planning spaces; planning and designing; types of house plans: floor, elevation, structural drawings and perspective plans; types of houses - row, semi-detached, detached, independent houses or flats/apartments, multi- storeyed buildings **8**
2. Structural components of a building- innovations and new materials: Foundation; Flooring; Roofs; Doors and Windows; lintels and arches; Staircase; partitions and panelling **4**
3. Housing by-laws and symbols (architectural, plumbing, electrical, furniture), Steps in house planning, Different types of plans (site plan, layout plan, floor plan, elevation, section plan) **8**
4. Critical evaluation of independent houses and apartments. **8**
5. Identification of building materials and evaluation concerning their characteristics (favourable and unfavourable features), uses and applications, cost and environment friendliness - survey **8**
6. Evaluation of buildings on energy efficiency parameters using green rating systems like GRIHA and LEED – Portfolio/ Field visit/ case study **8**
7. Observe and prepare house plans for different income groups up to 100 sq.m area (computer aided /manual). **16**

SEC 11: UNDERSTANDING PSYCHOLOGY
(CREDITS: THEORY-4)

THEORY

LECTURES: 60

Unit I: Introduction **14**

- Concept and definition of psychology: perspectives on behavior.
- Major subfields of psychology; psychology in modern India;
- Biological basis of human behavior.

Unit II: Perception: **16**

- Perceptual processing, role of attention in perception, perceptual organization.
- Perception of depth, distance and movement; Illusions.

Unit III: Learning: **14**

- Classical conditioning, operant conditioning, observational learning; learning strategies; learning in a digital world

Unit IV: Memory: **16**

- Models of memory: levels of processing,
- Parallel Distributed Processing model,
- Information processing, Reconstructive nature of memory; Forgetting, Improving memory

RECOMMENDED READINGS:

- Baron, R. and Misra. G. (2013). Psychology. Pearson.
- Ciccarelli, S. K., and Meyer, G. E. (2010). Psychology: South Asian Edition. New Delhi: Pearson Education
- Passer, M.W. and Smith, R.E. (2010). Psychology: The Science of Mind and Behaviour. New Delhi: TataMcGraw-Hill
- Woolfolk, A., Misra, G., &Jha, A. K. (2012). Fundamentals of Educational Psychology. Pearson

SEC 12: COMPUTER APPLICATIONS IN COMMUNICATION AND MEDIA DESIGN (CREDITS: PRACTICAL 4)

PRACTICAL: 60

1 Computer Application Designing 20

- Concept of computer and designing
- Need of computer application designing in extension and communication
- Scope of computer application designing for extension and
- Communication
- Use of computer application designing for extension and communication

2. Computer Software for Designing 16

Use of the following software for making IEC material and teaching aids

- Word Processor
- Presentation Software
- Corel Draw
- Paint
- Photoshop
- PageMaker

3. Issues in Use of Computer Designing 24

Issues and challenges in use of computer for designing in extension and communication

Learning Experiences

- Preparing various IEC material with the use of different software
- Arranging expert talk on computer designing
- Viewing different computer designs.
- Preparing charts/poster/flash cards etc with the help of computer
- Preparing designed brochures, leaflets with the help of various software.
- Preparing presentation with the help of presentation software on development programmes.

RECOMMENDED READINGS

- Kihrwadkar A, Pushpanadan, (2006), Information and Communication Technology in Education, Sarup and Sons, Delhi
- Sampath K (1998), Introduction to Educational Technology, Sterling Publishers Pvt. Ltd
- SagarKrshna (2007), ICTs and Teacher Training, Authors Press, Delhi
- Valerie Q (1998), Internet in a nutshell, Shroff Publishers and Distributors Pvt. Ltd, Delhi

**SEC 13: INFORMATION, EDUCATION AND COMMUNICATION
MATERIALS FOR DEVELOPMENT
(CREDITS: PRACTICAL 4)**

PRACTICAL: 60

1. Concept of IEC Material

8

- Meaning of IEC Material
- Importance and scope of IEC material for development.
- Different types of IEC materials for development.
- Role of IEC material for development.

2. Guidelines for Development of IEC Materials

24

- Selection of IEC material
 - Strength and Limitations of Various IEC materials
 - Criteria for selecting IEC material
 - IEC materials for combining for greater impact
- Developing a creative brief
 - Importance of creative brief.
 - Elements of creative brief
- Preparing prototype IEC material
 - Guidelines for developing new IEC material
 - Qualities of effective IEC material
- Pretesting the prototype of IEC material
 - Assessing the pretested results and revising IEC materials
 - Monitoring the use and impact of IEC materials.

3. Various Types of IEC Materials for Development

28

- Graphics and audio visual charts, posters, flashcards, flexes, flip books, pamphlets, leaflets, brochures, booklets, modules, manuals
- Mass Media: IEC materials for radio, television, newspapers and magazines
 - Radio scripts writing
 - T.V. programme scripts writing
 - News paper, magazine article writing

Learning Activities

1. Content analysis of various IEC material for development messages.
2. Designing layouts for various IEC materials
3. Writing scripts on selected developmental issues for radio, and T.V programmes.

4. Viewing and recording various types of television and radio programmes
5. Preparation of various graphic (IEC) materials
6. Identifying various IEC materials used by NGO's and GO's for development work.

RECOMMENDED READINGS

- Enderson (1972): Introduction to communication theories and practices, Cummings publishing house, California
- Bernice Hurst (1996): The handbook of communication skills, Kogan Page Limited, London.
- Chandra A, Shah A, Joshi U (1989) : Fundamentals of teaching home science, Sterling publishers, New Delhi
- Wittich and Schuller (1967) : Audio visual materials, Havper and Row publications, London
- Keval Kumar (2010) : Mass communication in India, Jaico publishing house, Ahmedabad

**SEC 14: HOUSE KEEPING
(CREDITS: THEORY 4)**

THEORY

LECTURES: 60

Unit I Housekeeping Department

10

- Role of housekeeping in hospitality industry
- Layout of housekeeping department
- Planning, organization and communication of housekeeping activities.
- Co-ordination with other department
- Roles/responsibilities of personnel in the housekeeping department

Unit II Cleaning Activity and Pest Control

10

- Cleaning agents- selection and use for different surface
- Cleaning equipment- selection, care and maintenance
- Cleaning techniques- daily, weekly, yearly-procedure for cleaning of guest room and public area
- Types of common pests and effective methods to control

Unit III In House accidents, Fire safety and First Aid

14

- Types of accidents commonly occur in hospitality institution, methods to avoid and/or reduce.
- Fire safety measures in the institution
- First aid for commonly occurring health problems.

Unit IV: Linen and Uniform Room

10

- Layout/plan and physical features of linen and uniform room
- Types of linen and uniform, their selection
- Storage procedure for linen and uniforms
- Stock determination, control and distribution, record keeping, inventory taking
- Linen and uniform room staff and their duties

Unit V: Laundry

16

- Types of laundry systems In House, contracted out and linen on hire
- Layout plan and physical features of a laundry

- Laundry procedure: collection, sorting and making, stain removal and prepare washing, extractions and drying, ironing and folding, inspection, packaging, storage delivery
- Laundry supplies and materials: water, soaps, detergents, bleaches, laundry blues, stiffening agents and iron
- Dry cleaning procedure

Learning Activities

1. To learn room cleaning procedure). List down the daily, weekly and yearly tasks.
2. To learn the cleaning procedure and care of glass articles.
3. To learn cleaning procedure and care of metals like brass and silver articles.
4. To learn the procedure of cleaning wash basin (ceramic) and sinks (stainless steel).
5. To learn the method of cleaning lampshades, fans and other electrical fixtures.
6. To learn the method of bed making.
7. To learn the method of bathroom cleaning.
8. To learn the method of setting maid cart (trolley).
9. To learn the procedure of preparing room inspection check list.
10. To learn the method of laundering cotton, woollen, silk and synthetic garments.
11. To learn methods of removing stains from various linens and uniforms.
12. To learn method of starching linens and uniforms from different types of starches
13. To learn the method of bleaching linens and uniforms.

RECOMMENDED READINGS

- Asler, (1970): Management of Hospitality Operations, Bobbs Merrill, London.
- Andrew Sudhir (1985): Hotel Housekeeping- Training Manual. Tata McGraw-Hill Publishing Co. Ltd., New Delhi.
- Charavarti, B.K.: A Technical Guide to Hotel Operation, Metropolitan Book Co. Pvt. Ltd., and New Delhi.
- David, M. Allen: Accommodation and Cleaning Service, Vol. 1 and 2. Hutchinson Publishing Group 17-21 Conway Street, London.
- Gladwell Derek: Practical Maintenance of Equipment for Hoteliers, Licenses and Caterers, Hutchinson and Co. Pvt. Ltd.
- Hurst Rosemary: Accommodation Management for Hostel and Residential Establishment.
- Hurst Rosemary: Service and Maintenance for Hotel and Residential Establishment. William Heinemann Ltd., 10 Upper Grosvenor Street, London.

SEC15: TRAVEL AND TOURISM
(CREDITS: THEORY 4)

THEORY

LECTURES: 60

Unit I: Introduction to Travel and Tourism

12

- a. Meaning , significance and history of travel and Tourism
- b. The tourism industry its systems, components, infrastructure
- c. Types of tourism (Ecotourism, Heritage tourism, Medical tourism, Educational tourism etc.)
impact of tourism

Unit II: Tourism Organization and Legislation

12

- a. Tourism organization
 - Needs for Tourism Organization
 - International Organization
 - Government Organizations in India
 - Private Sector Organization in India
 - Non-Government Organization
 - Other important organization
- b. Tourism legislation
 - Laws pertaining to trans-board movements such as visa regulation, customers, foreign exchange, immigration.
 - Laws related food and beverages
 - Laws related to transport
 - Laws related to accommodation
 - Consumer protection laws related to health , hygiene quality
- c. Travel and tourism Department of Government- Central and States: programmes and policies

Unit III: Travel Agent and The Tour Operator

16

- Travel Agent: types of travel agencies, functions of travel agency, how to setup travel agency ,sources of income for a travel agency
- The tour operator: types of tour operators, packages tour, guides and escorts.
- Formalities and regulations for tourism: passport and visa, health regulations for International travel, customs regulations, emigration and immigration, taxes paid by travelers and travel insurance
- Customer service skills: importance of customer satisfaction, telephone skills/etiquettes phonetic alphabet, city codes, airport names and code of India and

abroad, country codes and currency codes, products knowledge, handling customers complaints

Unit IV: Itinerary Planning and Tourism Marketing:

20

- a) Itinerary planning: basic information planning the itinerary resources for planning itinerary, calculation of tour cost
- b) Tourism marketing: tourism market segmentation, designing a tour brochure, e-marketing, guidelines for tourist

Places of tourist interest: places of tourist interest at International and National level for various purposes, guidelines for tourist.

Learning Activities

1. Learn to read railway Time Table.
2. Learn to see railway time table, flight's time table etc on internet and how to do booking, ticketing.
3. Prepare a list for places of interest in India and abroad under each type of tourism.
4. Prepare a list of tour operators working at local, National and International level.
5. Visit various tour organizers and study their set up, management and functioning.
6. Prepare brochure for places of tourist interest at local and National level. prepare one-one brochure for at least one place falling under each type of tourism.
7. Visit airports to understand the functioning of local and International air travel.
8. Prepare itinerary for tour organization.
9. Visit Hotels to see various types of accommodation facilities.
10. Prepare a brochure to express Do's and Don'ts for a tourist.
11. Visit places of tourist interest; assess their present status for their maintenance, aesthetics, services, security and expectations from the visitors and other such factors.

RECOMMENDED READINGS

- Dharmarajan.S. and R. Seth, Tourism in India-Trends and Issues, Har Anand Publications Pvt. Ltd. New Delhi, First edition.
- Gupta. S., World Tourism in New Millennium, ABD Publishers, Jaipur, First edition.
- Kamra, K.K and M. Chand, Basics of Tourism-Theory, Operation and Practice, Kanishka Publishers, New Delhi. First Edition. 2006.
- Maken. D. Strategies and Planning in Tourism and Industry, Adhyayan Publishers and Distributors, Delhi, First edition.
- Puri M. and G.Chand, Tourism Management, Pragn Publications, New Delhi. First Edition. 2006.
- Sharma. R.B., World Tourism in 21st Century, Alfa Publications, New Delhi, First edition.
- Roday .S, Biwal .A. and Joshi. V., Tourism Operations and Management, Oxford University Press Publication , New Delhi, First edition 2009

SEC 16: NUTRITION HEALTH COMMUNICATION
(CREDITS: THEORY 4)

THEORY

LECTURES: 60

Unit I: Concepts and Theories of Communication in Nutrition – Health 10

- Definitions of concepts
- Formal – non-formal communication, participatory communication
- Theories of NHC
- History, need and relevance of NHC in India

Unit II: The Components and Processes of NHC 10

- Concept of Behavior Change Communication (BCC) from imparting information to focusing on changing practices.
- Components of BCC: sender, message, channel, receiver
- Various types of communication – interpersonal, mass media, visual, verbal/ non-verbal.
- Features of successful BCC
- Market research and social marketing

Unit III: Programs and Experiences of NHC Global and Indian perspective 16

- NHC in developed and developing nations: some examples
- Evolution of NHC in India: traditional folk media to modern methods of communication.
- Traditional folk media in Gujarat and its influence on NHC.
- Communication for urban and rural environment; for target specific audience.

Unit IV: Nutrition - Health – Communication in Government Programs and NGOs 12

- Evolution of NHC/ IEC in Government nutrition health programs - shift in focus from knowledge gain to change in practices.
- Overview of NHC/IEC in government programs (Activities, strengths and limitations)
 - a. NHC in ICDS
 - b. Nutritional counseling in micronutrient deficiency control programs: control of IDA, IDD, VAD.
- Strengths and limitations of NHC imparted in NGO programs

Learning Activities 12

1. Visit to an ongoing NHC program in ICDS: one rural, one urban. (eg: *matrumandal* meeting or *mahilamandal* meeting or nutrition week celebration .
2. Visit to a health centre (ANC clinic run by Government health department and observe quality of counseling imparted to pregnant women (especially

awareness of anemia, importance of IFA). [All the above will be assessed by the students for the plus and minus points from the NHC perspective].

3. Visit to Mamta Day (one rural one urban) and observe quality of counseling being given to pregnant and lactating women, mothers of preschool children, use of Mamta card and other aspects.
4. To visit an NGO either rural or urban and observe one NHC program implemented for women, school children or adolescence (For all the above observation appropriate observation check lists will be made and used)
5. Improving the NHC-To conduct brief interviews with service providers in all the above programs and to compare the observations, discuss the strength and weakness of the NHC activities carried out.
6. Based on the above observations and interviews
 - a. To design and plan NHC sessions on a specific nutrition topic for any vulnerable group: children, adolescents, women taking into account all components of NHC.
 - b. Submit the visual, the script of the session: Hindi / Gujarati , the communication strategy and evaluation plan.
 - c. To implement one NHC session in the field and evaluate it as per guidelines provided.

RECOMMENDED READINGS

- Field Guide to Designing Communication Strategy, WHO publication-2007.
- Behaviour Change Consortium Summary(1999-2003)
www1.od.nih.gov/behaviourchange
- Communication Strategy to Conserve/Improve Public Health., John Hopkins University-Centre for Communication Programmes.
- Michael Favin and Marcia Griffiths 1999, Nutrition Tool Kit-09-Communication for Behaviour Change in Nutrition Projects. Human Development Network-The World Bank- 1999
- Harvard Institute of International Development (1981) Nutrition Education in Developing Countries, New York: Oelgeschlager Gunn and Hain Publishers Inc.
- Hubley J (1993) Communicating Health. London: Teaching Aids at Low Cost,London, UK.
- Academy for Educational Development (1988). Communication for Child Survival, AED,USA.
- Facts for Life (1990). A Communication Challenge. UNICEF / WHO / UNESCO / UNFPA, UK.

SEC 17: BIOPHYSICS
(CREDITS: THEORY 4)

THEORY

LECTURES: 60

Unit I: Basic Aspects of Biophysics

16

- Measurements and units
 - a. Systems of unit
 - b. Fundamental and derived units
 - c. Mass and weight
 - d. Density and specific gravity
 - e. Pressure
 - f. Energy and units
 - g. Molarity, normality, angstrom
- Heat and Light
 - a. Three states of matter and its conversion
 - b. Heat and temperature
 - c. Thermometer and scales
 - d. Expansion
 - e. Specific heat
 - f. Latent heat
 - g. Modes of transfer of heat
 - h. Electromagnetic radiations and its properties
- Electricity
 - a. Sources of electricity
 - b. Ohm's law and units
 - c. Calculation of using electrical energy
 - d. Alternate and direct current
 - e. Fuses and circuit breakers

Unit II: Biophysical Phenomena: Concepts and Application in the Field of Nutrition 12

- Viscosity
- Surface tension
- Adsorption
- pH and buffer
- Colloids

Unit III: Principles and Working of Basic Instruments

14

- Balances

- pH-meter
- Centrifuge
- Ovens
- Muffle furnace
- Vacuum pumps
- Pressure cookers and autoclaves
- Viscometer

Unit IV: Principles and Working of advanced Instruments

18

- Advanced Instruments
 - a. Colorimeters
 - b. Spectrophotometers
 - c. Fluorimetry
 - d. Chromatography
- Use of clinical equipment-Applications
 - a. DEXA
 - b. BMD
 - c. Ultrasound and Sonography
 - d. CT Scan
 - e. MRI

RECOMMENDED READINGS

- Wilson K and Walker J (1994). Principle and Technique of Practical Biochemistry. Published by Foundation Books, New Delhi.
- Neilson S (2002). Introduction to the Chemical Analysis of Foods. Published by CBS and Distributors, New Delhi.
- Srivastava VK and Srivastava KK (1987). Introduction to Chromatography – Theory and Practice. Published by S. Chand & Co., New Delhi.
- Holma DH and Peck H (1993). Analytical Biochemistry (2nd ed.). Published By Langham Scientific and Technical, U.K.
- Pomeranz Y and McLoan CE (1996). Food Analysis: Theory and Practice (3rd ed.). Published by CBS, New Delhi
- Raghuramulu N, Nair M and K Kalyanasundaram S (1983). A Manual of Laboratory Techniques. NIN, ICMR.
- Srivastava AK and Jain PC (1986). Chemical Analysis: An Instrumental Approach (2nd ed). Published by S. Chand Company Ltd., New Delhi.
- Peet LJ (1970). Household Equipment (6th ed.). Published by John Wiley & Sons, New York 9. Van Zante J (1970). Household Equipment Principles. Published by Prentice Hall, New York

**SEC 18: LIFE SKILLS EDUCATION
(CREDITS: THEORY 4)**

THEORY

LECTURES: 60

Unit 1: Concept and Meaning of Life Skills

20

- Definitions and concept of life skills and life skills education.
- Importance in daily living; Criteria for using life skills.
- Evolution of life skills
- Core life skills- classification and concept
- Theoretical perspectives and models to understand life skills education.

Unit 2: Components for Planning and Organizing Life Skills Programs

20

A. Understanding Group Characteristics and Needs

- Life skills in context: importance of focusing on contextual specificities and cultural ideologies as important aspects affecting individual ideas.
- Focusing on cultural practices that govern everyday life.
- Analyzing the gender nuances that exist within the group.
- Self components to imparting life skills program: critical thinking skills, decision making skills, interpersonal communication skills, coping with stress and emotions; self management skills, etc.

B. Importance of communication in imparting life skills education

- Concept and Importance of communication
- Aspects to develop social potentials (effective listening, speaking, building and maintaining relationships, understanding group dynamics and functioning in groups, delegating responsibilities)

C. Core Approaches and Strategies to Implement Life Skills Program

- Understanding and developing self-skills/potential: self-awareness, self-esteem selfconfidence, creative thinking, interpersonal skills, etc.
- Use of participatory techniques and methods: Individual exercises, Group activities, games etc.
- Communicating with the audience: receiving feedback, handling questions, etc.

D. Organizing a Life Skills Program

- Planning a need based viable life skills program (select components)
- Determining the purpose, collecting materials, organizing content.
- Getting prepared for the presentation: psychological level
- Delivering the presentation

E. Life Skills Assessment

- Scales and quantitative techniques
- Qualitative approaches

Unit 3: Life Skills and Youth Development

20

- Adolescence and Youth- Definitions, Conception- socio cultural perspectives
- Youth demographics and role in society
- Challenges of adolescence and youth development
- Formal and Non formal approaches to youth development
- Positive Youth Development

Learning Experiences

Students may be given several in house experiences to observe and evaluate existing life skills programs. They may also get experiences to interact with experts in the discipline through panel discussions and similar organized experiences.

- Visiting and observing Life skills education programme
- Critique formal and non-formal life skills programmes
- Evaluate approaches and activities of life skills education for different target groups

RECOMMENDED READINGS

- Agochiya D. 2010, Life Competencies for Adolescents. Training Manual for Facilitators, Teachers and Parents. Sage Publications.
- Dakar Framework for Action, (2000). Education for All: Meeting our Collective Commitments, Dakar, Senegal
- Peace Corps, OPATS.2001, Life Skills Manual.
- Robbins S.P, Hunsaker P.L, Training in Interpersonal Skills (5theds), PHI Learning Pvt. Ltd.
- National Aids Control Organization, 2008, Adolescence Education Programme, Life Skills Development.
- Nair. A. Radhakrishnan, (2010). Life Skills Training for Positive Behaviour, Rajiv Gandhi National Institute of Youth Development, Tamil Nadu.
- Nair .V. Rajasenan, (2010). Life Skills, Personality and Leadership , Rajiv Gandhi National Institute of Youth Development, Tamil Nadu.
- Url: multimedia.peacecorps.gov/.../pdf/.../M0063_lifeskillscomplete.pdf
- Url: www.nacoonline.org/.../AEP%20-%20Teachers%20Workbook.pdf

SEC 19: ACTIVITIES AND RESOURCES FOR CHILD DEVELOPMENT – I

(CREDITS: PRACTICAL 4)

PRACTICAL: 60

1 Infancy and Toddlerhood

12

Development during the first two years is rapid and hence the topic is subdivided in four parts. Each part focuses on a particular age group that would enable caregivers to understand the specific needs of growing children. Knowledge of needs would help them to plan appropriate activities.

Introduction

Characteristics of human childhood.

- From state of helplessness to gradual control over body and development of understanding of immediate environment.
- Development through interaction of maturation and stimulation from environment, exploration.
- Importance and ways of meeting child's psychological needs to promote feelings of security, trust and acceptance.

Activities according to developments for various age groups.

- 0 – 6 months
- Activities for stimulation and sensory motor experiences with emphasis on seeing, hearing, touching, feeling sensation and movements.
- 7 – 12 months
- Integration of experiences involving more than one sense to deepen sensory – motor experiences. Promote manipulation, concept formation, communication and perceptual discrimination.
- 13 – 24 months
- Promotion of co-ordination and control of body movements, gross and fine motor skills. Strengthening concept formation, imagination and communication through language. Promotion of problem solving, environment to explore and satisfy curiosity and develop confidence.
- 25 – 36 months
- Improvement in body movement and communication skills, social skills and concept formation.

2 Creativity

8

Concept of creativity and highlights of the role of creative expressions in overall development of children.

- Creative expressions, Meaning and definition of creativity expressions.
- Role of teacher in planning and fostering creative expressions.
- Creative expressions through a variety of media i.e. painting, printings, modeling, cutting, pasting, blocks puppetry, music movement, drama and language.

3 Art Activities

12

- Painting and graphics
 - Painting with brush, drawing with crayons, chalk, rangoli on floor, finger painting. (Some special characteristics of this medium).
 - Values, materials required, use of substitutes from indigenous materials.
 - Teacher's role in conducting activities.
 - Stages in child art.
- Tearing, cutting, pasting and collage, mural
 - Values, materials required and Teacher's role in conducting activities.
 - Development stages.
- Modelling
 - Values, special characteristics of this medium.
 - Techniques used, rolling, pressing, pinching, pasting, folding.
 - Materials required i.e. clay, dough, plasticine, thick paper folding, stocking paper on hollow objects i.e. balloon cardboard cartoons, paper machine, wire, rope.
 - Teacher's role.
- Printing
 - Types of printing i.e. block, string, leaf stencils, spray, crumpled paper, different textured surfaces.
 - Values, materials required techniques.
 - Teacher's role stages in printing.
- Blocks
 - Some special features of this medium.
 - Types of blocks: hollow large blocks, unit blocks and small blocks.
 - Stages in block play.
 - Values, materials and accessories for block play.
 - Teacher's role.

4 Other materials

8

- Sand
 - Characteristics of the medium.
 - Values, materials required and teacher's role.
- Water
 - Characteristics of the medium.
 - Values, materials required and teacher's role.

5 Music and Rhythm

8

Importance of music in child's life and teacher's role in providing appropriate experiences.

- Criteria for selection of songs.

- Creating environment for musical growth.
- Developmental stages in musical activities.
- Rhythmic movements body and with simple musical instruments.

6 Puppetry and Creative Drama

12

- Puppetry
 - Characteristics of puppetry as a medium.
 - Values of puppetry
 - Kinds of puppets : finger, glove, stick, and string puppets etc.
 - Basic staging techniques, use of lights, and simple sound affects in puppetry.
- Creative Drama
 - Meaning and values.
 - Techniques involved in creative drama e.g. rhythmic movements, pantomime, characterization, improvisation story building.
 - Process of scripting for puppet plays and creative drama.

Learning Experiences

Infancy and Toddlerhood

- A file to be prepared to list activities appropriate for age groups – 0 – 6 months, 7 – 12 months, 13 to 20 months and 25 – 36 months.
- Students be encouraged to observe materials available in the locality.
- Develop play materials suitable for each age group.
- List activities, which can be used for working with different age groups :
 - 0 – 6 months
 - Prepare materials and design activities for seeing, hearing touching and feeling. –Sensation and movement for soothing movements and exercises.
 - 7 – 12 months
 - Prepare materials and design activities for touching and feeling sensation and movement, and manipulation.
 - 13 – 14 months
 - Identify activities for gross motor development and prepare play materials available in the locality.
 - Prepare play materials and list activities promote manipulation sensory experiences, concepts and language.

Art Activities

- A few suggestions are given under each category as guideline students be encouraged to explore experiment with each media and understand the characteristics of each medium.
- Samples of each be included in the resource file which each student is expected to maintain along with description of values materials and technique used.
- Difficulty level of each activity be considered and decide its suitability for different age groups.

- Painting and graphics :
- Prepare a variety of brushes from different types of brooms, cotton, wool, strips of cloth, feather etc.
- Where necessary demonstration of preparation of materials required for conducting activity be included, i.e. paint with starch, paste etc.
- Painting with different brushes, crayon design given a paint wash, etching, blow painting, block painting, finger painting, Painting on wet paper, painting masks.
- Drawing with crayons, dry and wet chalk.
- 6 to 8 years.
- Wet paints, painting masks brush music.

Tearing cutting and pasting

- 3 – 5 years
Tearing with all fingers, tearing with thumb and two fingers and used in holding pencil, tearing on straight line, curved line.
- 6 – 8 years
Tearing circular rings starting from one corner of the page till center of page, Making designs.
- 3 – 5 cutting and pasting
Cutting a design, pasting, piece of paper, cloth, sticks leaves collage, mosaic.
- 6 – 8 years
Tearing and cutting designs, creating designs. Pasting mosaic, paper balls, glass pieces etc.

Modeling

- 3 – 5 years
Modeling with clay, dough, plasticine, saw dust, providing accessories.
- 6 – 8 years
Besides above medium. Modeling with straw, match sticks rope, wire, thick paper fold and clay sculpture.
Plasting papers on a balloon, when dry remove air and colour to create accessories for clay sculpture/crumpled paper pasting designs.

Printing

- Printing with strings, leaf, blocks, stencil printing, thumb, finger, spray painting.
- Keeping coins, leaves with veins below paper and gently colouring with crayon.
- Older children to make their own stencils.
- Printing on large pieces of paper (group activity).

Decorating Empty Plastic Bottles, Boxes

Masks etc. Music and movements

- Learning to sign rhymes songs with actions.
- Folk songs.

- Making simple musical instruments.
- Rhythmic body movements according to different beats and sounds.
- Dancing according to rhythm.
- Musical instruments from waste like old pots, tins, sticks.
- Older children to form an orchestra.

Puppetry and Creative Drama

- Puppetry stick, singer, table top, rhythm, puppets glove puppets.
- Learning basic manipulation skills.
- Use of music, voice modulation and sound effects.
- Making sets and backgrounds.
- Scripting for short puppet play.
- Creative drama
- Body movements and co-ordination.
- Games like mirroring, blind fold and moving etc.
- Theme based dramatization
- Use of simple costumes and make-up to enhance characterization e.g. use of eye make-up to show different emotions or making simple caps and paper clothes for characters.
- Scripting simple dramatic presentation.

RECOMMENDED READINGS

- Beaty, J.J. (1996). *Preschool Appropriate Practices*. London : Harcourt Brace College Publishers.
- Carol, S. and Barbour, N. (1990). *Early Childhood Education : An Introduction : IInd Edition*.
- Contractor, M. (1984). *Creative Drama and Puppetry in Education*, Delhi : National Book trust of India.
- Johnson, A.P. (1998). *How to use Creative Dramatics in the Classroom*. Childhood Education, 2 – 6.
- Kaul, V. (1991). *Early Childhood Education Programme*. New Delhi : NCERT.
- Lasky, L. and Mukerjee, R. (1980). *Art Basic for Young Children*, Washington, D.C., NAEYC.
- Moomaw, S. (1984). *Discovering Music in Early Childhood*. Bostom : Allyn and Bacon, Inc.
- Swaminathan, M. (1984). *Play Activities for Young Children*, New Delhi : UNICEF.
- Swaminathan, M. (1991). *Play Activities for Young Children* . UNICEF.
- Taylor, B.J. (1985). *A Child Goes Forth Minneapolis* : Burgess Publishing Co. (6th Ed.).

SEC 20: ACTIVITIES AND RESOURCES FOR CHILD DEVELOPMENT II (CREDITS: PRACTICAL 4)

PRACTICAL: 60

1 Communication – Language Arts

8

- The unit emphasizes role of communication and experiences to be provided for language development.
- Importance of communication.
- Promotion of language skills : listening, speaking, reading and writing.
- Experiences for language development :
 - Infants and toddlers: sound games, talking, picture books, simple instructions, singing, finger plays and experiences.
 - Children from 3 – 8 years.
 - Listening: Information, appreciative and critical or analytical.
 - Conversation in group.
 - Picture, object discussion.
 - Reading and storytelling.
 - Narration of stories, events in proper sequence.
 - Describing observations.
 - Poems, riddles.
 - Following teacher's instructions.
 - Opportunities for interaction with peer group.

2 Literature for Children

12

- Understanding need for literature for children.
- History of children's literature in India.
- Types of literature, appropriateness and criteria for selection.
- Toddlers: picture books.
- Books for preschoolers: picture books, story books, information and concept books, number and alphabet books, poems.
- Books for 6 – 8 years: Story books – fables, folk tales, fairy tales and modern fantasy. Information and concept books, i.e. how it works, tell me why, encyclopedias, poems.
- Physical characteristics of good books.
- Characteristics of good story.
- Values of storytelling.
- Techniques of storytelling: reading of story books, narration without aids but with help of modulation of voice and gestures, flash cards, flannel board, puppets.
- Criteria for selecting poems.

3 Mathematics

20

- Material to promote mathematical concepts :

- Infancy and toddlerhood

Use of number vocabulary in informal, incidental learning situations e.g. more, less big small, less more, many etc. singing rhymes and action songs.

- 3 – 5 years

- Counting: concept of cardinality, use of number rhymes, action songs and number readiness vocabulary.
- Concept of relative location.
- Concept of relative sizes.
- Concept of classification: formation of sets : objects pictures or according to other characteristics.
- Duplicating pattern, series.
- Concept of seriation – ordering objects, on any criterion, size, weight, volume etc.
- Comparison of sets of one Vs many, more Vs few or more Vs less etc. as well as equal sets.
- Identification and description of shapes.
- Using ordinals to name position in a series.
- Introducing numbers through concrete materials, oral work activities and worksheets, 1 – 9 only.
- Understand additions and subtraction using manipulative and concrete objects to illustrate simple stories.
- 6 – 8 years
- Recognizing and reading numerals 1 – 9.
- Place value formation of tens, hundreds using manipulatives.
- Ordinals 1st to 20th.
- Operations of addition, subtraction and multiplication.

4 Environmental Science and Social Studies

20

- Social structures – Family – School – Community.
- Social Relationships within family and in the community with special emphasis on gender equality and self.
- Various communities – their traditions and festivals – significance of celebrating festivals.
- Importance of conservation – pollution – water, food, air.
- Role of transport in modern living – brief history of transportation – use of animals for transport – means of transport on land, water, and air.
- Communication systems – from bird and messengers to post, telegraph, telephone, radios and television to computers.

- Role of teacher in sensitizing the children in becoming ware of the world around. Understand inter dependence and develop appreciation of various sections and occupations of all members and communities.

Science Activities

- What is science for young children?
- Science activities in everyday living
- Goals and Values of science experiences

Learning Experiences

- Compile songs for finger play and lullabies suitable for infants and toddlers.
- Prepare picture books for infants and toddlers.

Note: Micro teaching technique i.e. peer group teaching be used to develop teaching skills. One student will play role of teacher and others as children. At the end of the activity, the peer group will evaluate. Class can be divided in groups of 5 to 6 students.

- Microteaching for conducting group conversation.
 - Display of bulletin board for picture talk.
 - Development of questioning skills involving what, who, when, where, why questions as well as questions to give scope to children for imagination and creative expression.
- Develop riddles for language and concepts.
- Recite poems with expression and actions.
- Evaluate a few stories.
- Micro teaching for story telling with and without teaching aid.
- Teaching aids for storytelling.
- Preparation of materials and games to promote various mathematical concepts.
- Plan field trips to various places, institutions, parks, Zoo, Dams, Television stations, post office etc.
- Write stories and songs reinforcing messages of hygiene and cleanliness.
- Collect traditional stories – folk songs from different parts of the country and different communities.
- Prepare a file of activities that can be conducted in the area of science, maths and language using materials available from nature.
- Games – compilation of outdoor games. Games for cognitive development.

Evaluations

Two theory tests and two practical assignments

RECOMMENDED READINGS

- Adler, S., Farrar, C. (1983). A Curriculum Guide for Developing Communication Skills in Preschool Child, Illinois: Thomas Publications.
- Batra, P. (2010) Social Science Learning in Schools. Sage Publications.
- Beghetto, R., Kaufman, J. (2010) Nurturing Creativity in Classroom. Cambridge
- Bruke, E. (1990). Literature for the Young Child, Needham Heights: Allyn and Bacon.
- Carol, S. and Barbour, N. (1990). Early Childhood Education : An Introduction, IInd Edition.
- Chambers, P. (2008) Teaching Mathematics. Sage publications.
- Dave, A. (1987). Pre-Mathematics Experiences for Young Children.
- Deviries, R., Kohlberg, L. (1987). Programs of Early Education, New York: Longman.
- Gelman, R. Gallistel, C.R. (1986). The Child's Understanding of Numbers, Cambridge: Harvard University Press.
- Huck, C. (1971). Children's literature in elementary school. New York: Holt, Rihehart and Winston.
- Kaul, V. (1991). Early Childhood Education Programme, New Delhi: NCERT.
- Krishna Kumar (1986). The Child's Language and the Teacher, New Delhi: UNICEF.
- Krishna, S., Menezes, J. and Jayaram, K. (1993). Set of Ten Books on Environment Studies. New Delhi 110 016. The Schools Environment Studies Network, C-1/4, Safdarjung.
- Kurien, S. (1988). Helping Children Learn, Bombay. Orient Longman.
- Lays, Pamela (1985). Teaching through Environment, London: Allyn and Bacon.
- Leeper, S. Witherspoon, R., Day B. (1984). Good Schools for Young Children, New York: MacMillan.
- Liebeck, Panmala, How Children Learn Mathematics, London : Penguin.
- Lloyd, I., Richardson, K. (1980). A Mathematics Activity for Early Childhood and Special Education, New York : McMillan Publishing Company.
- Margelin, E. (1982). Teaching Young Children at School and Home, New York: MacMillan.
- Maxim, G. (1985). The Very Young. Belmont, California: Wadsworth, Publishing Company.
- Robinson, H. (1985). Exploring Teaching. London: Allyn and Bacon.
- See Felett, C. (1980). A Curriculum for Preschools, Columbus: Charles E. Merrill Publishing Company.
- Swaminathan, M. (1984). Play Activities for Young Children, New Delhi: UNICEF.
- Swaminathan, M. (1991). Play Activities for Young Children: UNICEF.
- Tarang :UllasmayAbhyas (1995).
- Taylor, B.J. (1988). A Child Goes Forth. (6thed.). Minneapolis: Burgess Publishing Co.

SEC 21: PRODUCT DEVELOPMENT IN TEXTILES AND APPAREL
(CREDITS: PRACTICAL 4)

PRACTICAL: 60

1. Concept Development

8

- Meaning and importance
- Key elements in product designing- fashion trends , product function and added value

2. Design Instigation

12

- Developing creative idea based on concept
- Making flat sketches of developed idea

3. Analysis and Selection

12

- Sourcing and Procurement-Concept and Definitions
- Need and methods of Sourcing, Major producers and suppliers of raw materials- Dyes, Yarns, Fabrics and Trims
- Review of designs for individual strengths relation to the concept and their estimated cost
- Finalizing the blue print of the final product

4. Development Process

8

- Conceptualization of the details of the product
- Prepare/ develop specification sheets of the selected product

5. Fabrication

12

- Construction of the final product
- Display of the article

6. Cost Analysis

8

Economic analysis of products

- Calculation of monetary values of different determinants of total product cost
- Labour cost calculation

Learning Experiences

- Students will visit various production unit and analyze product development process
- Develop prototypes of good quality marketable products

RECOMMENDED READINGS

- Frings G.S. (2001) "Fashion from Concept to Consumer" Prentice Hall, New Jersey.
- Gordon L.J. (1961) Economics for Consumer, New York, American Book Company.
- Sundram and Rudradatt (1986) Indian Economy, Sultanchand and Sons.
- Wingate J.W., Schaller E.O. and Miller F. L.(1972) Retail Merchandise Management, Prentice Hall, New Jersey.

**SEC 22: IMAGE STYLING
(CREDITS: PRACTICAL 4)**

PRACTICAL: 60

- | | | |
|----|---|-----------|
| 1. | Physical traits and personality | 8 |
| | <ul style="list-style-type: none">- Body and figure types- Body proportion- Figure type and problems- Personality | |
| 2. | Figure analysis – identifying you physical self and facial features | 8 |
| 3. | Physical attractiveness – its determinants and social effects | 8 |
| 4. | Concepts and principles of design | 8 |
| | <ul style="list-style-type: none">- Effects of design elements and principles on clothing- Fashion fundamentals- Development of future fashion trends of garments and accessories | |
| 5. | Personality and dressing | 10 |
| | <ul style="list-style-type: none">- Principles of illusion dressing- Personal style expression- Etiquette and personal grooming- Colour and personal style analysis | |
| 6. | Identifying clothing needs and wardrobe planning | 12 |
| | <ul style="list-style-type: none">- Wardrobe analysis and organization- Wardrobe style identification- Organization and categorization of wardrobe- Elements of a basic wardrobe- Tips of garment maintenance | |
| 7. | Personal shopping | 6 |
| | <ul style="list-style-type: none">□ Preview of apparel / accessory stores ad brands in context to style, size and budget□ Optimizing wardrobe | |

RECOMMENDED READINGS

- Funder, D.C. 2001, The Persoality Puzzle (2nded), New York: W.W. Norton
- Phares, J.E. 1991, Introduction to Personality (3rded), New York: Harper Collins

SEC 23: FASHION ILLUSTRATION (CREDITS: PRACTICAL 4)

PRACTICAL: 60

- | | |
|---|-----------|
| 1. Introduction to fashion illustration | 8 |
| -vocabulary | |
| - tools | |
| - body proportion and balance | |
| 2. Human anatomy | 12 |
| □ Developing a fashion figure male, female and children | |
| □ Basic figure drawing varying postures | |
| □ Rapid sketching, working from photograph | |
| □ Sketching body features | |
| □ Stylization of model figures | |
| 3. Creating textures using different mediums | 12 |
| □ Collecting and studying textures | |
| □ Working with different media and techniques to simulate textures | |
| 4. Rendering fabric textures | 12 |
| • Sketching silhouettes in various fabric textures (fur, satin, denim, tissue, silk, chiffon, knits, plaids, corduroy and others) | |
| 5. Garment types and its features in appropriate textures and styles | 16 |
| □ Garment details (neckline, sleeves, pockets etc.) | |
| □ Sketching garments | |
| □ Design a costume for a specific event or profession | |

RECOMMENDED READINGS

- Abling, B. 2001, Fashion Rendering with Colour, Illustrated ed. Prentice and Hall.
- Ireland, P.J. 1996, Fashion Design Illustration- Men, B.T. Batsford, London.
- Ireland, P.J. 2003, Introduction to Fashion Design, B.T. Batsford, London.

**SEC 24: NGO MANAGEMENT AND CSR
(CREDITS: THEORY 4)**

THEORY

LECTURES: 60

Unit 1: Concept of NGO

8

- Meaning of NGO and GO
- Difference between Government Organizations and NGO
- Characteristics of good NGO
- Structure of NGO
- Functions of NGO
- Historical Perspective of NGO
- Advantages of NGO
- Present status of NGO
- Contribution of NGO in the Development

Role of Development Communicator in developing NGO

Unit 2: Starting of NGO

24

- Steps for starting NGO
- Registration of NGO
- Selection of Personnel
- Training of Personnel
- Proposal writing under NGO
- Identifying Funding agencies
- Resource Mobilization
- Planning, Implementation and Evaluation strategy under NGO
- Documentation
- PR in NGO

Unit 3: NGO Management

16

- Organizational types and structures
- Managing people and teams in NGOs
- NGO management competencies
- Applying NGO principles and values
- Accountability and impact assessment for NGOs

Unit 4: Problems of NGO**6**

- Training
- Recruitment
- Funding
- Resource Mobilization
- Documentation

Learning Experiences**6**

1. Visit of Local NGO
2. Studying the annual report of NGOs
3. Studying the ongoing Activities
4. Studying the problems

RECOMMENDED READINGS

- S. Chandra, Guidelines for NGO Management in India (2003), Published by Kanishka Distributors, New Delhi
- D. Lewis, Management of Non Governmental Development Organization (2001), Second Edition, Published by Routledge, Newyork.
- A. Abraham, Formation and Management of NGOs (2003), Third Edition, Published by Universal Law Publishing Co. Pvt Ltd., New Delhi.
- Sundar, P. 2013, Business and Community: The Story of Corporate Social Responsibility in India , New Delhi, Sage Publication.
- Aggarwal, S.2008, Corporate Social Responsibility in India, Sage publication Pvt. Ltd.

GENERIC ELECTIVES (GE)

GE 1: HUMAN NUTRITION (CREDITS: THEORY 4, PRACTICAL 2)

THEORY

LECTURES: 60

Unit I: Basic Concepts in Nutrition

10

- Basic terms used in nutrition
- Understanding relationship between food, nutrition and health
- Functions of food-Physiological, psychological and social
- Basic food groups and concept of balanced diet

Unit II: Nutrients

25

Energy- Functions, sources and concept of energy balance.

Functions, Recommended Dietary Allowances, dietary sources, effects of deficiency and/ or excess consumption on health of the following nutrients:

- Carbohydrates and dietary fibre,
- Lipids
- Proteins
- Fat soluble vitamins-A, D,E and K
- Water soluble vitamins – Thiamin, Riboflavin, Niacin, Pyridoxine, Folate, Vitamin B₁₂ and Vitamin C
- Minerals – Calcium, Iron, Zinc and Iodine

Unit III: Nutrition during Lifecycle

25

Physiological considerations and nutritional concerns for the following life stages:

- Adult man / woman
- Preschool children
- Adolescent children
- Pregnant woman
- Nursing woman and infant

PRACTICAL

1. Identifying Rich Sources of Nutrients

6

- Energy ,Protein, Iron, Calcium, Fiber, Vitamin A, Ascorbic acid

2. Introduction to Meal Planning

24

Basic food groups

Use of food exchange list for planning nutritious diets /Snacks for

- Adult man / woman of different activity levels
- Pre-school children
- Adolescent children
- Pregnant woman
- Nursing woman

RECOMMENDED READINGS

- Wardlaw and Insel MG, Insel PM (2004). Perspectives in Nutrition. Sixth Edition, McGraw Hill.
- Srilakshmi B (2012). *Nutrition Science*. 4th Revised Edition, New Age International Publishers.
- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Phoenix Publishing House Pvt. Ltd.
- ICMR(2010) Recommended Dietary Allowances for Indians. Published by National Institute of Nutrition, Hyderabad.
- Chadha R and Mathur P eds. (2015). Nutrition : A Lifecycle Approach. Orient Blackswan, New Delhi.
- Seth V and Singh K (2006). *Diet Planning through the Life Cycle: Part I Normal Nutrition. A Practical Manual*. Elite Publishing House Pvt. Ltd. New Delhi.
- Gopalan C, Rama Sastri BV, Balasubramanian SC (1989) *Nutritive Value of Indian Foods*. National Institute of Nutrition, ICMR, Hyderabad.

GE 2: NUTRITION: A LIFESPAN APPROACH
(CREDITS: THEORY 4, PRACTICAL 2)

THEORY

LECTURES: 60

Unit I: Principles of Meal Planning

10

- Balanced diet
- Food groups
- Food exchange list
- Factors effecting meal planning and food related behaviour.
- Dietary guidelines for Indians and food pyramid

Unit II: Nutrient Requirements

8

- Concept of dietary reference intakes
- Overview of methods for assessment of nutrient needs

Unit III: Nutrition for Adulthood and Old Age

12

- Adult: Nutrient requirements for adult man and woman, RDA, nutritional guidelines, nutritional concerns, diet and lifestyle related diseases and their prevention
- Elderly – physiological changes in elderly, RDA, nutritional guidelines, nutritional and health concerns in old age and their management, factors contributing to longevity

Unit IV: Nutrition During Pregnancy and Lactation

12

- Pregnancy – physiological changes in pregnancy, RDA, nutritional guidelines, nutritional needs, effect of nutritional status on pregnancy outcome, optimal weight gain and its components, nutrition related problems in pregnancy and ways to control them.
- Lactation – Physiology of lactation, RDA and nutritional needs of a nursing mother, nutritional guidelines

Unit V: Nutrition During Childhood

18

- Growth and development, growth reference/ standards, RDA, nutritional guidelines, nutritional concerns and healthy food choices
 - Infants
 - Preschool children
 - School children
 - Adolescents

PRACTICAL

Unit I: Introduction to Meal Planning

6

- a) Use of food exchange list
- b) Planning balanced diets
- c) Preparing balanced diets of different costs

Unit II: Planning and Preparation of Diets and Dishes for**20**

- Young adult
- Pregnant and lactating woman
- Preschool child
- School age child and adolescents
- Elderly
- For families

Unit III: Planning Complementary Foods for Infants**4****Liquids/Semisolids/Solids****RECOMMENDED READINGS:**

- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). *Textbook of Nutrition and Dietetics*. Phoenix Publishing House Pvt. Ltd.
 - Wardlaw GM, Hampi JS, DiSilvestro RA (2004). *Perspectives in Nutrition*, 6th edition. McGraw Hill.
 - ICMR (2011) *Dietary Guidelines for Indians*. Published by National Institute of Nutrition, Hyderabad.
 - ICMR (2010) *Recommended Dietary Allowances for Indians*. Published by National Institute of Nutrition, Hyderabad.
- Chadha R and Mathur P eds.(2015) *Nutrition: A Lifecycle Approach*. Orient Blackswan. New Delhi.
- Seth V and Singh K (2006). *Diet Planning through the Life Cycle: Part I Normal Nutrition. A Practical Manual*. Elite Publishing House Pvt. Ltd. New Delhi.
 - Gopalan C, Rama Sastri BV, Balasubramanian SC (1989) *Nutritive Value of Indian Foods*. National Institute of Nutrition, ICMR, Hyderabad.

GE 3: ENTREPRENEURSHIP FOR SMALL CATERING UNITS
(CREDITS: THEORY 4 , PRACTICAL 2)

THEORY	LECTURES: 60
Unit I. Introduction to Food Service Units	2
<ul style="list-style-type: none"> • Origin of food service units • Kinds of food service units 	
Unit II. Menu Planning	8
<ul style="list-style-type: none"> • Importance of menu, • Factors affecting menu planning, • Types of menu 	
Unit III. Organization and Management	6
<ul style="list-style-type: none"> • Principles of management • Functions of management/ manager 	
Unit IV. Food Production Process	18
<ul style="list-style-type: none"> • Food purchase and receiving • Storage • Quantity food production: standardization of recipes, recipe adjustments and portion control, Quantity food production techniques • Food service • Food hygiene and sanitation 	
Unit V: Space and Equipment	4
<ul style="list-style-type: none"> • Types of kitchen areas, flow of work and work area relationship • Equipment <ul style="list-style-type: none"> a) Factors affecting selection of equipment b) Equipment needs for different situations 	
Unit V: Financial Management	6
<ul style="list-style-type: none"> • Importance of financial management • Budgets and budgeting process • Cost concepts 	
Unit VI: Personnel Management	4
<ul style="list-style-type: none"> • Functions of a personnel manager, • Factors to consider while planning the kind and number of personnel: Menu, type of operations, type of service, Job description and job specification 	

Unit VII: Planning of A Small Food Service Unit**12****Preliminary Planning**

Survey of types of units, identifying clientele, menu, operations and delivery

Planning the set up:

- a) Identifying resources
- b) Developing Project plan
- c) Determining investments

Development of a business plan**PRACTICAL**

- | | |
|---|----------|
| 1. Market survey for food items both raw and processed of local/government outlets/super market | 2 |
| 2. Visits/Survey of food service units | 2 |
| 3. Standardization of a recipe | 4 |
| 4. Preparing Quick Foods for scaling up for quantity production | 5 |
| 5. Planning menus for the following: | 8 |
| • Packed meals for office employees | |
| • Nutritious tiffins for school children | |
| 6. School/college canteens | 3 |
| 7. Demonstration of a specialized cuisine | 2 |
| 8. Develop a checklist for good hygiene practices | 2 |
| 9. Organise theme based food festival/running college canteen | 2 |

RECOMMENDED READINGS:

- West B Bessie and Wood Levelle (1988) Food Service in Institutions 6th Edition Revised By Hargar FV, Shuggart SG, and Palgne Palacio June, Macmillian Publishing Company New York.
- Sethi Mohini (2005) Institution Food Management New Age International Publishers
- Knight J B and Kotschevar LH (2000) Quantity Food Production Planning and Management 3rd edition John Wiley and Sons
- Dessler Gary (1987) Personnel Management, Modern Concepts and Techniques Prentice Hall New Jersey
- Tripathi P C (2000) Personnel Management 15thed Sultan Chand, New Delhi
- Kazarian E A (1977) Food Service Facilities Planning 3rd Edition Von Nostrand Reinhold New York
- Kotas Richard and Jayawardardene. C (1994) Profitable Food and Beverage Management Hodder and Stoughton Publications

- Longree K, Langree K, Longrie K (1996) Quantity Food Sanitation, John Wiley and sons
- Roday .S (2003) Food Hygiene and Sanitation , Tata McGraw Hill Publication Ltd
- Taneja S and Gupta SL (2001) Entrepreneurship Development, Galgotia Publishing

GE 4: CURRENT CONCERNS IN PUBLIC HEALTH NUTRITION (CREDITS: THEORY 4 , PRACTICAL 2)

THEORY

LECTURES: 60

Unit I: Nutritional Problems Affecting the Community 10

Etiology, prevalence, clinical features and preventive strategies of-

- Undernutrition - protein energy malnutrition: severe acute malnutrition and moderate acute malnutrition, nutritional anaemias, vitamin A deficiency, iodine deficiency disorders
- Overnutrition – obesity, coronary heart disease, diabetes
- Fluorosis

Unit II: Strategies for Improving Nutrition and Health Status of the Community 10

Appropriate interventions involving different sectors such as food , health and education

Unit III: Nutrition Policy and Programmes 30

- National Nutrition Policy
- Integrated Child Development Services (ICDS) Scheme, Mid day Meal Programme (MDMP), National programmes for prevention of Anaemia, Vitamin A deficiency, Iodine deficiency disorders

Unit IV: Food and Nutrition Security 10

- Concept, components, determinants and approaches
- Overview of public sector programmes for improving food and nutrition security

PRACTICAL

1. Planning and evaluation of low cost nutritious recipes for preschoolers, school age children, adolescents, pregnant and nursing mothers. **13**
2. Planning and evaluation of low calorie nutritious recipes for weight management. **7**
3. Planning and conducting a food demonstration. **6**
4. Visit to an ongoing nutrition programme. **4**

RECOMMENDED READINGS:

- Wadhwa A and Sharma S (2003). Nutrition in the Community-A Textbook. Elite Publishing House Pvt. Ltd. New Delhi.
- Park K (2011). Park's Textbook of Preventive and Social Medicine, 21st Edition. M/s Banarasidas Bhanot Publishers, Jabalpur, India.
- Bamji MS, Krishnaswamy K and Brahmam GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
- Gibney MJ (2005). Public Health Nutrition.
- Vir S. (2011) Public Health Nutrition in Developing Countries. Vol 1 and 2

- ICMR (1989) Nutritive Value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- ICMR (2011) Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- Park K (2011). Park's Textbook of Preventive and Social Medicine, 21st Edition. M/s BanarasidasBhanot Publishers, Jabalpur, India.
- Bamji MS, Krishnaswamy K and Brahman GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.

**GE 5: GENDER AND SOCIAL JUSTICE
(CREDITS: THEORY 4 , TUTORIAL 2)**

THEORY

LECTURES: 60

TUTORIAL: 30

Unit I: Understanding Gender

10

- Sex and gender
- Masculinity and femininity
- Biological and cultural determinants of being male and female

Unit II: Social Construction of Gender

20

- Socialization for gender
- Gender roles, stereotypes and identity
- Influences on gender: mythology, literature, work, media, popular culture, caste

Unit III: The Girl Child and Women in India

15

- Demographic profile
- Status of health, nutrition and education
- Female feticide, infanticide and violence against women

Unit IV: Gender Justice

15

- Women's movement in India
- Laws, policies and programs for female children and women

RECOMMENDED READINGS:

- Menon, N. (2008). Sexualities: Issues in Contemporary Indian feminism. New Delhi: Sage.
- Mohanty, M. (2008). Class, Caste and Gender. New Delhi: Sage.
- Saikia, N. (2008). Indian Women: A Socio-Legal Perspective. New Delhi: Serials publications.

GE 6: CHILD RIGHTS AND SOCIAL ACTION
(CREDITS: THEORY 4, TUTORIAL 2)

THEORY

LECTURES: 60

TUTORIAL: 30

Unit I: Introduction to Child Rights **20**

- Definitions of child and child rights
- Key philosophical concepts in the discourse on child rights
- Factors of exclusion- socio-economic, disability, geo-political etc.
- Role of family, community and child herself in protecting rights

Unit II: Vulnerable Groups: Causes and Consequences **20**

- Street and working, destitute, homeless, institutionalized children
- Living with: chronic illness, HIV/AIDS, disabilities
- Affected by war, conflict, riots, disasters
- Victims of child-trafficking, abuse, dysfunctional families
- Children in conflict with law

Unit III: Framework for Social Action **20**

- Role of state in protection of child rights
- Laws for children- Indian and International
- Constitutional provisions in India
- National policies and programs
- Institutional and non-institutional services

RECOMMENDED READINGS

- Bajpai, A.(2006). Child Rights in India: Law, Policy and Practice. New Delhi: Oxford University Press.
- Bhargava, V. (2005). Adoption in India: Policies and Experiences. New Delhi: Sage.
- Virani,). (2000). Bitter chocolate: Child Sexual Abuse in India. New Delhi: Penguin
- Weiner, M., Burra, N., Bajpai, A. (2007). Born Unfree: Child labour, Education, and the State in India. New Delhi: Oxford University Press.

GE 7: CARE AND WELL-BEING IN HUMAN DEVELOPMENT
(CREDITS: THEORY 4, PRACTICAL 2)

THEORY

LECTURES: 60

Unit I: Care and Human Development

15

- Definition, concepts and relevance of care
- Vulnerable periods in life that require care
- Principles and components of care

Unit II: Well-Being and Human Development

15

- Concept of well-being-- physical, psychological, spiritual
- Life crises and well-being
- Factors and experiences that promote well-being

Unit III: Care and Well-Being at Different Stages of Life

20

- Childhood years
- Adolescence
- Adulthood and old age
- Well-being of caregivers

Unit IV: Policies, Services and Programs

10

- School health programs
- Nutrition and health for all
- Counseling and yoga

PRACTICAL

- | | | |
|----|--|----------|
| 1. | Observations of children (1 infant, 1 toddler) to understand their care needs | 6 |
| 2. | Interview of a mother of a school-going child to understand her perspective of care and child's well-being | 4 |
| 3. | Interaction with two adolescents (male, female) to explore their perspectives on well-being | 5 |
| 4. | Visit to a senior citizens' home to study their care and well-being | 4 |
| 5. | Lecture/workshop by a counselor on significance of counseling | 5 |
| 6. | Participation in yoga/ self development session | 6 |

RECOMMENDED READINGS

- IGNOU. (2011). Positive Psychology-2, MCFT-006 Applied Social Psychology. New Delhi: IGNOU.
Santrock, J.W. (2007). Life Span Development (3rded.). New Delhi: Tata McGraw-Hill.
Seligman, M.E.P. (2002). Authentic Happiness: Using the New Positive Psychology to Realize your Potential for Lasting Fulfillment. New York: Free Press.
- Sriram, R. (2004). Ensuring Infant and Maternal Health in India. In J. Pattnaik (Ed.). Childhood in South Asia: A Critical look at Issues, Policies and Programs. Conn.USA: Information Age.
- Singhi, P.(1999). Child Health and Well-Being: Psychosocial Care Within and Beyond Hospital Walls. In T.S. Saraswathi (Ed.). Culture, Socialization and Human Development. New Delhi: Sage.

GE 8: ADOLESCENT RELATIONSHIPS

(CREDITS: THEORY 4, PRACTICAL 2)

THEORY

LECTURES: 60

Unit I: Understanding Adolescence **20**

- Definitions, social construction of adolescence
- Significant physical, physiological and hormonal changes in puberty
- Ecological and cultural influences on adolescence
- Processes in identity formation: social identities, gender and well being

Unit II: Adolescent Relationships: Role in Building Social capital **20**

- Family relationships: in nuclear, extended and joint families
- Peer relationships: identity formation, knowing one's strengths and weaknesses
- Relationships beyond the family and peers

Unit III: Adolescent Well-being **20**

- Indicators of well-being: physical, socio-emotional, spiritual
- Relationships and well-being
- Social ecology and experiences that promote well-being

PRACTICAL

- | | |
|--|----------|
| Class room exercise on peer relationships | 4 |
| 1. Understanding self as a male/female adolescent: exercise on self-reflection | 4 |
| 2. Writing a brief biography of relationship with a close friend | 6 |
| 3. Relations with parents and siblings- separate interviews | 4 |
| 4. Analysis of different forms of media to understand interpersonal relationships | 4 |
| 5. Workshops- managing emotions with reference to relationships and to learn crisis management | 4 |
| 6. Methods of promoting well-being- yoga, self-development resources, counseling | 4 |

RECOMMENDED READINGS

- Erikson, E.H. (1968). Identity, Youth and Crisis. New York: Norton
- Manthei, R. (1997). Counselling: The Skills of Finding Solutions to Problems. London: Routledge.
- Sharma, N. (2009). Understanding Adolescence, New Delhi: National Book Trust.
- Rice, F. P. (2007). Adolescent: Development, Relationships and Culture.
- Santrock, J. W. (2010). Life Span Development: A Topical Approach, New Delhi: Tata McGraw Hill.

GE 9: MEDIA, CULTURE AND SOCIETY

(CREDITS: THEORY - 4, PRACTICAL - 2)

THEORY

LECTURES: 60

Unit I: Understanding Mass Media

20

- Characteristics of mass media
- Function of mass media.
- Uses and effects of mass media on individual, society and culture.
- Power of mass media.
- Role of mass media in society.

Unit II: Media Audience analysis

20

- Media audience analysis (mass, segmentation, product etc, social uses).
- Types of audience
- Theories of audience
- Approaches to media analysis
- Media and realism (class, gender, race, age, minorities, children etc.)

Unit III: Media and Popular Culture

20

- Relation between media and popular culture
- Social construction of reality by media
- Construction Vs distortion of reality
- Cultural studies approach to media
- Intercultural influences on media

PRACTICAL

30

- Media Criticism - choose a movie or television series and apply some of the concepts and techniques about interpretation, ideology, or gender/class/race.
- Audience perceptions about media; audience preferences listenership/ viewership
- Media and Governance - understand the relationship between media and governance.

RECOMMENDED READINGS:

Potter, James W (1998) Media Literacy. Sage Publications

Grossberg, Lawrence et al (1998) Media-Making: Mass Media in a Popular Culture. Sage Publications

- Berger, Asa Authur (1998). Media Analysis Technique. Sage Publications
- Stevenson, N (2002). Understanding Media Studies: Social Theory And Mass Communication, 2nd edition, Sage publications
- Mc Quail, Denis. (2000). Mass Communication Theory. London, Thousand Oaks, New Delhi: Sage Publications.

**GE 10: GENDER, MEDIA AND SOCIETY
(CREDITS: THEORY - 4, PRACTICAL - 2)**

THEORY

LECTURES: 60

Unit I: Social Construction of Gender

20

- Concept of gender
- Differences between sex and gender
- Patriarchal social order and status of women
- Socio cultural practices influencing women's position in development
- Shifts in Status of women – historical and contemporary perspectives
- Feminist theories and perspectives
- Role of media in construction of gender

Unit II: Gender and Development

10

- Concept of gender and development – indicators of human and gender development
- Approaches to women's participation in development
- Status, issues and challenges in context to violence against women,
- Gender differentials: women and health, women and education, women's work and economic participation, women and leadership
- Legal provision for women's rights

Unit III: Gender and Media

15

- Social construction of gender reality by contemporary media
- Media and perpetuation of gender stereotypes: rhetoric of the image, narrative
- Mainstream media and gender
- Representation of women in media in political, cultural and social landscape
- Researching and analyzing media from a gender perspective: In broadcast, print, new media. Gender and ICTs

Unit IV: Gender, Law and Advocacy

15

- Human rights and right to development
- Women, human rights and women's right to access information
- Framework for gender responsive media and gender mainstreaming
- Gender and media ethics

PRACTICAL

30

- Gender based analysis of media with special reference to portrayal of women.

- Participation in campaigns for empowering women.
- Case studies for programmes and campaign for women's empowerment.

RECOMMENDED READINGS:

- Bhasin, Kamla (2000). Understanding Gender. New Delhi. Kaali for Women.
- Goel, A, Kaur, A and Sultana, A (2006). Violence Against Women: Issues and Perspectives. New Delhi, Deep and Deep Publishers.
- Sohoni, K Neeraj, (1994), Status of Girls in Development Strategies, New Delhi, Har Anand Publications.
- Stevenson, N (2002). Understanding Media Studies: Social Theory And Mass Communication, 2nd edition, Sage publications
- Vivian, J (2012). The Media of Mass Communication, Pearson

GE 11: BEHAVIOUR CHANGE COMMUNICATION
(CREDITS: THEORY - 4, PRACTICALS- 2)

THEORY

LECTURES: 60

Unit I: Concept and Approaches to Behaviour Change Communication (BCC) 20

- Concept and relevance of BCC
- Approaches to BCC
- BCC- Strategy design and implementation.
- Appraisal of communication action plan

Unit II: Behaviour Change Communication (BCC) for Health 20

- Health scenario and public health issues
- Health programmes and strategies
- Role of media in health promotion
- Analysis of health campaign

Unit III: Behaviour Change Communication (BCC) for Environment 20

- Environment scenario and ecological issues
- Environment programme and strategies
- Role of media in promoting sustainable environment
- Analysis of environmental campaign

PRACTICAL

30

1. To learn the process of analysing of BCC campaigns
2. To document and analysis BCC campaigns for social mobilization and policy change.
3. To design and implement BCC campaigns in core issues for stakeholders

RECOMMENDED READINGS:

- Subedi, N R, (2008). Advocacy Strategies and Approaches: A Training of Trainers Manual. International
- Atkin ,C.K.and Rice, R.E. (2012) Theory and Principles of Public Campaigns. In C. Atkins and R Rice (EDS) Public Communication Campaigns. Newbury Park, CA: Sage
- Cox, R. (2006) Environmental Communications and the Public Sphere. Thousand Oaks,CA:Sage.
- Subedi, N R, (2008). Advocacy Strategies and Approaches: A Training of Trainers Manual. International

GE 12: INFORMATION AND COMMUNICATION TECHNOLOGIES FOR DEVELOPMENT

(CREDITS: THEORY - 4, PRACTICALS- 2)

THEORY

LECTURES: 60

Unit I: Introduction to ICTs

20

- Understanding ICTs- definition, concept, meaning
- Evolution of ICTs-global and local level
- Classification of ICTs- traditional and modern ICTs, their relevance to development
- Limitations and challenges of ICTs- limited reach and access, digital divide
- Stakeholders in ICT projects and funding patterns

Unit II: Applications of ICTs to Development

20

- ICTs and Livelihoods, Poverty Reduction and Governance
- ICTs in Education, Gender equality and Empowerment and Health
- ICTs in Environment, Climate Change and Disaster Management
- Role of ICTs in development- Radio, television, video, multi-user mobile telephony

Unit III: ICT Tools in Diverse Media

20

Study, analysis and design of ICT tools in diverse media for development

- Radio as an ICT tool for development
- Television as an ICT tool for development
- Television as an ICT tool for development
- New media as an ICT tool for development
- Mobile telephony as an ICT tool for development

PRACTICAL

30

1. To understand the applications of ICTs to development
2. To Study and analysis and design of ICT tools in diverse media for development
3. To design ICT tools for development using diverse media

RECOMMENDED READINGS

- Unwin, T. (Ed.) (2009). *ICT4D: Information and Communication Technology for Development*. Cambridge: Cambridge University Press.
- Tongia, R., Subrahmanian, E. and Arunachalam, V. (2005). *Information and Communications Technology for Sustainable Development*. Bangalore: Allied Publishers
- Weigel, G. and Waldburger, D. (Eds.) (2004). *ICT4D – Connecting People For A Better World. Lessons, Innovations and Perspectives of Information and Communication Technologies in Development*. Berne: Swiss Agency for Development and Cooperation (SDC) and the Global Knowledge Partnership (GKP).

GE 13: FASHION: DESIGN AND DEVELOPMENT
(CREDITS: THEORY 4, PRACTICAL, 2)

THEORY

LECTURES: 60

Unit I: Fashion Study **10**

- Timeline of clothing of draped style of early civilization up to stitched style of 21st century
- Indian costume- Vedic and Mughal

Unit II: Adoption of Fashion **3**

- Consumer groups- fashion leaders, followers
- Adoption process- Trickle-down theory, bottom up theory and trickle across theory

Unit III: Development of Fashion Details **12**

- Necklines- high and low
- Collars – classification, stand and fall, shawl- flat and raised, shirt collar, peter-pan collar on deep open necklines
- Sleeves and cuffs- cap, leg-o-mutton, shirt maker and bishop, petal and saddler
- Skirts- high and low waist, gathered, gored, pleated, flared with and without yokes
- Pockets- applied, in-seam and slashed
- Plackets – centralized, asymmetric and double breasted

Unit IV: Fashion Forecasting **10**

- Forecasting background
- Forecasting industry
- Process: colour, inspiration, graphics and labelling, fabrication and silhouette, details, mood boards

Unit V: Designing a Successful Garment **15**

- Role of a designer
- Facets of successful design, aesthetics
- Organization of a line
- Fabricating a line
- Cost of a garment

Unit VI: Fashion Centres and Designers of the World **10**

- France, Italy, UK, Japan, NY
- India

PRACTICAL

- Technical drawing of fashion details: skirts, bodices, sleeves, necklines, collars, accessories. **8**
- Applied and in- seam pockets **4**
- Style reading and Development of paper patterns of various collars and sleeves **8**
- Design variations in bodice through dart manipulation **4**
- Design variations in skirt on half scale templates **6**

RECOMMENDED READINGS

- Armstrong, H.J. (2009), Pattern Making for Fashion Design, Harper Collins Publishers, INC, New York.
- Fringes, G.S. (1999), Fashion from Concept to Consumer, 6th edition, NJ, Prentice Hall.
- Jarnow, J. Dickerson Kitty G (1987), Inside the Fashion Business, New Jersey, Merrill, Prentice Hall.
- Mc. Kelvey, K., Muslow, J., Fashion Forecasting (2008) Wiley Blackwell
- Tate, S.L. and Edwards, M.S.(1982) The Complete Book of Fashion Design, New York, Harper and Row Publication.

GE: 14 FASHION ACCESSORIES
(CREDITS: THEORY 4, PRACTICAL, 2)

THEORY

LECTURES 60

Unit I: Role and Significance of Fashion Accessories

15

- Importance of fashion accessories in apparel industry
- History and overview of accessory design
- Role of an accessory designer
- Leading contemporary accessory designers and brands

Unit II: Understanding Categories, Styles and Production Methods of Fashion

Accessories

25

- Brief history, common styles, components, materials used and production methods of select accessories
 - Handbags,
 - Footwear
 - Hats
- Common styles and production methods of other accessories – Jewellery, Belts, Gloves, Scarves
- Coordinating accessories and outfits

Unit III: From Concept to Creation: Key Steps in Accessories Design

20

- Creative design development of accessories
 - Inspiration and research
 - Trend forecasting of fashion accessories
 - Design development
 - Developing a range
- Presentation techniques

PRACTICALS

1. Using Illustration, colouring and rendering techniques for designing fashion accessories – handbags, footwear, jewellery **8**
2. Designing and construction of a tote bag **6**
3. Restyling project - restyling of plain accessories using creative techniques **6**
4. Final Project – based on an inspiration, the students are required to design a collection of accessories **6**

RECOMMENDED READINGS

- Stephens Frings Gini, 2007, Fashion: From Concept to Consumer (9th Edition), Prentice Hall
- Genova Aneta 2011, Accessory Design, Fairchild Pubns; 1 edition
- Schaffer Jane, Saunders Sue 2012, Fashion Design Course: Accessories: Design Practice and Processes for Creating Hats, Bags, Shoes, and Other Fashion Accessories, Barron's Educational Series
- Lau John 2012, Basics Fashion Design 09: Designing Accessories: Exploring the design and construction of bags, shoes, hats and jewellery, A Publishing; 1 edition

GE 15: TEXTILES: CARE AND CONSERVATION
(CREDITS: THEORY 4 , PRACTICAL 2)

THEORY

LECTURES 60

Unit I: Introduction

7

- Empowering consumers to understand textiles through scientific and practical approach
- Identification of fabrics – fibre, weave, finish
- Care and maintenance of fabrics
- Labels and malpractices
- Role of water in cleaning

Unit II: Materials and Practices in Care

18

- Water – Types of hardness and its removal
- Composition and functions of soaps and detergents
- Stiffening agents and whitening agents
- Chemical reagents used for dry cleaning

Unit III: Care Equipment

15

- Industrial cleaning and finishing machines
- Laundromats, drying and Ironing equipment

Unit IV: Conservation of Textiles in Museums

20

- Current practices, ethics and materials used in conservation
- Factors affecting textile stability
- Handling
- Cleaning
- Display and storage

PRACTICALS

- | | |
|--|----------|
| 1. Identification of textile fiber | 4 |
| 2. Stain Removal of fabrics | 6 |
| 3. Colour fastness of dyed cotton fabrics | 2 |
| 4. Impact of softening agents on cotton | 2 |
| 5. Preparation and use of starch | 2 |
| 6. Impact of washability on shrinkage | 2 |
| 7. Felting shrinkage | 3 |
| 8. Restoration and stabilization of textiles | 4 |
| 9. Handling of silk and wool | 5 |

RECOMMENDED READINGS

- Agarwal, O.P., 1977, Care and Presentation of Museum Projects – II, NRL
- Finch K. and Putnam G, 1985, The Care and Preservation of Textiles
- Landi, S. 1991, Textile Conservator's Manual, Routledge
- Hollen, N. and Saddler, J. 1973, Textiles, The McMillan Company, New York.

GE 16: APPRECIATION OF TEXTILE CRAFTS
(CREDITS: THEORY 4, PRACTICAL 2)

THEORY

LECTURES: 60

Unit I: Introduction to Crafts **8**

- Crafts- meaning and classification
- Craftsperson- role and responsibilities
- Philosophy and aesthetics – indigenous and contemporary textile crafts

Unit II: Textile Crafts

- Types – traditional and modern **5**
- Materials – fiber, yarn, fabric and products
- Traditional techniques
- (a) Traditional needle craft techniques **10**
 Kashida ,Kasuti, Kantha, Chikankari, Cutch work, Phulkari
- (b) Dyed, Painted and Printed Textiles **12**
 Kalamkari ,Bandhani, Ikats, Pichwais, Ajrakh, Bagru
- (c) Woven Saris of India **15**
 Brocades, Jamdani, Baluchar, Paithani, Chanderi, Kanjeevarams
- (d) Shawls and Carpets of various centres **7**

Unit III: Cultural and Economic Empowerment through Crafts **3**

- Textiles crafts in national economy

PRACTICALS

1. Bandhej and Laharia **8**

- Demonstration of techniques
- Handouts and related videos
- Development of Home textile products

2. Embroidery **12**

- Demonstration of traditional hand stitches
- Interaction with artisan

- Development of bags/pouches yokes/borders for a desired product

3. Printing

10

- Demonstration of a block printing/mud resist printing
- Visit to craft centre/museum
- Development of stole/dupatta

RECOMMENDED READINGS

- Chattopadhyaya, K.D., 1995, Handicrafts of India, Wiley Eastern Limited, N Delhi
- Das, Shukla, 1992, Fabric Art- Heritage of India, Abhinav Publications, N Delhi

GE 17: ENTREPRENEURSHIP AND ENTERPRISE MANAGEMENT
(CREDITS: THEORY 4, PRACTICAL, 2)

THEORY

LECTURES: 60

Unit I: Entrepreneurship Development

16

- Entrepreneurship- concept, definition, need and significance of entrepreneurship development in India, entrepreneurship growth process, barriers, entrepreneurship education model.
- Entrepreneur-their characteristics, types, gender issues, role demands and challenges.
- Entrepreneurial motivation.
- Challenges faced by women entrepreneurs

Unit II: Enterprise Planning and Launching

20

- Types of enterprises classification based on capital, product, location, ownership pattern and process
- Sensing business opportunities and assessing market potential; market research
- Appraising of project and feasibility

Unit III: Enterprise Management and Networking

24

- Managing production
 - Organizing production; input-output cycle
 - Ensuring quality
- Managing Marketing
 - Understanding markets and marketing
 - Functions of marketing
 - 4Ps of marketing(same as marketing mix)
 - Financial management
 - Meaning of finance
 - Types and sources of finance
 - Estimation of project cost
 - Profit assessment
- Networking of enterprises

PRACTICAL

1. SWOT analysis with respect to entrepreneurial competencies through case profiling of successful entrepreneurs and enterprises. **6**
2. Achievement Motivation lab-development of entrepreneurial competencies **6**

3. Survey of an institution facilitating entrepreneurship development in India.	6
4. Preparation of business plan.	12

RECOMMENDED READINGS

- Gundry Lisa K. and Kickul Jill R.2007, Entrepreneurship Strategy: Changing Patterns in New Venture Creation, Growth, and Reinvention, SAGE Publications, Inc.
- Taneja and Gupta, 2001, Entrepreneur Development- New Venture Creation, Galgotia Publishing Company

GE 18: INTERIOR DESIGN
(CREDITS: THEORY 4, PRACTICAL 2)

THEORY

LECTURES: 60

Unit I: Design Fundamentals

30

- Objectives of art and interior design.
- Types of design: structural and decorative.
- Elements of content: space, point, line, shape, form, texture, light and color.
- Elements of order: scale, similarity, proximity, sequence, trends, themes, geometrical organization.
- Principles of composition – rhythm, balance, proportion, emphasis, unity, (variety, simplicity/economy, suitability).
- Composition of a drawing – harmony, clarity, adequacy.
- Colour dimensions, systems, theories and harmonies
- Design drawing – drawing as a language to explore and communicate ideas.

Unit II: Furniture and Furnishings: Historical Perspectives and Contemporary Trends 30

- Architectural Styles –based on themes and main periods, like post renaissance and modern style.
- Contemporary trends in interior design with respect to furniture, furnishings and accessories.
- Furniture – types, construction, selection and purchase, arrangement, care and maintenance
- Furnishings – selection, care and maintenance of fabrics used for
 - Soft furnishings: curtains and draperies, upholstered furniture, cushions and pillows, etc.
 - Floor coverings
- Accessories – uses, classification, design, selection and arrangement.
- Traditional and modern surface finishes – types and uses
 - Furniture
 - Wall
 - Floor
 - Ceilings
 - Roofing
- Lighting applications (Energy efficient lighting design – number and type of lamps and luminaires for efficiency in lighting).
- Accessories – uses, classification, design, selection and arrangement.

PRACTICAL

- Drawing **4**
Introduction to drawing instruments and tools (manual and computer tools)
 - Drawing lines (freehand and with drawing instruments) - both 2-dimensional and 3-dimensional.
 - Lettering.
 - Sketching (figures, buildings, trees & plants, vehicles) - both 2-dimensional and 3-dimensional.
 - Rendering for different surfaces such as trees, brick, grass, water, wood, stone, earth, concrete using
 - Water Colors.
 - Stubbing.
 - Pencil Colors.
- Preparation of catalogue comprising pictures denoting application of art and elements of design; color- color wheel, dimension and harmonies of color. **4**
- Floor plans with rendering (theme based- manual/computer aided) **6**
- Elevation and perspective plans with rendering (manual/computer aided) **6**
- Furniture and furnishing plans of specific areas- critical analysis **4**
- Preparation of portfolio on any one of the following **6**
 - Wall coverings and decorations (pictures, etc) – floor coverings and decorations.
 - Window and door treatments.
 - Lighting systems.
 - Artifacts (sculptures, ceramics/terracotta, handicrafts, flower arrangements, etc.) – fittings and fixtures.
 - Wood and its substitutes.

RECOMMENDED READINGS

- Lawrence M, (1987), Interior Decoration, New Jersey: Chartwell Books.
- Riley and Bayen., (2003), The Elements of Design, Mitchell Beazley.

GE 19: FACILITIES AND SERVICE MANAGEMENT
(CREDITS: THEORY 4, TUTORIAL, 2)

THEORY

LECTURES: 60

TUTORIAL: 30

Unit I: Concept of Facilities and Service Management **20**

- Nature, classification and characteristics of facilities and services
- Care and maintenance of different surfaces (walls, floors, tables / work counters, ceilings, accessories, furnishings, etc.), and materials (metal, wood, stone, masonry, plastic, leather, fabrics, etc.)

Unit II: Hospitality and Housekeeping Services **20**

- Operations, electrical and mechanical services, landscaping and gardening
- Logistics and transportation (distribution services - inventory management, logistics, supply chain management systems, reverse logistics)
- Information security management systems, health services, educational or professional services

Unit III: Strategy for Facilities and Services Management **20**

- Strategy for facilities and services
 - Six sigma applied in facilities and services management
 - Service quality management and control - internal audits - social accountability
 - Occupational health and safety system
 - Hygiene practices - hazard analysis and critical control point
 - Environment management systems - environmental impact assessment (EIA)
- Project - case study management of services in an organisation (interactive)

RECOMMENDED READINGS

- Construction Products in India- The Issues, the Potential and the Way Ahead by CCPS(Confederation of Construction and Services).
- Household Materials –*A Manual for Care and Maintenance* by Sarla Manchanda, Savitri Ramamurthy, Sushma Goel and Archana Kumar.

GE 20: TRAINING AND DEVELOPMENT
(CREDITS: THEORY 4, TUTORIAL, 2)

THEORY

LECTURES: 60

TUTORIAL: 30

Unit I: Conceptual Framework

10

- Concept and principles of organisational training and development needs.
- Training and development systems for inter-personal skills
- Training styles- co-training, RRA, PRA, ELC, field sessions and instruments

Unit II: Developing Training Programme

20

- Skills of an effective trainer
- Assessing training need,
- Developing content as per TNA
- Principles and use of audio-visual aids in training;
- Computer aided instruction;
- Developing training aids.

Unit III: Training Methodology

20

- Overview of training methodologies: logic and process of learning,
- Lecture, talk, discussion
- Case-study
- Programme learning
- Action learning, syndicate work
- In basket exercises
- Demonstration and practice monitoring; coaching
- Self diagnostic skills, experience learning, discovery learning, brain storming
- Counselling, training needs, training in the empirical domain
- Job rotation, team building
- Audio-visual techniques
- Concept and principles of evaluation

Unit IV: Evaluation of Training

10

- Concept, principles of training evaluation
- Models of training evaluation
- Training partnerships

- Training and the law, training and its views as a feedback mechanism

RECOMMENDED READINGS

- Prior, John, (1997) *Handbook of Training and Development*, Bombay: Jaico
- Rolf, P., and Pareek Udai. (1979) *Training and Development*. New York: Harper and Row
- Trevelove, Steve (1995) *Handbook of Training and Development*, Blackwell: Business

ABILITY ENHANCEMENT CORE COURSES

AECC: 1 ENVIRONMENTAL STUDIES SEMESTER 1 (CREDITS: THEORY 2)

Theory

Lectures: 30

Unit 1: The Multi-Disciplinary Nature of Environmental Studies

Definition, Scope and Importance; need for public awareness

2

Unit 2: Natural Resources

Renewable and Non-Renewable resources: natural resources and associated problems

a) Forest Resources: use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.

b) Water Resources: use and over-exploitation of surface and ground water; floods, droughts, conflicts over water, dams-benefits and problems.

c) Mineral Resources: use and exploitation, environmental effects of extracting and using mineral resources; case studies related to mining and its effect on siltation and loss of biodiversity.

d) Food Resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity; case studies.

e) Energy Resources: growing energy needs, renewable and non-renewable energy sources, use of alternative energy sources, case studies

f) Land Resources: land as a resource, land degradation, man-induced landslides, coastal erosion, soil erosion and desertification. Role of an individual in conservation of natural resources. Equitable use of resources for sustainable lifestyles.

8

Unit 3: Ecosystems

Concept of an ecosystem, structure and functions of ecosystems; producers, consumers and decomposers, energy flow in the ecosystem, ecological succession, food chains, food webs and ecological pyramids. Introduction, types, features, structure and functions of the following ecosystems: forest ecosystem, grassland ecosystem, desert ecosystem, aquatic ecosystem (ponds, streams, lakes, rivers, oceans, coastal zone, estuaries).

6

Unit 4: Biodiversity and its Conservation

Introduction, definition, genetic, species and ecosystem diversity; bio-geographical classification of India; value of biodiversity - consumptive use, productive use, social, ethical, aesthetic and option values; biodiversity at global, national, regional and local levels; India as a mega-diversity nation; hotspots of biodiversity; threats to biodiversity - habitat loss, poaching of wildlife, man-wildlife conflicts, bio-invasion, and over exploitation; endangered and endemic species of India (at least 5 examples of animals and plants each); conservation of biodiversity- *in-situ* and *ex-situ* conservation, role of biotechnology in conservation of biodiversity.

8

Unit 5: Field visit

- Visit to a local polluted site - urban/rural/ industrial/ agricultural and waste treatment plant(s)/sustainable tourism site(s). A report of field visit to be maintained. **6**

Recommended Readings

Agarwal K.C. (2001): Environmental Biology, Bikaner,
Nidi Bharucha E.: The Biodiversity of India, Ahmedabad,
Mapin Bharucha E.: Textbook of Environmental Studies. Orient BlackSwan
Brunner R.C. (1989): Hazardous Waste Incineration, New York, McGraw-Hill
Chatwal G.R. & Sharma H. (2005): A Textbook of Environmental Studies, Mumbai, Himalaya
Clark R.S.: Marine Pollution, Oxford, Clanderson
Cunningham W.P., Cooper T.H., Gorani E. & Hepworth M.T. (2001): Environmental Encyclopaedia, Mumbai, Jaico.
De A.K.: Environmental Chemistry, Wiley
Desai R.J. (2003): Environmental Studies, Mumbai, Vipul
Gleick H.P. (1993): Water in Crisis, Stockholm Env't. Institute, OUP
Hawkins R.E.: Encyclopaedia of Indian Natural History, Mumbai, BNHS
Heywood V.H. & Watson R.T. (1995): Environment Protection and Laws, Mumbai, Himalaya
Jadhav H. & Bhosale V.M. (1995): Environment Protection and Laws, Mumbai, Himalaya
McKinney M.L. & Schoel R.M. (1996): Environment Science, Systems and Solutions, Web Enhanced Edition.
Mhaskar A.K.: Matter Hazardous, Techno-Science Publications
Miller T.G. Jr.: Environmental Science, Wadsworth
Odum E.P. (1971): Fundamentals of Ecology, Philadelphia, W.B. Saunders
Rao M.N. & Datta A.K. (1986): Waste Water Treatment, Oxford & IBH
Santra S.C. (2004): Environmental Science, Kolkata, Central Book Agency
Sharma B.K. (2001): Environmental Chemistry, Meerut, Goel Publishing House
Townsend C., Harper J. & Begon M.: Essentials of Ecology, Blackwell Science
Trivedi R.K.: Handbook of Environmental Laws, Rules, Guidelines, Compliances and Standards, Vol.1 & 2, Enviro Media.
Trivedi R.K. & P.K. Goel: Introduction to Air Pollution, Techno-Science Publications
Wagner K.D. (1998) Environmental Management, Philadelphia, W.B. Saunders

Magazines

Down to Earth, Centre for Science & Environment
Survey of the Environment published by The Hindu

Eresource

<http://www.ugc.ac.in/oldpdf/modelcurriculum/env.pdf>

**AECC: 1 ENVIRONMENTAL STUDIES
SEMESTER II (CREDITS: THEORY 2)**

Theory

Lectures: 30

Unit 1: Environmental Pollution

Definition, causes, effects and measures to control air pollution, water pollution, soil pollution, marine pollution, noise pollution, thermal pollution, nuclear hazards; waste – types, causes, effects; waste management –solid, sewage and effluents; measures to control industrial and urban wastes; role of an individual in prevention of pollution; pollution case studies (Bhopal gas tragedy and mining); disaster management-floods, droughts, earthquakes, landslides, cyclones, Tsunami. **8**

Unit 2: Social issues and the Environment From unsustainable to sustainable development; urban problems related to energy; water conservation, rainwater harvesting, watershed management; resettlement and rehabilitation of people - problems and concerns, case studies; environmental ethics - issues and concerns; climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust, case studies; wasteland reclamation; consumerism and associated waste products; Objectives and scope of Environment (Protection) Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and Control of Pollution) Act, Forest Conservation Act, Wildlife Protection Act, Forest Rights Act and Biodiversity Act; Issues involved in enforcement to environmental legislation; public awareness. **7**

Unit 3: 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. **5**

Unit 4: Tourism and Environment

Definition and typology of tourism; mass tourism and environment - aspects of degradation and exploitation, physical and social impacts; examples at local, regional, national and international levels. Sustainable tourism. **4**

Unit 5: Field visit

- Visit to a local area to document environmental assets - river/ forest/ grassland/ hill/ mountain; study of common plants, insects, birds; study of simple ecosystems-pond/ river/ hill slopes, etc. A report of field visit(s) to be maintained. **6**

Recommended Readings

Agarwal K.C. (2001): Environmental Biology, Bikaner,
Nidi Bharucha E.: The Biodiversity of India, Ahmedabad,
Mapin Bharucha E.: Textbook of Environmental Studies. Orient BlackSwan
Brunner R.C. (1989): Hazardous Waste Incineration, New York, McGraw-Hill

Chatwal G.R. & Sharma H. (2005): A Textbook of Environmental Studies, Mumbai, Himalaya
 Clark R.S.: Marine Pollution, Oxford, Clanderson
 Cunningham W.P., Cooper T.H., Gorani E. & Hepworth M.T. (2001): Environmental Encyclopaedia, Mumbai, Jaico.
 De A.K.: Environmental Chemistry, Wiley
 Desai R.J. (2003): Environmental Studies, Mumbai, Vipul
 Gleick H.P. (1993): Water in Crisis, Stockholm Env't. Institute, OUP
 Hawkins R.E.: Encyclopaedia of Indian Natural History, Mumbai, BNHS
 Heywood V.H. & Watson R.T. (1995): Environment Protection and Laws, Mumbai, Himalaya
 Jadhav H. & Bhosale V.M. (1995): Environment Protection and Laws, Mumbai, Himalaya
 McKinney M.L. & Schoel R.M. (1996): Environment Science, Systems and Solutions, Web Enhanced Edition.
 Mhaskar A.K.: Matter Hazardous, Techno-Science Publications
 Miller T.G. Jr.: Environmental Science, Wadsworth
 Odum E.P. (1971): Fundamentals of Ecology, Philadelphia, W.B. Saunders
 Rao M.N. & Datta A.K. (1986): Waste Water Treatment, Oxford & IBH
 Santra S.C. (2004): Environmental Science, Kolkata, Central Book Agency
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 Trivedi R.K.: Handbook of Environmental Laws, Rules, Guidelines, Compliances and Standards, Vol.1 & 2, Enviro Media.
 Trivedi R.K. & P.K. Goel: Introduction to Air Pollution, Techno-Science Publications
 Wagner K.D. (1998) Environmental Management, Philadelphia, W.B. Saunders

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<http://www.ugc.ac.in/oldpdf/modelcurriculum/env.pdf>

AECC: 2 ENGLISH
SEMESTER 1 (CREDITS: THEORY 2)

Theory

Lectures: 30

Course Objectives

- 1) To listen to, understand and convey information
2. To listen to, and respond appropriately to the contributions of others,
3. To, understand, order and present facts, ideas and opinions.
4. To articulate experience and express what is thought, felt and imagined.
5. To communicate clearly and fluently
6. To use grammatically correct language
7. To use register appropriate to audience and context

Learning Outcomes

By the end of the term the student should be able to:

1. Describe a visual or an object
2. Explain and give cause and effect
3. Narrate an experience with descriptive detail
4. Provide relevant information
5. Use alternatives to slang
6. Take an active part in group discussion
7. Elicit and show respect for the views of others
8. Disagree, argue and use persuasive speech in appropriate language

Course Content

Unit 1

Pronunciation and Enunciation .Diction, intonation, phrasing, pausing, emphasis, stress, inflection **3**

Unit 2

Grammar, vocabulary and alternatives to slang **2**

Unit 3

Conversation skills like. interview, telephone conversations. On the spot conversations (formal and informal styles of speaking), developing argumentative skills, monologue, dialogue **4**

Unit 4

Presentation skills a) summary b) chairing c) sustained explanation **2**

Unit 5

Group discussion skills- general/current topics, leading and participating, short speeches (welcome and farewell) **4**

Unit 6

Group talk- analyzing and evaluating the reporting of an incident or issue in more than one newspaper. **2**

Unit 7

Persuasion and negotiation/explanation and information-students plan a sales campaign **2**

Unit 8

Asking and answering questions **2**

Unit 9

Request and explanations **2**

Unit 10

Expressing opinion-debates/public speech **4**

Unit 11

Giving and getting advice **3**

(Candidates will be examined on the following criteria a) content b) fluency c) vocabulary d) structure)

References:

1. Inthira, S.R. and Saraswathi, V. (2007) *Enrich Your English Book-1: Communication Skills*, Central Institute of English and Foreign Languages, Hyderabad: Oxford University University Press,
2. Inthira, S.R. and Saraswathi, V.(2009) *Enrich Your English Book-1: Academic Skills*, Central Institute of English and Foreign Languages, Hyderabad: Oxford University University Press, *The Oxford Essential Dictionary: American Edition*, New York:
3. Tickoo, M.L., Subramanian, A.E. and Subramanian, P.R. (2008) *Intermediate Grammar Usage and Composition*, Hyderabad: Orient Longman Private Limited,
4. Sharma, Madhu. (2010) *Selected Letters For All Occasions*, New Delhi: Manu Graphics,
5. Hackman S, etal. (2001) *New Hodder English* , London: Hooder and Stoughton
6. Krishna Mohan and Singh.N.P. (2000) *Speaking English Effectively*, India: Macmillan India. Ltd1.
7. Fluency in English - Part II, Oxford University Press, 2006.
8. Business English, Pearson, 2008.
9. Language, Literature and Creativity, Orient Blackswan, 2013.
10. Language through Literature (forthcoming) ed. Dr. Gauri Mishra, Dr Ranjana Kaul, Dr Brati Biswas

AECC: 2 ENGLISH
SEMESTER II (CREDITS: THEORY 2)

Theory

Lectures: 30

Written English

Course Objectives

1. To equip students with effective skills in written communication
2. To create a sense of professional etiquette in the students.
3. To help students to critically assess ideas in a seen passage.
4. To require accuracy in different kinds of writings

Course Content

Unit I

Grammar/Vocabulary

- a) Reported Speech b) Question Tags c) Active/Passive Voice d) Degree of Comparison e) Making Negatives f) Gender and Number g) Articles h) Punctuation i) Prepositions j) Conjunctions k) Pronouns **8**

Unit II

II. A. Written Communication Theory

- a) Parts of a letter b) Forms of Layout

II. B. Letters

- a) Social Letters (Letters of congratulation, Thank you, Condolence)
b) Job Application and C.V.
c) Goodwill Letters i.e. Testimonial, Reference, Letters
d) Letters of Appointment/ Promotion/ Confirmation
e) Letters of Resignation/ Termination of service

II.C. Official Letter to:-

College/University, Panchayat, Municipality, Electricity Department etc.

II. D. Trade Letters

- a) Letters of Inquiry b) Placing order c) Complaints

II.E. Redressal Letters

- a) Consumer grievance Redressal letters b) Representation **12**

Unit III

III. Report Writing

- a) Individual Report/Committee Report
b) Precise Writing
c) Notice + Agenda
d) Minutes of the meeting

IV Public Relations

Press Release **10**

References:

1. Inthira, S.R. and Saraswathi, V. (2007) *Enrich Your English Book-1: Communication Skills*, Central Institute of English and Foreign Languages, Hyderabad: Oxford University University Press,
2. Inthira, S.R. and Saraswathi, V. (2009) *Enrich Your English Book-1: Academic Skills*, Central Institute of English and Foreign Languages, Hyderabad: Oxford University University Press, *The Oxford Essential Dictionary: American Edition*, New York:
3. Tickoo, M.L., Subramanian, A.E. and Subramanian, P.R. (2008) *Intermediate Grammar Usage and Composition*, Hyderabad: Orient Longman Private Limited,
4. Sharma, Madhu. (2010) *Selected Letters For All Occasions*, New Delhi: Manu Graphics,
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7. Fluency in English - Part II, Oxford University Press, 2006.
8. Business English, Pearson, 2008.
9. Language, Literature and Creativity, Orient Blackswan, 2013.
10. Language through Literature (forthcoming) ed. Dr. Gauri Mishra, Dr Ranjana Kaul, Dr Brati Biswas

SCHEME OF EXAMINATIONS

1.1 DURATION OF SEE THEORY/PRACTICAL EXAMINATION

The duration of SEE in theory/practical shall be as follows:

- a) 80 marks theory paper shall be of two and a half hours duration
- b) 60 marks theory paper shall be of two hours duration.
- c) 40 marks Theory paper shall be of one and half hours duration.
- d) 40 marks practical examination shall be of two hours duration

1.2 PATTERN OF SEE QUESTION PAPER

A. The question paper pattern for 80 marks paper shall be as follows:

- a) Paper shall have two sections with four questions of 20 marks each.
- b) Q1 and Q3 will be short answers of 5 marks each. (Any four to be answered out of seven)
- c) Q2 and Q4 will be essay type of 10 marks each. (Any two to be answered out of four)

B. The question paper pattern for 60 marks paper shall be as follows:

- a) Paper shall have two sections with four questions of 15 marks each.
- b) Q1 and Q3 will be short answers of 3 marks each. (Any five to be answered out of eight)
- c) Q2 and Q4 will be essay type of 7.5 marks each. (Any two to be answered out of four)

C. The question paper pattern for 40 marks paper shall be as follows:

There shall be three questions of which:

- a) Q1 shall have small answer questions (Any ten to be answered out of fourteen, each carrying 2 marks).
- b) Q2 shall be short descriptive question answers (Any two to be answered out of four, each carrying 5 marks)
- c) Q3 shall be essay type (Any one to be answered out of two carrying 10 marks)

D. SEE for the SEC which has only practical components shall be as follows:

- a) ISA shall carry 20 marks
- a) SEE for practical examination shall carry 40 marks.
- b) Marks for reports/journal/field visits/project/portfolios/case studies/lesson plan/scrap books/educational aids/demonstrations/surveys etc. Any other activity pertaining to the syllabus shall carry 40 marks.