

# **UNIVERSITY OF DELHI**

**Scheme of Examination**

**and**

**Courses of Reading**

**for**

**B.Sc. (Hons) Home Science**

**Department of Home Science**

**Faculty of Science**



**University of Delhi**

**2015**

## B.SC. (HONS) HOME SCIENCE

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

## B.SC. (HONS) HOME SCIENCE

Contd...

VI	CC-13 Theory	Research Methodology in Home Science	4
	CC-13 Practical	Research Methodology in Home Science Practical	2
	CC-14 Theory	Socio Economic Environment	4
	CC-14 Practical	Socio Economic Environment 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
		<b>Total</b>	<b>140</b>

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

## Preamble

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

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

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

The University Grants Commission's model curriculum of Home Science reflects a similar philosophy.

The objectives of the B.Sc. (Hons.) Home Science Honours 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 the life of 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

### B.Sc. (Hons.) Home Science

<b>CORE COURSE (14)</b>		<b>Ability Enhancement Compulsory Course (AECC) (2)</b>	<b>Skill Enhancement Course (SEC) (2)</b>	<b>Elective: Discipline Specific DSE (4)</b>	<b>Elective: Generic (GE) (4)</b>
<b>I</b>	<b>CC 1: Human Development I: The Childhood Years</b>	<b>English/ EVS</b>			<b>GE 1</b>
	<b>CC 2: Food and Nutrition</b>				
<b>II</b>	<b>CC 3: Dynamics of Communication &amp; Extension</b>	<b>English/ EVS</b>			<b>GE 2</b>
	<b>CC 4: Resource Management</b>				
<b>III</b>	<b>CC 5: Introduction to Textiles</b>		<b>SEC 1</b>		<b>GE 3</b>
	<b>CC 6: Communication Systems and Mass Media</b>				
	<b>CC 7: Personal Finance &amp; Consumer Studies</b>				
<b>IV</b>	<b>CC 8: Human Development II: Development in Adolescence and Adulthood</b>		<b>SEC 2</b>		<b>GE 4</b>
	<b>CC 9: Nutrition: A Life Cycle Approach</b>				
	<b>CC10: Fashion Design Concepts</b>				
<b>V</b>	<b>CC11: Life Sciences</b>			<b>DSE 1</b>	
	<b>CC12: Physical Sciences</b>			<b>DSE 2</b>	
<b>VI</b>	<b>CC 13: Research Methodology in Home Science</b>			<b>DSE 3</b>	
	<b>CC14: Socio Economic Environment</b>			<b>DSE 4</b>	

**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: Dynamics of Communication and Extension** Theory 4 credits + Practical 2 credits  
**CC 4: Resource Management** Theory 4 credits + Practical 2 credits  
**CC 5: Introduction to Textiles** Theory 4 credits + Practical 2 credits  
**CC 6: Communication Systems and Mass Media** Theory 4 credits + Practical 2 credits  
**CC 7: Personal Finance & Consumer Studies** Theory 4 credits + Practical 2 credits  
**CC 8: Human Development II: Development in Adolescence and Adulthood** Theory 4 credits  
+ Practical 2 credits  
**CC 9: Nutrition: A Life Cycle Approach** Theory 4 credits + Practical 2 credits  
**CC10: Fashion Design Concepts** Theory 4 credits + Practical 2 credits  
**CC11: Life Sciences** Theory 4 credits + Practical 2 credits  
**CC12: Physical Science** 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 2 credits =2)

- 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 & Enterprise Management** Theory 4 credits + Practical 2 credits  
**DSE 10: Interior Design & 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  
**DSE 13: 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 – 4**

(2 Credits each-Theory 2 credits or Theory 1 credit+ Practical 1 credit or Practical 2 Credits)

**SEC 1: Home Based Catering** Theory 2 credits  
**SEC 2: Maternal and Child Nutrition** Theory 2 credits  
**SEC 3: Early Childhood Care and Development** Practical 2 credits  
**SEC 4: Self Development and Well-Being** Practical 2 credits  
**SEC 5: Training and Capacity Building** Practical 2 credits  
**SEC 6: Advertising and Social Marketing** Practical 2 credits  
**SEC 7: Surface Ornamentation** Practical 2 credits  
**SEC 8: CAD in Textiles and Apparel** Practical 2 credits  
**SEC 9: Resources and Sustainable Development** Practical 2 credits  
**SEC 10: Autocad and Spatial Planning** Practical 2 credits  
**SEC 11: Understanding Psychology** Theory 2 credits  
**SEC 12: Computer Applications in Communication and Media Design** Practical 2 credits  
**SEC 13: Information, Education and Communication Material for Development** Practical 2 credits  
**SEC 14: House Keeping** Theory 2 credits  
**SEC 15: Travel and Tourism** Theory 2 credits  
**SEC 16: Nutrition Health Communication** Theory 2 credits  
**SEC 17: Biophysics** Theory 2 credits  
**SEC 18: Life Skills Education** Theory 2 credits  
**SEC 19: Activities and Resources for Child Development – I** Practical 2 credits  
**SEC 20: Activities and Resources for Child Development II** Practical 2 credits  
**SEC 21: Product Development in Textiles and Apparel** Practical 2 credits  
**SEC 22: Image Styling** Practical 2 credits  
**SEC 23: Fashion Illustration** Practical 2 credits  
**SEC 24: NGO Management & CSR** Theory 2 credits

**GENERIC ELECTIVES (For other disciplines) Total Credits -24**

(6 Credits each -Theory 4 credits + 2 Practical credits or Theory 5 credits + 1 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 5 credits + 1 Tutorial  
**GE 5: Gender and Social Justice** Theory 5 credits + 1 Tutorial  
**GE 6: Child Rights and Social Action** Theory 5 credits + 1 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 5 credits + 1 Tutorial  
**GE 10: Gender, Media and Society** Theory 5 credits + 1 Tutorial  
**GE 11: Behaviour 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 5 credits + 1 Tutorial

**GE 20: Training and Development** Theory 5 credits + 1 Tutorial

**Total Credits 84 Core+ 24 DSC + 4 SEC+ 4 AECC+ 24 GE= 140**



# 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

#### Unit IV : Middle Childhood years 15

- Physical and motor Development
- Social and Emotional development
- Cognitive and Language development

### PRACTICAL

1. Methods of study and their use
  - Interview
  - Observation
  - Narratives
2. Audio and video sources of studying prenatal development, infancy, early childhood and middle childhood period
3. Cultural practices related to pregnancy and infancy
4. Plan and develop activities to facilitate development in different domains. Preparation of material for parents children (poster, toys etc )
5. Study the role of salient others in child's life- familial and non-familial
6. Survey of selected resources for family and children in the community and the market
7. Psychological Tests

## 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 BlackSwan.

### **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 B<sub>12</sub> 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 & 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 **1**
2. Food preparation, understanding the principals involved, nutritional quality and portion size **13**

- **Beverages:** Hot tea/coffee, Milk shake/ lassi, fruit based beverages
- **Cereals:** Boiled rice, pulao, chapatti, parantha, puri, pastas
- **Pulses:** Whole, dehusked
- **Vegetables:** 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, 3<sup>rd</sup> 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: 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. | <b>3</b> |
| 2. Review of media on selected issues                                      | <b>3</b> |
| 3. Design and use of graphic media   | <b>9</b> |

**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 4: 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 & 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
2. Identification and development of self as a resource. **3**
  - SWOT analysis-who am I and Micro lab
  - Building Decision Making abilities through management games
3. Preparation of time plans for self and family **3**
4. Time and Motion Study **3**
5. Event planning ,management and evaluation-with reference to **2**
  - 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 5: INTRODUCTION TO TEXTILES (CREDITS: THEORY-4, PRACTICAL-2)

### THEORY

LECTURES: 60

#### Unit I: Introduction to textile fibres

8

- Morphology of textile fibres
- Primary and secondary properties
- Fibre classification

#### Unit II: Production, chemistry, properties and usage of fibres

16

- 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:
  - 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

- Parts of a loom
- Operations and motions of the loom
- Classification of weaves- construction, characteristics, usage

##### Knitting

6

- Classification of knits
- Construction and properties of warp and weft knits

##### Non-wovens

3

- Types
- Construction

- Properties and usage

**Unit V: Basics of Wet Processing** **5**

- Classification and uses of finishes
- Fundamentals of dyeing and printing

**PRACTICAL**

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

**RECOMMENDED READINGS:**

1. Corbman, P.B., (1985) Textiles- Fiber to Fabric (6<sup>th</sup> Edition), Gregg Division/McGraw Hill Book Co., US.
2. Joseph, M.L., (1988) Essentials of Textiles (6<sup>th</sup> 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 6: COMMUNICATION SYSTEMS AND MASS MEDIA  
(CREDITS: THEORY-4, PRACTICAL-2)**

**THEORY**

**LECTURES 60**

**Unit I: Self and Communication** **8**

- Awareness of self in communication
- Intrapersonal Communication
- Self-concept and self esteem

**Unit II: Interpersonal Communication** **12**

- 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**

- 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**

- 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.   | 3 |
| 2. Studying group dynamics in organizations- formal and informal.     | 3 |
| 3. Audience analysis- readership, listenership and viewership studies | 5 |
| 4. Content analysis of mass media                                     | 4 |

**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 7: 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. **3**
2. Evaluation and designing of informative and attractive labels of different type of food products. **3**

- |  |          |
|--|----------|
| 3. Case study of banks and post offices to understand their services and products, Learning to fill different bank forms | <b>3</b> |
| 4. Analysis of consumer redressal through case study approach under CPA.   | <b>3</b> |
| 5. Food adulteration tests   | <b>2</b> |

### **RECOMMENDED READINGS**

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

### **Core Course 8: HUMAN DEVELOPMENT II : DEVELOPMENT IN ADOLESCENCE AND ADULTHOOD (CREDITS: THEORY-4, PRACTICAL-2)**

#### **THEORY**

**LECTURES :60**

#### **Unit I: Introduction to Adolescence**

- Developmental tasks during Adolescence
- Puberty, sexual maturity, nutrition, health, and psychological well-being
- Self and identity
- Family and peer relationships
- Adolescent interface with media

#### **Unit II: Cognitive, Language and Moral development**

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

#### **Unit III: Introduction to Adulthood**

- 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**

- Diversity in roles and relationships
- Marriage-contemporary trends
- Parenting and grand parenting

## **PRACTICAL**

1. To study physical and sexual changes in adolescence
2. To study cognitive development and creativity during adolescence
3. Case profile of an adolescent- including study of self, family relationships and peer relationships.
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
5. Familiarity with Psychological Tests of Intelligence and Personality- any four

## **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 9: 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**

#### 1. Introduction to meal planning

**2**

- Rich sources of nutrients
- Use of food exchange lists

#### 2. Planning nutritious diets for:

**10**

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

#### 3. Planning nutrient rich snacks/dishes for:

**2**

- Infants (Complementary foods)
- Children/Adults

### **RECOMMENDED READINGS**

- Bamji MS, Krishnaswamy K, Brahmam GNV (2009). Textbook of Human Nutrition, 3<sup>rd</sup> 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, DiSilvestro RA (2004). Perspectives in Nutrition, 6<sup>th</sup> edition. McGraw Hill.
- Chadha R and Mathur P (eds). Nutrition: A Lifecycle Approach. Orient Blackswan, Delhi. 2015

- Gopalan C, Rama Sastri BV, BalasubramanianSC (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 10: FASHION DESIGN CONCEPTS  
(CREDITS: THEORY-4, PRACTICAL-2)**

<b>THEORY</b>	<b>LECTURES (60)</b>
<b>Unit I: Fashion</b>	<b>16</b>
<ul style="list-style-type: none"> <li>• Terminology</li> <li>• Fashion cycle</li> <li>• Sources of fashion</li> <li>• Factors favouring and retarding fashion</li> <li>• Role of a Designer</li> <li>• Leading Fashion centres and designers</li> </ul>	
<b>Unit II: Importance of clothing</b>	<b>16</b>
<ul style="list-style-type: none"> <li>• Clothing functions and theories of origin</li> <li>• Clothing terminology</li> <li>• Individuality and conformity, conspicuous consumption and emulation</li> <li>• Selection of clothes for self</li> <li>• Selection and Evaluation of ready-made garments</li> </ul>	
<b>Unit III: Components of garment: classification and application</b>	<b>20</b>
<ul style="list-style-type: none"> <li>• Fabric, seams, stitches, thread, shaping methods, dart equivalents</li> <li>• Sleeves, cuffs, necklines, collars, plackets, yokes, pockets and trims</li> <li>• Style variation: bodice, skirts, trousers in various silhouettes</li> </ul>	
<b>Unit IV: Design</b>	<b>8</b>
<ul style="list-style-type: none"> <li>• Elements and principles of design</li> <li>• Structural and applied design</li> </ul>	
<b>PRACTICAL</b>	
1. Flat sketching of garment components	<b>3</b>
2. Identification of garment components	<b>3</b>
3. Interpretation of elements and principles of design concepts from print and visual mediums	<b>6</b>
4. Study of collections of famous designers	<b>2</b>

## 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, 6<sup>th</sup> Edition, Pearson Education, USA.
- Tate S.L., Edwards M.S., 1982, The Complete Book of Fashion Design, Harper and Row Publications, New York.

## Core Course 11: 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, asafoetida
- 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)**

- 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)**

- Introduction to Biotechnology
- Significance of biotechnology to humans
- Recent trends in biotechnology

**Unit IV (6)**

- Basics of Genetics
- Genetic disease and sex linked inheritance
- Importance of Genetic counseling

**Unit V (2)**

- Vermicompositing
- Technology, importance and its relevance
- How to start a unit at home
- Maintenance and propagation

**PRACTICAL**

**SECTION A- BOTANY**

- Floral description of few angiospermic families
- Propagation of plants by seed and vegetative methods
- Identification and classification of economically important plants

**SECTION B- ZOOLOGY**

- 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. Gopaldaswamianger 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. Mc Graw Hill Science.
5. Soni N.K. and Soni V. 2010. Fundamentals of Botany. Tata Mc Graw 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 12: 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 & 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 equipments: Vacuum cleaners, Clothes washing machine, Dish washers, Food processors, Electric chimney.
- Heating appliances: 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 appliances: Refrigeration and air conditioning, Various types of Refrigerators, air conditioners and air coolers, Basic knowledge of ducting.
- Guarantee and warranty of all household equipments, Precautions while using equipments 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)                                 | 7 |
| Monosaccharides, disaccharides and polysaccharides  |   |
| 3. Separation of mixture of amino acids using paper chromatography and determination of R <sub>f</sub> 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), 7<sup>th</sup> 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, 3<sup>rd</sup> 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, 6<sup>th</sup> 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, 6<sup>th</sup> 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 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 & 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**

1. Exercise in sampling, random number table.
2. Exercise in designing tools and their analysis : 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* 4<sup>th</sup> Ed. Harcourt College Publishers
- Kothari, C. R. (2008) *Research Methodology: Methods and Techniques* 2<sup>nd</sup> 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**

#### **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**

- 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 & Frameworks.

## **Part II : Economic Theory and Environment**

### **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**

- 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**

### **Part 1 Practical**

- Changing families & relating in 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**

- 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 & 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

- i. Applications and factors affecting formation of Sols, gels, foams and emulsions
  - ii. Study of microscopic structure of different food starches and their gelatinization properties
- i. Slide preparation and identification of bacteria yeast and mold
  - ii. Assessment of hygienic practices of food handlers

3. i. Preservation of food using different methods (Blanching, Dehydration, Freezing)  
ii. Basic principle involved in food preservation using additives
4. i. Sensory evaluation methods and their applications.  
ii. Food analysis: Moisture, pH, acidity, Total soluble solids by refractometer.
5. Evaluation of Food labels

### **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](http://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), 2<sup>nd</sup> 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
- $\beta$ -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**

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

##### **2. Minerals**

- Estimation of calcium using EDTA by titration

##### **3. Vitamins**

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

#### **RECOMMENDED READINGS**

- Harper's Illustrated Biochemistry, 28<sup>th</sup> Edition, McGrawHill
- Lehninger A.L, Nelson D.L and Cox M.M (2009). Principles of Biochemistry, 6<sup>th</sup> 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.
2. Depict the 'eco-cultural' network for a child using the ecological model of Bronfenbrenner
3. Verification of selected theories using multiple methods
4. Observe/ analyze creation of media product for children or product such as toys/ clothes using theoretical base
5. Locate a tool/ scale of psychometric tests and administer it
6. Autobiography

**RECOMMENDED READINGS:**

- Berger, J.M. (2010). Personality (8<sup>th</sup> ed.). Belmont, CA: Thomson/Wadsworth
- Allen, B.P. (2006). Personality theories: Development, growth and diversity (5<sup>th</sup> ed.). Needham Heights, MA: Allyn and Bacon
- Santrock, J.W. (2007). Lifespan Development (3<sup>rd</sup> ed.). 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
2. Beliefs and practices related to children in different communities
3. Children's experiences of ethnicity/class/caste/language
4. Stories, folk songs, toys and games from diverse ethnic groups
5. Depiction of childhood in media.

**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 & Approaches to Development Communication

**Unit II Understanding Development Paradigms 15**

- Press theories: Normative: Authoritarian, Libertarian, Social Responsibility, Democratic Participant theory; Sociological: Uses & 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
- Critical analysis of selected development initiatives

- Analysis of media for development communication
- Designing media for development communication

## RECOMMENDED READINGS

- Narula, Uma (1994) Development Communication, New Delhi, Hariand Publication
- Rozer, E. & 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

1. Analysis of development programmes

2. Evaluate strategies used by development agencies for implementation of development programmes
3. 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 & 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   | <b>7</b> |
| • 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               | <b>5</b> |
| • Direct Printing- Pigment colours                |          |
| • Discharge printing- Direct dyes                 |          |
| • Resist Printing-Azo dyes                        |          |
| 3. Colour fastness of dyed fabrics                | <b>2</b> |
| • Wash fastness                                   |          |
| • Crock/Rub fastness                              |          |
| • Perspiration fastness                           |          |

## **RECOMMENDED READINGS:**

- Miles L.W.C.(1994), Textile Printing, 2<sup>nd</sup> 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, Kani Shawls of Kashmir   | <b>12</b> |
| • Embroidered Textiles-Kanthas of Bengal, Kasuti of Karnataka, Phulkari of Punjab, Chikankari of Uttar Pradesh, Kashida of Kashmir, Gujarat embroideries | <b>12</b> |
| • Painted and Printed textiles –Kalamkaris of Andhra Pradesh, Dabu printing of Rajasthan , Ajarakh prints of Gujarat                                     | <b>10</b> |
| • Dyed textiles –Bandhnis of Rajasthan and Gujarat, Ikats- Patola of Gujarat,  | <b>10</b> |

Bandhas of Orissa, TeliaRumal

**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**

- |                                      |          |
|--------------------------------------|----------|
| 1. Traditional Embroideries          | <b>3</b> |
| 2. Tie and dye                       | <b>2</b> |
| 3. Batik                             | <b>2</b> |
| 4. Block printing                    | <b>2</b> |
| 5. Portfolio and product development | <b>4</b> |
| 6. Visit to craft centers            | <b>1</b> |

**Recommended Readings:**

1. Agarwal, O.P., 1977, Care and Presentation of Museum projects – II, NRL
2. Chattopadhaya, 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. 2
2. Achievement Motivation lab-development of entrepreneurial competencies 3
3. Survey of an institution facilitating entrepreneurship development in India. 3
4. Preparation of business plan. 6

**RECOMMENDED READINGS**

- Gundry Lisa K. & Kickul Jill R.,2007, Entrepreneurship Strategy: Changing Patterns in New Venture Creation, Growth, and Reinvention, SAGE Publications, Inc.
- Taneja & 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 & Interior Design.
- Types of Design: Structural & Decorative.
- Elements of Content: Space, Point, Line, Shape, Form, Texture, Light & 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 & its Application.
  - Dimensions of color.
  - Importance of color & its role in creation of the design.
  - Color systems & Theories.
  - Color Harmonies.
  - Principles of Design as applied to color use.
  - Color Forecasting
- Design Drawing – Drawing as a language to explore & communicate Ideas.

**Unit II: Furniture & Furnishings: Historical Perspectives & 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 & 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 & 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 & Arrangement.

## **PRACTICAL**

- Drawing – Introduction to drawing instruments & tools (manual & computer tools) **2**
  - Drawing lines (freehand & with drawing instruments) - both 2-dimensional & 3-dimensional
  - Lettering
  - Sketching (figures, buildings, trees & plants, vehicles) - both 2-dimensional & 3-dimensional
  - 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 & Elements of Design; Colour - Colour Wheel, Dimension & Harmonies of Colour. **2**
- Floor plans with rendering (Theme based- Manual/Computer aided) **3**
- Elevation & perspective plans with rendering (Manual/Computer aided) **2**
- Furniture & furnishing plans of specific areas- Critical Analysis **2**
- Preparation of portfolio based on historical designs & market review of furniture and furnishing materials (upholstery, curtains and draperies, bed & table linen) **3**
  - Wall coverings & decorations (pictures, etc)
  - Floor coverings & decorations
  - Window & 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 & Bayen., (2003), The Elements of Design, Mitchell Beazley.

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

**THEORY**

**LECTURES: 60**

<b>Unit I Principles of nutrition care</b>	<b>8</b>
<ul style="list-style-type: none"><li>• Nutrition Care Process</li><li>• Therapeutic adaptations of the normal diet</li><li>• Progressive diets – clear fluid, full fluid, soft and regular</li></ul>	
<b>Unit II Etiology, clinical features and nutritional management of Infections and Fevers</b>	<b>8</b>
<ul style="list-style-type: none"><li>• Typhoid</li><li>• Tuberculosis</li><li>• HIV</li></ul>	
<b>Unit III Etiology, clinical features and nutritional management of the following</b>	<b>18</b>
<ul style="list-style-type: none"><li>• GI Tract Disorders:<ul style="list-style-type: none"><li>○ Diarrhoea</li><li>○ Constipation</li><li>○ Lactose intolerance</li><li>○ Celiac disease.</li></ul></li><li>• Liver: Infective Hepatitis</li></ul>	
<b>Unit IV Etiology, clinical features and nutritional management of</b>	<b>10</b>
<ul style="list-style-type: none"><li>• Weight Imbalances-Overweight and obesity; Underweight</li><li>• Eating disorder- anorexia nervosa and bulimia</li></ul>	
<b>Unit V Etiology, clinical features, basic diagnosis and nutritional management of the Following</b>	<b>12</b>
<ul style="list-style-type: none"><li>• Type 1 and Type 2 Diabetes Mellitus</li><li>• Metabolic Syndrome</li><li>• Hypertension and Coronary Heart Disease</li></ul>	
<b>Unit VI Food allergy and food intolerance</b>	<b>4</b>
<ul style="list-style-type: none"><li>• Etiology, clinical features, diagnosis and nutritional management</li></ul>	

**PRACTICAL**

Planning, preparation and service of diets for the following:  
Therapeutic Diets – Normal, Soft, Clear and full fluid

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

- v. Survey therapeutic foods in market

## 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 & Nutrition Therapy*, 13<sup>th</sup> ed. Saunders-Elsevier.
- Stacy Nix (2009). *William's Basic Nutrition and Diet Therapy*, 13<sup>th</sup> 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*, 4<sup>th</sup> 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, pregnant/nursing mothers for nutrition education.
2. Assessment of nutritional status:
  - 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
3. Planning and conducting a food demonstration.
4. Visit to an ongoing nutrition and health promotion programme.

#### **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, 3<sup>rd</sup> 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, Zerfas 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.
2. Workshops on relevant issues like Gender, domestic violence, gendering of public spaces
3. Understanding child rights and gender issues in diverse social groups through field visits and interactions
4. Media portrayals of women and children.

## **RECOMMENDED READINGS**

- Agarwal, A. & 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:
  - I. Physical disabilities
  - II. Intellectual disability
  - III. Sensory disabilities- Visual and auditory
  - IV. Learning disability
  - V. 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**

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 Socail 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 toInclusion*,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
2. Gender based analysis of media with special reference to portrayal of women.
3. Case studies for programmes and campaign for women's development.

### **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 & Evaluation (M & E) of Programmes 25**

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

## **Unit III: Monitoring and Evaluation (M & E) of communication for development programmes 20**

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

### **PRACTICAL**

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

### **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 & 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 & Cataloguing of fabrics
- Seasonal Trend Analysis- Colour, silhouettes & detailing, material & textures, print & graphics, accessories trends

**Unit 2: Fundamentals of Fashion Marketing** **16**

- Marketing Environment
- 4P's of Marketing
- Market: Segmentation, Targeting & Positioning
- Consumer Buying Behaviour

**Unit 3: Fashion Merchandising and Buying** **12**

- Concept of Merchandising
- Merchandise Category-Staple, Fashion & Seasonal
- Assortment Planning
- Buying Organizations & Techniques
- Inventory Management
- Pricing Objectives & Methods

**Unit 4: Fashion Brand and Product Management** **12**

- Brand Management: Meaning & Process
- Brand Management Concepts: Brand Name, Brand Attributes, Brand Identity & Image
- Product Classification & Product Lifecycle
- New Product Development: Process & Challenges

**Unit 5: Introduction to Fashion Retailing** **6**

- The Global Impact of Fashion Retailing
- Types of Retail Institutions
- Retail Promotion-Advertising, Sales promotion & Personal selling
- Visual Merchandising in Retail
- Trends in Retail industry

**Unit 6: International Fashion Trends** **5**

- Marketing in a Global Environment: Developed vs Developing
- Global Trends in Fashion Trade
- Global scenarios for a sustainable fashion industry

**PRACTICAL**

1. Fashion forecast analysis: **6**

a) To develop mood boards & theme boards

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

- b) To prepare a Catalogue of various available/sourced fabrics
- 2. Fashion Trend Report (Project) 2
- 3. Case Study of various Brands 2
- 4. Designing of promotional material 2
  - a. Catalogue-Accessories, Children's wear, men's wear, women's wear
  - b. Brochures/Leaflets
  - c. Shopping/Carry Bags
  - d. Visiting Cards
  - e. Advertisement-For print media
- 5. Analysing assortment plan for a store 2

### 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

- 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

- 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

- 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**

- Classification and application of sleeves, cuffs, collars, necklines, plackets, pockets, yokes, trims and accessories

**UNIT V: Design & Fit** **11**

- Designing for different figure types
- Fit: Fitting area, fitting guidelines, fitting procedure

**PRACTICAL**

1. Development and identification of seams, plackets, fasteners, edge finishing (binding, facing), pleats and gathers **3**
2. Development of bodice, skirt and various sleeves and collars for self **3**
3. Develop style variations in adult bodice using dart manipulation on half scale standard block **3**
4. Adaptation of basic skirt block into style variations (Half scale) **1**
5. Construction of skirt for self **2**
6. Construction of skirt top/ kurta for self **2**

**RECOMMENDED READINGS**

- Armstrong, H.J., 2009, Pattern Making for Fashion Design, Harper Collins Publishers Inc., Ney 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 Multimethod 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

<b>Unit II: The User</b>	<b>16</b>
<ul style="list-style-type: none"> <li>• Components of worker input- affective, cognitive, temporal and physical (physical, physiological, psycho-physiological aspects of work)</li> </ul>	
<b>Unit III: Work Environment</b>	<b>16</b>
<ul style="list-style-type: none"> <li>• Functional design and arrangement of workplaces</li> <li>• Work study <ul style="list-style-type: none"> <li>- Time and motion study</li> <li>- Energy Studies</li> </ul> </li> <li>• Indices of indoor comfort: ventilation, lighting, temperature, noise.</li> </ul>	
<b>Unit IV: Product Design and Development</b>	<b>14</b>
<ul style="list-style-type: none"> <li>• Concept, stages of design development</li> <li>• Design communication - Specific product design features (controls and displays), socio-psychological aspect of product designs.</li> </ul>	

## **PRACTICAL**

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

## **RECOMMENDED READINGS**

- Baiche B. & Walliman N. (eds.), 2006, Ernst and Peter Neufert Architects' Data, third edition, Blackwell Science: Indian reprint.
- Dalela S., 1983, Textbook of Work Study, 3<sup>rd</sup> 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**

<b>Unit I: Human Resources Management</b>	<b>15</b>
<ul style="list-style-type: none"> <li>• Concept, Scope and Significance</li> </ul>	

- Organisation Theories
- Human Resource Development and its challenges

**Unit II: Functions of HRD** **30**

- 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** **15**

- Concept
- Significance
- Process

**PRACTICAL**

1. Case study analysis and secondary research. **3**
2. Simulations/Presentations
  - HR Planning – Job Analysis and Design (Levels). **3**
  - Selection and Recruitment Strategies **3**
  - Interview techniques and skills (mock interview) **3**
  - Performance Appraisals – Methods **2**

**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, Prantice 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** **18**

- 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** **18**

- 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) **2**

- |   |   |
|---|---|
| 2. Critical Evaluation of independent houses and apartments.  | 2 |
| 3. Identification of building materials and evaluation concerning their characteristics (favourable and unfavourable features), uses and applications, cost and environment friendliness. | 2 |
| 4. Evaluation of buildings on energy efficiency parameters using green rating systems like GRIHA and LEED.  | 2 |
| 5. Observe and prepare house plans for different income groups up to 100 sq.m area (Computer aided /manual).  | 6 |

### RECOMMENDED READINGS

- Adler, David., 2004, Metric HandBook planning & 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. Measurement of Blood pressure by using sphygmomanometer.
3. Demonstration of normal chest X ray
4. Demonstration of Reflex action
5. Demonstration of procedures of clinical examination to see for pallor , jaundice , edema and dehydration and their importance.
6. Latest imaging techniques like USG, CT, MRI the basic procedures
7. Basic First aid procedures, CPR, Burns
8. Visit to a DOTS center
9. Preparation of a project on Antenatal Care for women
10. Preparation of a project on various contraceptive devices and understanding their basic mechanism of action.

## RECOMMENDED READINGS

- Ganong WF (2003). *Review of Medical Physiology*, 21<sup>st</sup> ed. McGraw Hill.
- J.E. Park and K. Park (2009). *Park's Textbook of Preventive and Social Medicine*, 20<sup>th</sup> 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**

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  
(12)**

**Unit I: Non Formal Education,**

- Difference between formal & Non-Formal Education, Significance of Non-Formal Education in India
- New education policy & 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 & 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
2. Inviting experts from Government/Universities/ NGO's to share their experience of Non Formal/Adult/Life Long Education.
3. Reporting of Literacy news, events from periodicals and news papers.
4. Planning and organizing NFE/ continuing education programmes
5. Monitoring and Evaluation of programmes

## 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

### LECTURES:

#### Unit: I Introduction to foundation of art and design 10

- Objectives of design : Beauty, Functionalism and Expressiveness
- Types of Design: Structural and decorative(Naturalistic, stylized, abstract and geometric; Modern and traditional design

#### Unit II Introduction to Elements and Principles of Design 30

- Elements of design: Line, Shape and form, Space, Pattern, Texture, Light, Color
- Principles of design: Balance, Harmony, Scale, Proportion, Rhythm, Emphasis

#### Unit: III Introduction to components of Interior Design 30

- Surface in Interior: wall finishes, floor finishes, ceiling finishes
- Types of Furniture and furnishings
- Types of accessories

#### Unit: IV Introduction to Hospitality Industry 30

- Importance & functions of housekeeping department in hospitality industry
- Functions and management of Food Service Department
- Introduction to front office department and personal management
- The functions of linen room and laundry
- Introduction to travel and tourism

### PRACTICAL

1. Making drawing sheet on the following
  - a) Types of lines
  - b) Patterns
  - c) Textures
  - d) Color
2. Designs-Types
3. Making Accessories: Application of elements and principles of design in creating
4. Visit to Architect Offices/ Interior Designs/ Sites/ ongoing completed projects Exhibitions/House design by project.

5. Demonstration on flower arrangement in relation to hospitality industry
6. Demonstration on Napkin folding
7. Demonstration on Table setting in Restaurants & Banquettes.
8. Visit to hotels for providing exposure to various departments of hotels to documents records functions.
9. Collect information regarding places of tourist interest from various states of India.

## 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, 2<sup>nd</sup> 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 & 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 & 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 & IBH Publishing Co., New Delhi
- Gravas Maitland (1951), The art of Color and Design (2<sup>nd</sup> Edition), McGraw Hill books Comp. Ltd., New York.
- Halse Altert O. (1978), The Use of Color in Interior (2<sup>nd</sup> 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 & Decoration, CBS Publishers & Distribution, New Delhi.

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

**THEORY**

**LECTURES: 60**

**Unit I: Epidemiology in Nutrition**

- Definition and scope of epidemiology , Health and Nutritional epidemiology
- Determinants of MCH & indicators commonly used to track maternal/ child health & 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**

- Status of maternal & 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 & 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**

- 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 & 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**

- 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**

- 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**

1. Assessing the epidemiology of a nutrition and health problems in vulnerable groups of the population & 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 & 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

## RECOMMENDED READINGS

- Basic Epidemiology, R Bonita, R Beaglehole, T Kjellström, 2nd Edition , WHO, 2006  
[http://whqlibdoc.who.int/publications/2006/9241547073\\_eng.pdf](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
- MotherCare (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

- Principles & 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 & Methods of Grading and Sizing

#### Unit II: Selection of Fabric & Accessories

- 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

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

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

### **PRACTICAL**

1. Drafting and Construction of :
  - Kameez
  - Salwaar
  - Churidar
  - Trousers
2. Different methods of sizing and grading

### **RECOMMENDED READINGS**

- Armstrong, H.J., 2009, Pattern Making for Fashion Design, Harper Collins Publishers Inc., Ney 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)**

### **Unit I: Introduction to Pattern Making**

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

### **Unit II : Basic Upper and lower sloper**

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

### **Unit III: Introduction to Draping**

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

#### **Unit IV: Designing of the Bodice**

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

#### **Unit V: Design Variations**

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

#### **PRACTICAL**

1. Development of the Bodice Block and its variations through pattern making
  - Dart manipulation
  - Contouring
  - Fullness PrinciplesSkirts, Sleeves and Collars (two each)
2. Development of basic patterns (Bodice & Skirt) Block through draping
3. Adaptation and Construction of any two designs by draping

#### **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 2)

### THEORY

LECTURES : 30

#### Unit I. Introduction to Food Service

3

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

#### Unit II. Food Production

12

- 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

4

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

#### Unit IV. Planning of A Food Service Unit

11

- **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 & Wood Levelle (1988) Food Service in Institutions 6<sup>th</sup> Edition Revised By Hargar FV, Shuggart SG, & Palgne Palacio June, Macmillian Publishing Company New York.

- Sethi Mohini (2005) Institution Food Management New Age International Publishers
- Knight J B & Kotschevar LH (2000) Quantity Food Production Planning & Management 3<sup>rd</sup> edition John Wiley & Sons
- Philip E Thangam (2008) Modern Cookery for teaching and Trade Part I & II Orient Longman
- Taneja S and Gupta SL ( 2001) Enterpreneurship development, Galgotia Publishing

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

**THEORY**

**LECTURES:30**

**Unit I 8**

- 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 7**

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

**Unit III 8**

- 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 5**

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 Brahmam GNV (Eds) (2009). Textbook of Human Nutrition, 3<sup>rd</sup> 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 2)**

#### **PRACTICAL**

##### **I: Core concepts in ECCE**

- 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
- Enhancing social and language skills
- Music, movement and drama for children

##### **II Contexts of Care and Development**

- 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 2)**

### **PRACTICAL**

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

### **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 2)**

### **PRACTICAL**

#### **1. Concept of Training**

- Training and learning
- Types of training
- Role of training and capacity building in HRD

#### **2. Training Methods and Techniques**

- Tools and techniques for training
- Evaluation of Training Programs for different stakeholders (grassroot functionaries, managers, policy makers)

#### **3. Application of Training Methods and Techniques**

- 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, NR, (2008). Advocacy Strategies and Approaches: A Training of Trainers Manual. International



## **SEC 6: ADVERTISING AND SOCIAL MARKETING (CREDITS 2 : PRACTICAL 2)**

### **PRACTICAL**

#### **1. Advertising**

- 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 & Regulations and Ethics

#### **2. Social Marketing**

- 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 2)**

### **PRACTICAL**

- |  |   |
|--|---|
| 1. Fabric manipulation –cuts, removal of threads                       | 2 |
| 2. Surface Decoration - Embroidery, Ari work, Embellishments           | 2 |
| 3. Design through color application                                    | 2 |
| • Painting   |   |
| • Dyeing- Tie and dye, Batik   |   |
| • Printing- Discharge, Resist, Block, Screen, Stencil                  |   |
| 4. Thread structure- macramé, braiding, lace making (crochet, tatting) | 2 |
| 5. Surface layering  | 2 |
| • Applique- simple, cut, felt  |   |
| • Quilting- hand and machine   |   |

- Pleats
  - Tucks
6. Product development using the above design exploration techniques 4

**RECOMMENDED READINGS:**

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

**SEC 8: CAD IN TEXTILES AND APPAREL  
(CREDITS : PRACTICAL 2)**

**PRACTICAL**

**Unit 1: Basics of Design Software 4**

- CorelDraw
- Adobe Photoshop

**Unit 2: CAD in Apparel Design 4**

- Basics of TukaCAD/Tukatech software
  - Basics of Pattern making
  - Grading
  - Layouts
  - Marker making

**Unit 3: CAD in Textile Design 4**

- Colour graphics and colour harmonies
- Motif Development
- Placements
- Usage in Textile Design (weaves, prints, embroidery)

**Unit 4: Fashion Details through CAD 2**

- Technical drawings of fashion details
- Mood Boards/Theme Boards

**SEC 9: RESOURCES AND SUSTAINABLE DEVELOPMENT  
(CREDITS 2 : PRACTICAL 2)**

**PRACTICAL**

- Introduction to concept and dimensions of sustainable development, major conferences and agreements on sustainable development - Power point presentation and group discussion 1
- MDG's and challenges to sustainable development (Climate and Global Change, Energy, Water Resources, Population, Economic Development, etc.); (Case study approach) 2

- Water/Air analysis - Lab testing and class presentation 2
- 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. 2
- Development of awareness programme on sustainable consumption practices for masses. 6
- 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. 1

**SEC 10: AUTOCAD AND SPATIAL PLANNING**  
(CREDITS 2 : PRACTICAL 2)

**PRACTICAL**

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 2
2. Structural components of a building- innovations and new materials: Foundation; Flooring; Roofs; Doors and Windows; lintels and arches; Staircase; Partitions and Panelling 1
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) 2
4. Critical Evaluation of independent houses and apartments. 1
5. Identification of building materials and evaluation concerning their characteristics (favourable and unfavourable features), uses and applications, cost and environment friendliness - Survey 1
6. Evaluation of buildings on energy efficiency parameters using green rating systems like GRIHA and LEED – Portfolio/ Field visit/ Case study 1
7. Observe and prepare house plans for different income groups up to 100 sq.m area (Computer aided /manual). 6

**SEC 11: UNDERSTANDING PSYCHOLOGY**  
(CREDITS: THEORY-2)

**THEORY**

**LECTURES: 30**

**Unit I: Introduction**

**7**

- Concept and definition of psychology: Perspectives on behavior.

- Major subfields of psychology; Psychology in modern India;
- Biological basis of human behavior.

**Unit II: Perception: 8**

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

**Unit III: Learning: 7**

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

**Unit IV: Memory: 8**

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

**RECOMMENDED READINGS:**

- Baron, R. & Misra. G. (2013). Psychology. Pearson.
- Ciccarelli, S. K., & Meyer, G. E. (2010). Psychology: South Asian Edition. New Delhi: Pearson Education
- Passer, M.W. & 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 2)**

**PRACTICAL**

**1 Computer Application Designing**

- 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**

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**

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
- Sagar Krshna (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 2)**

#### **PRACTICAL**

##### **1. Concept of IEC Material**

- 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**

- 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**

- 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 & Row publications, London
- Keval Kumar (2010) : Mass communication in India, Jaico publishing house, Ahmedabad

**SEC 14: HOUSE KEEPING  
(CREDITS: THEORY 2 )**

**THEORY**

**LECTURES:30**

**Unit I Housekeeping Department**

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

**Unit II Cleaning Activity and Pest Control**

- 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**

- 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**

- 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**

- Types of laundry systems In House, contracted out and linen on hire
- Layout plan and physical features of a laundry
- Laundry procedure: Collection, sorting & making, stain removal & Prepare washing, extractions & drying, ironing & folding, inspection, packaging, storage delivery
- Laundry supplies and materials: Water, Soaps, Detergents, Bleaches, Laundry blues, Stiffening agents & 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 & 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., 10Upper Grosvenor Street, London.

## **SEC15: TRAVEL AND TOURISM**

**(CREDITS: THEORY 2 )**

### **THEORY**

**LECTURES: 30**

#### **Unit I: Introduction to Travel and Tourism**

- a. Meaning , Significance and History of travel & 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 & Legislation**

- 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 & tourism Department of Government- Central & states: Programmes and policies

### **Unit III: Travel Agent And The Tour Operator**

- 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 & 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 & Tourism Marketing:**

- 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 aboard 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 itenery 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, HarAnand 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, Pragun 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 addition 2009

## SEC 16 : NUTRITION HEALTH COMMUNICATION (CREDITS: THEORY 2 )

### THEORY

LECTURES: 30

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

- 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

- 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

- 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

- 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**

1. Visit to an ongoing NHC program in ICDS: one rural, one urban. (eg: *matru mandal* meeting or *mahila mandal* 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](http://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 2)**

**THEORY**

**LECTURES: 30**

**Unit I: Basic aspects of biophysics**

- Measurements & 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**

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

**Unit III: Principles and Working of basic instruments**

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

#### **Unit IV: Principles and Working of advanced Instruments**

- 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 MeLoan 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 2)**

#### **THEORY**

**LECTURES: 30**

#### **Unit 1: Concept and Meaning of life skills**

- 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 & Organizing Life Skills Programs**

### **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 self-confidence, 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 2: Life Skills and Youth Development**

- 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 (5<sup>th</sup> eds), 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](http://multimedia.peacecorps.gov/.../pdf/.../M0063_lifeskillscomplete.pdf)
- Url: [www.nacoonline.org/.../AEP%20-%20Teachers%20Workbook.pdf](http://www.nacoonline.org/.../AEP%20-%20Teachers%20Workbook.pdf)

## **SEC 19: ACTIVITIES AND RESOURCES FOR CHILD DEVELOPMENT – I (CREDITS: PRACTICAL 2)**

### **PRACTICAL**

#### **1 Infancy and Toddlerhood**

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** 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**

- 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**

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

#### **5 Music and Rhythm**

- 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**

- 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, please 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, plastacine, saw dust, providing accessories.
- 6 – 8 years  
Besides above medium. Modeling with straw, match sticks rope, wire, thick paper fold and clot sculpture.  
Plasting papers on a balloon, when dry remove air and colour to create accessories for clay sculpture/crumbled 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. & 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. & Mukerjee, R. (1980). Art Basic for Young Children, Washington, D.C., NAEYC.
- Moomaw, S. (1984). Discovering Music in Early Childhood. Boston : 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. (6<sup>th</sup> Ed.).

## **SEC 20: ACTIVITIES AND RESOURCES FOR CHILD DEVELOPMENT II (CREDITS: PRACTICAL 2)**

### **PRACTICAL**

#### **1 Communication – Language Arts**

- 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**

- 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, folks 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**

- 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 1<sup>st</sup> to 20<sup>th</sup>.
    - Operations of addition, subtraction and multiplication.

### **4 Environmental Science and Social Studies**

- 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. & 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 : Ullasmay Abhyas (1995).
- Taylor, B.J. (1988). A child goes Forth. (6<sup>th</sup> ed.). Minneapolis: Burgess Publishing Co.

**SEC 21: PRODUCT DEVELOPMENT IN TEXTILES AND APPAREL  
(CREDITS: PRACTICAL 2)**

**PRACTICAL**

**1. Concept Development**

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

**2. Design Instigation**

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

**3. Analysis and Selection**

- 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**

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

**5. Fabrication**

- Construction of the final product
- Display of the article

**6. Cost Analysis**

- 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 & Rudradatt (1986) Indian Economy , Sultanchand & Sons.
- Wingate J.W., Schaller E.O. & Miller F. L.(1972) Retail Merchandise Management, Prentice Hall, New Jersey.



**SEC 22: IMAGE STYLING  
(CREDITS: PRACTICAL 2)**

**PRACTICAL**

1. Physical traits and personality
  - Body and figure types
  - Body proportion
  - Figure type & problems
  - Personality
2. Figure analysis – identifying you physical self and facial features
3. Physical attractiveness – its determinants and social effects
4. Concepts and principles of design
  - Effects of design elements and principles on clothing
  - Fashion fundamentals
  - Development of future fashion trends of garments and accessories
5. Personality and dressing
  - Principles of illusion dressing
  - Personal style expression
  - Etiquette and personal grooming
  - Colour and personal style analysis
6. Identifying clothing needs and wardrobe planning
  - Wardrobe analysis and organization
  - Wardrobe style identification
  - Organization and categorization of wardrobe
  - Elements of a basic wardrobe
  - Tips of garment maintenance
7. Personal shopping
  - 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 (2<sup>nd</sup> ed), New York: W.W. Norton
- Phares, J.E. 1991, Introduction to Personality (3<sup>rd</sup> ed), New York: Harper Collins

**SEC 23: FASHION ILLUSTRATION  
(CREDITS: PRACTICAL 2)**

**PRACTICAL**

1. Introduction to fashion illustration
  - vocabulary
  - tools
  - body proportion and balance

2. Human anatomy
  - 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
  - Collecting and studying textures
  - Working with different media and techniques to simulate textures
4. Rendering fabric textures
  - 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
  - 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 & CSR (CREDITS: THEORY 2)**

**THEORY**

**LECTURES :30**

### **Unit 1 Concept of NGO**

- 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**

- 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**

- 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**

- Training
- Recruitment
- Funding
- Resource Mobilization
- Documentation

### **Learning Experiences**

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 B<sub>12</sub> 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

2

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

#### 2. Introduction to Meal Planning

12

- 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*. 4<sup>th</sup> 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 1 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** **3**

- Use of food exchange list

**Unit II: Planning and preparation of diets and dishes for** **10**

- Young adult
- Pregnant and Lactating woman
- Preschool child
- School age child and adolescents
- Elderly

**Unit III: Planning complementary foods for Infants** **1**

**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*, 6<sup>th</sup> 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 1 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)**

<b>THEORY</b>	<b>LECTURES: 60</b>
<b>Unit I. Introduction to Food Service Units</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• Origin of Food Service units</li> <li>• Kinds of food service units</li> </ul>	
<b>Unit II. Menu Planning</b>	<b>8</b>
<ul style="list-style-type: none"> <li>• Importance of menu,</li> <li>• Factors affecting menu planning,</li> <li>• Types of menu</li> </ul>	
<b>Unit III. Organization &amp; Management</b>	<b>6</b>
<ul style="list-style-type: none"> <li>• Principles of management</li> <li>• Functions of management/ manager</li> </ul>	
<b>Unit IV. Food Production Process</b>	<b>18</b>
<ul style="list-style-type: none"> <li>• Food purchase and receiving</li> <li>• Storage</li> <li>• Quantity food production: Standardization of recipes, Recipe adjustments and portion control, Quantity food production techniques</li> <li>• Food service</li> <li>• Food hygiene and sanitation</li> </ul>	
<b>Unit V: Space and Equipment</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• Types of kitchen areas, Flow of work and work area relationship</li> <li>• Equipment               <ol style="list-style-type: none"> <li>a) Factors affecting selection of equipment</li> <li>b) Equipment needs for different situations</li> </ol> </li> </ul>	



<b>Unit V: Financial Management</b>	<b>5</b>
<ul style="list-style-type: none"> <li>• Importance of Financial Management</li> <li>• Budgets and Budgeting process</li> <li>• Cost concepts</li> </ul>	
<b>Unit VI: Personnel Management</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• Functions of a personnel manager,</li> <li>• Factors to consider while planning the kind and number of personnel: Menu, type of operations, Type of service, Job description and job specification</li> </ul>	
<b>Unit VII: Planning of A Small Food Service Unit</b>	<b>12</b>
<ul style="list-style-type: none"> <li>• <b>Preliminary Planning</b> Survey of types of units, identifying clientele, menu, operations and delivery</li> <li>• <b>Planning the set up:</b> <ul style="list-style-type: none"> <li>a) Identifying resources</li> <li>b) Developing Project plan</li> <li>c) Determining investments</li> </ul> </li> <li>• <b>Development of a business plan</b></li> </ul>	

## **PRACTICAL**

1. Market survey for food items both raw and processed	<b>1</b>
2. Survey of food service units	<b>1</b>
3. Standardization of a recipe	<b>2</b>
4. Preparing Quick Foods for scaling up for quantity production	<b>2</b>
5. Planning menus for the following:	<b>6</b>
<ul style="list-style-type: none"> <li>• Packed meals for office employees</li> <li>• Nutritious tiffins for school children</li> <li>• School/college canteens</li> </ul>	
6. Demonstration of a specialized cuisine	<b>1</b>
7. Develop a checklist for good hygiene practices	<b>1</b>

## **RECOMMENDED READINGS:**

- West B Bessie & Wood Levelle (1988) Food Service in Institutions 6<sup>th</sup> Edition Revised By Hargar FV, Shuggart SG, & Palgne Palacio June, Macmillian Publishing Company New York.
- Sethi Mohini (2005) Institution Food Management New Age International Publishers
- Knight J B & Kotschevar LH (2000) Quantity Food Production Planning & Management 3<sup>rd</sup> edition John Wiley & Sons
- Dessler Gary (1987) Personnel Management, Modern Concepts & Techniques Prentice Hall New Jersey

- Tripathi P C ( 2000) Personnel management 15<sup>th</sup> ed Sultan Chand, New Delhi
- Kazarian E A ( 1977) Food Service facilities Planning 3<sup>rd</sup> Edition Von Nostrand Reinhold New York
- Kotas Richard & Jayawardardene. C (1994) Profitable Food and Beverage Management Hodder & Stoughton Publications
- Longree K, Langree K, Longrie K ( 1996) Quantity Food sanitation, John Wiley & sons
- Roday .S ( 2003) Food Hygiene & Sanitation , Tata Mc Graw Hill publication Ltd
- Taneja S and Gupta SL ( 2001) Enterpreneurship development, Galgotia Publishing

**GE 4: CURRENT CONCERNS IN PUBLIC HEALTH NUTRITION  
(CREDITS : THEORY 5 , TUTORIAL 1 )**

**THEORY**

**LECTURES: 75**

**Unit I: Nutritional problems affecting the community** **25**

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

**TUTORIAL**

1. Planning and evaluation of low cost nutritious recipes for preschoolers, school age children, adolescents, pregnant and nursing mothers. **9**
2. Planning and evaluation of low calorie nutritious recipes for weight management. **2**
3. Planning and conducting a food demonstration. **2**
4. Visit to an ongoing nutrition programme. **1**

## **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, 3<sup>rd</sup> 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 Brahmam GNV (Eds) (2009). Textbook of Human Nutrition, 3<sup>rd</sup> edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.

## **GE 5: GENDER AND SOCIAL JUSTICE (CREDITS : THEORY 5 , TUTORIAL 1 )**

### **THEORY**

**LECTURES: 75**

#### **Unit I: Understanding Gender**

**18**

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

**18**

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

#### **Unit IV: Gender Justice**

**19**

- Women's movement in India
- Laws, policies & 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 5 , TUTORIAL 1 )

### THEORY

LECTURES: 75

#### Unit I: Introduction to Child Rights

25

- 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 & child herself in protecting rights

#### Unit II: Vulnerable Groups: Causes and Consequences

25

- 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

25

- Role of state in protection of child rights
- Laws for children- Indian & international
- Constitutional provisions in India
- National policies and programs
- Institutional & 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**

<b>Unit I: Care and Human Development</b>	<b>15</b>
<ul style="list-style-type: none"><li>• Definition, concepts &amp; relevance of care</li><li>• Vulnerable periods in life that require care</li><li>• Principles &amp; components of care</li></ul>	
<b>Unit II: Well-being and Human Development</b>	<b>15</b>
<ul style="list-style-type: none"><li>• Concept of well-being-- physical, psychological, spiritual</li><li>• Life crises and well-being</li><li>• Factors &amp; experiences that promote well-being</li></ul>	
<b>Unit III: Care &amp; well-being at different stages of life</b>	<b>20</b>
<ul style="list-style-type: none"><li>• Childhood years</li><li>• Adolescence</li><li>• Adulthood and old age</li><li>• Well-being of caregivers</li></ul>	
<b>Unit IV: Policies, Services &amp; Programs</b>	<b>10</b>
<ul style="list-style-type: none"><li>• School health programs</li><li>• Nutrition &amp; health for all</li><li>• Counselling &amp; yoga</li></ul>	

**PRACTICAL**

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

**RECOMMENDED READINGS**

- IGNOU. (2011). Positive psychology-2, MCFT-006 Applied social Psychology. New Delhi: IGNOU.
- Santrock, J.W. (2007). Life Span Development (3<sup>rd</sup> ed.). 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 & well-being: Psychosocial care within & 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 & hormonal changes in puberty
- Ecological and cultural influences on adolescence
- Processes in identity formation: social identities, gender & well being

**Unit II: Adolescent Relationships: Role in building social capital 20**

- Family relationships: in nuclear, extended & joint families
- Peer relationships: identity formation, knowing one's strengths & 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**

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

## 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 - 5, TUTORIAL - 1)

### THEORY

LECTURES: 75

#### Unit I: Understanding mass media

25

- 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

25

- 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

25

- 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

### TUTORIAL

- 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, 2<sup>nd</sup> 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 - 5, TUTORIAL - 1)**

**THEORY**

**LECTURES: 75**

**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**

**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**

**20**

- 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**

**20**

- 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

### **TUTORIAL**

- 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& 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, 2<sup>nd</sup> 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**

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.& Rice, R.E. (2012) Theory and Principles of Public Campaigns. In C. Atkins & 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**

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. & Arunachalam, V. (2005). *Information and Communications Technology for Sustainable Development*. Bangalore: Allied Publishers
- Weigel, G. & 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

12

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

#### Unit II: Adoption of fashion

5

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

#### Unit III: Development of fashion details

12

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

- |   |          |
|---|----------|
| 1. Technical drawing of fashion details: skirts, bodices, sleeves, necklines, collars, accessories. | <b>4</b> |
| 2. Applied and in- seam pockets   | <b>2</b> |
| 3. Style reading and Development of paper patterns of various collars and sleeves                   | <b>4</b> |
| 4. Design variations in bodice through dart manipulation  | <b>2</b> |
| 5. Design variations in skirt on half scale templates   | <b>2</b> |

**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, 6<sup>th</sup> 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 & 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 | <b>4</b> |
| 2. Designing and construction of a Tote Bag   | <b>3</b> |
| 3. Restyling project - Restyling of plain accessories using creative techniques   | <b>3</b> |
| 4. Final Project – Based on an inspiration, the students are required to design a collection of accessories                 | <b>3</b> |
| 5. Project report and Presentation  | <b>2</b> |

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

**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. & 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** **5**

- Types – traditional and modern
- 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 & Laharia** **4**

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

**2. Embroidery** **5**

- Demonstration of traditional hand stitches
- Interaction with artisan
- Development of bags/pouches yokes/borders for a desired product

**3. Printing** **5**

- 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. **2**
2. Achievement Motivation lab-development of entrepreneurial competencies **3**
3. Survey of an institution facilitating entrepreneurship development in India. **3**
4. Preparation of business plan. **6**

## **RECOMMENDED READINGS**

- Gundry Lisa K. & Kickul Jill R.2007, Entrepreneurship Strategy: Changing Patterns in New Venture Creation, Growth, and Reinvention, SAGE Publications, Inc.
- Taneja & 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 & Interior Design.
- Types of Design: Structural & Decorative.
- Elements of Content: Space, Point, Line, Shape, Form, Texture, Light & 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 & communicate Ideas.

#### **Unit II: Furniture & Furnishings: Historical Perspectives & 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 & 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 & 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 & Arrangement.

## **PRACTICAL**

- Drawing **2**  
Introduction to drawing instruments & tools (manual & computer tools)
  - Drawing lines (freehand & with drawing instruments) - both 2-dimensional & 3-dimensional.
  - Lettering.
  - Sketching (figures, buildings, trees & plants, vehicles) - both 2-dimensional & 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 & Elements of Design; Color- Color Wheel, Dimension & Harmonies of Color. **2**
- Floor plans with rendering (Theme based- Manual/Computer aided) **3**
- Elevation & perspective plans with rendering (Manual/Computer aided) **3**
- Furniture & furnishing plans of specific areas- Critical Analysis **2**
- Preparation of portfolio on any one of the following **2**
  - Wall coverings & decorations (pictures, etc)
  - Floor coverings & decorations.
  - Window & 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 & Bayen., (2003), The Elements of Design, Mitchell Beazley.

## GE 19: FACILITIES AND SERVICE MANAGEMENT (CREDITS : THEORY 5 , TUTORIAL 1 )

### THEORY

LECTURES: 75

#### 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 25

- 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 & Services Management 30

- Strategy for Facilities & Services
  - Six Sigma applied in facilities and services management
  - Service quality management and control - internal audits - social accountability
  - Occupational health & 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 5, TUTORIAL 1 )**

**THEORY** **LECTURES: 75**

**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** **30**

- 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** **25**

- 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

