

# **UNIVERSITY OF DELHI**

**Scheme of Examination**

**and**

**Courses of Reading**

**for**

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

**Department of Home Science**

**Faculty of Science**



**University of Delhi**

**2011 – 2012**

## B.Sc. Home Science (Hons.) Food and Nutrition

- 24 courses + Environmental Studies (online)
- Theory (4 credits) – 4 periods/ week + 1 Interactive period/week
- Practical (2 credits) – 4 periods/ week

### Semester I

<b>Paper – 1</b> Applied Physical Sciences HSHT - 101	<b>Paper – 2</b> Foundations of Food and Nutrition HSHT 110	<b>Paper – 3</b> Introduction to Human Development HSHT - 130	<b>Paper -4</b> Technical writing in English/ Computational skills ENAT - 101/CSAT-101	<b>Paper – 5</b> Technical writing in English/ Computational skills ENAT -201/CSAT -201	<b>Paper – 6</b> Foundation of Resource Management HSHT - 220	<b>Paper – 7</b> Foundation of Fabric and Apparel Science HSHT - 240	<b>Paper – 8</b> Dynamics of Human Communication HSHT - 250
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### Semester II

### Semester III

<b>Paper – 9</b> Fundamentals of Sociology HSHT - 302	<b>Paper – 10</b> Applied Life Sciences HSHT - 303	<b>Paper – 11 (Major I)</b> HSHT – 311/321/331/341/351	<b>Paper -12 (Major II)</b> HSHT – 312/322/332/342/352	<b>Paper – 13</b> Fundamentals of Psychology HSHT - 404	<b>Paper - 14 (Major III)</b> HSHT – 413/423/433/443/453	<b>Paper – 15 (Major IV)</b> HSHT- 414/424/434/444/454	<b>Paper – 16 Minor I</b> (Select Different from Major III) HSHT – 413/423/433/443/453
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### Semester IV

### Semester V

<b>Paper – 17</b> Economics HSHT - 505	<b>Paper – 18 (Major V)</b> HSHT – 515/525/535/545/555	<b>Paper -19 (Major- VI)</b> HSHT – 516/526/536/546/556	<b>Paper – 20 Minor II</b> (Selected Different from Major V) HSHT – 515/525/535/545/555	<b>Paper – 21</b> Physiology and Promotive Health HSHT - 606	<b>Paper – 22 (Major VII)</b> HSHT – 617/627/637/647/657	<b>Paper – 23 (Major VIII)</b> HSHT – 618/628/638/648/658	<b>Paper24 (Major IX)</b> HSHT- 619/629/639/649/659
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### Semester VI

Paper No.	Code	Title	Theory		Practical	
			Maximum Marks	Duration	Maximum Marks	Duration
<b>Year-1</b>						
<b>Semester-I</b>						
1	HSHT -101	Applied Physical Sciences	100	3	50	3
2	HSHT -110	Foundations of Food and Nutrition	100	3	50	3
3	HSHT -130	Introduction to Human Development	100	3	50	3
4.	ENAT – 101 CSAT - 101	Technical Writing in English	100	3	50	3
		Computational Skills	100	3		
<b>Semester – II</b>						
5	ENAT - 201/ CSAT - 201	Technical writing in English Computational Skills	100 100	3 3	- 50	- 3
6	HSHT - 220	Foundations of Resource Management	100	3	50	3
7	HSHT - 240	Foundation of Fabric of Apparel Science	100	3	50	3
8	HSHT - 250	Dynamics of Human Communication	100	3	50	3

- The College will have the option to take either of the two papers in a particular semester for a particular course, while student have to appear in both the papers.
- In addition there shall be one qualifying paper in self – learning mode called Environmental

Studies offered in Semester II.

Paper No.	Code	Title	Theory	Practical		
			Max Marks	Duration	Maximum Marks	Duration
<b>Year -2</b>						
<b>Semester - III</b>						
9	HSHT - 302	Fundamentals of Sociology : Society and Culture	100	3	-	-
10	HSHT - 303	Applied Life Sciences	100	3	50	3
<b>Any one of the following Group (2 Papers Major)</b>						
<b>I Food And Nutrition</b>						
11	HSHT- 311	Nutrition for Adults and elderly	100	3	50	3
12	HSHT - 312	Fundamentals of Food Science	100	3	50	3
<b>II Resource Management</b>						
11	HSHT - 321	Personal Finance and Consumer Studies	100	3	50	3
12	HSHT - 322	Space planning and design	100	3	50	3
<b>III Human Development</b>						
11	HSHT - 331	Development in the early years	100	3	50	3
12	HSHT - 332	Theories of Human Development	100	3	50	3
<b>IV Fabric &amp; Apparel Science</b>						
11	HSHT - 341	Fabric Science I	100	3	50	3
12	HSHT - 342	Apparel design and Construction I				
<b>V Communication And Extension</b>						
11	HSHT - 351	Communication Systems	100	3	50	3
12	HSHT - 352	Gender and Society	100	3	50	3

<b>Semester IV</b>						
13	HSHT - 404	Fundamentals of Psychology: Behavioural processes	100	3	–	–
<b>Any one of the following Specializations (2 Papers - Major)</b>						
<b>I Food And Nutrition</b>						
14	HSHT - 413	Nutrition for Children And Adolescents	100	3	50	3
15	HSHT - 414	Public Nutrition	100	3	50	3
<b>II Resource Management</b>						
14	HSHT - 423	Human Resource Management	100	3	50	3
15	HSHT - 424	Resources and Sustainable Development	100	3	50	3
<b>III Human Development</b>						
14	HSHT - 433	Childhood in India	100	3	50	3
15	HSHT - 434	Development in Middle Childhood and Adolescence	100	3	50	3

<b>IV Fabric And Apparel Science</b>						
14	HSHT- 443	Fashion Studies	100	3	50	3
15	HSHT - 444	Apparel Design And Construction II	100	3	50	3
<b>V Communication And Extension</b>						
14	HSHT - 453	Mass Communication	100	3	50	3
15	HSHT - 454	Extension Programme Design and Management	100	3	50	3
<b>Any one of the following papers from an area other than the Specialization area (Minor- 1)</b>						
16	HSHT - 413	Nutrition for Children And Adolescents	100	3	50	3
	HSHT –423	Human Resource Management	100	3	50	3
	HSHT - 433	Childhood in India	100	3	50	3
	HSHT- 443	Fashion Studies	100	3	50	3
	HSHT - 453	Mass Communication	100	3	50	3
<b>Year – 3</b>						
<b>Semester V</b>						
17	HSHT - 505	Economics	100	3	50	3
<b>Any one of the following Specialization (Major – 2 Papers)</b>						
<b>I Food And Nutrition</b>						
18	HSHT - 515	Nutritional Biochemistry I	100	3	50	3
19	HSHT - 516	Diet Therapy I	100	3	50	3
<b>II Resource Management</b>						
18	HSHT - 525	Entrepreneurship Development and Enterprise Management	100	3	50	3
19	HSHT - 526	Design Appreciation and Product Design	100	3	50	3
<b>III Human Development</b>						
18	HSHT - 535	Child Rights and Social Action	100	3	50	3
19	HSHT - 536	Development in Adulthood	100	3	50	3
<b>IV Fabric And Apparel Science</b>						
18	HSHT- 545	Indian textile Heritage	100	3	50	3

19	HSHT - 546	Fabric Science II	100	3	50	3
<b>V Communication And Extension</b>						
18	HSHT - 555	Training And Advocacy	100	3	50	3
19	HSHT - 556	Development Communication	100	3	50	3
<b>Any one of the following papers from an area other than the Specialization area (minor : 2)</b>						
20	HSHT - 515	Nutritional Biochemistry I	100	3	50	3
	HSHT - 525	Entrepreneurship Development and Enterprise Management	100	3	50	3
	HSHT - 535	Child Rights and Social Action	100	3	50	3
	HSHT - 545	Indian textile Heritage	100	3	50	3
	HSHT - 555	Training and Advocacy	100	3	50	3
<b>Semester VI</b>						
21	HSHT - 606	Physiology and Promotive Health	100	3	–	–
<b>Any one of the following Specialization (Major –3 Papers)</b>						
<b>I Food And Nutrition</b>						
22	HSHT - 617	Principles of Food Processing	100	3	50	3
23	HSHT - 618	Diet Therapy II	100	3	50	3
24	HSHT - 619	Nutritional Biochemistry II	100	3	50	3
<b>II Resource Management</b>						
22	HSHT - 627	Organizational Behaviour	100	3	50	3
23	HSHT - 628	Ergonomic Design	100	3	50	3
24	HSHT - 629	Total Quality Management	100	3	50	3
<b>III Human Development</b>						
22	HSHT - 637	Care and well-being in Human Development	100	3	50	3
23	HSHT - 638	Gender And Social Justice	100	3	50	3
24	HSHT - 639	Childhood Disability	100	3	50	3
<b>IV Fabric And Apparel Science</b>						
22	HSHT - 647	Dyeing And Printing	100	3	50	3
23	HSHT - 648	Design : Concepts and Application	100	3	50	3
24	HSHT - 649	Marketing and Merchandising	100	3	50	3
<b>V Communication And Extension</b>						
22	HSHT - 657	Sustainable Development	100	3	50	3
23	HSHT - 658	Journalism – Theory and Practice	100	3	50	3
24	HSHT - 659	Advertising and Public Relations	100	3	50	3

## **B.Sc. (Honours) HOME SCIENCE**

### **PREAMBLE**

B.Sc. (Honours) Home Science Course has been running in Two Colleges of University of Delhi in annual mode and was last revised in the year 2004. From 2011 onwards, it will follow the semester mode. The course would be of 3 years duration, divided into 3 parts – Part I, part II, and Part III. Each part would consist of 2 semesters. There will be 4 papers including practicals in each semester, thus making a total of 24 papers plus one course in Environmental Studies in self-learning mode at the end of 2<sup>nd</sup> semester.

- Home Science has five streams,

Food and Nutrition,  
Resource Management,  
Human Development,  
Fabric and Apparel Science, and  
Communication and Extension.

The student passing out of B.Sc. (Hons.) Home Science will be majoring in anyone of the above 5 streams.

- There shall be 16 Papers of Home Science, 10 from the major stream selected and 6 from other streams of Home Science.
- There shall be 6 interdisciplinary papers from science and humanities. Remaining 2 papers will be Technical Writing and Communication in English and Computational Skill. Thus making a total of 24 papers. This new course will commence from the academic session 2011-2012.
- The Curriculum endeavors to provide students a broad based training in Home Science with a solid background of basic concepts. Each student begins with exposure to all the 5 areas of Home Science in the 1<sup>st</sup> and 2<sup>nd</sup> Semester.
- From 3<sup>rd</sup> Semester the student chooses a specialization area of her choice and takes nine papers of major area spread in 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> Semester.
- In 4<sup>th</sup> and 5<sup>th</sup> Semester the student chooses 2 major papers offered from the other 4 areas of specialization, which from the minor.
- This will ensure that every student following the Honours course and specialization in one area of Home Science will have 10 papers in the area of specialization (major) and 6 papers from other 4 areas as minors.
- Home Science being an applied science, the syllabus has been prepared keeping in view the unique requirements of B.Sc. Home Science students. Practical and field experience are an essential part of the learning process. Laboratory work has been integrated in all areas of specialization.
- For each paper the objectives have been listed and the contents divided into units.

- The detailed syllabus for each paper is appended with a list of suggested readings.

Teaching time allotted for each paper shall be 4 periods for each theory paper and 4 periods for each practical class per week and 1 tutorial period for each paper per week. Each practical batch should ideally be between 15-20 students. This is because practicals require individual attention for imparting training to the students.

The Student who leaves the portals of the institution with B.Sc. (Hons.) Home Science would be an independent and confident person who has acquired knowledge of self, professional and communication skills. Thus, she would be able to reach out to the world and pay back to society debt which every student from an institution of higher learning is obliged to do.

### **Goal of Home Science**

Home Science aims to provide an integrated and multidisciplinary education, which develops and provides professional skills. The goals could be summarized thus:

1. Professional training and skill enhancement in order to provide and widen employment opportunities for women through a continuously updated curriculum, addressing contemporary issues.
2. Equally, updating the process of teaching, networking and developing educational materials based on innovative, interactive and participatory communication strategies.
3. Strengthening linkages with international organizations, government agencies, non- governmental academic institutions, policy makers and the general public with a view to providing employment opportunities for students and enriching the database in research in all fields.
4. Extension education in the field of nutrition and health , women and child development, apparel and fabric design, consumer education and public awareness with a view to better family and community living.

# APPLIED PHYSICAL SCIENCES

## THEORY

<b>Paper No.</b>	<b>: HSHT-101</b>
<b>Maximum Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

### SECTION –A

### CHEMISTRY

#### OBJECTIVES

To equip the students with adequate knowledge of materials used in everyday life and their health hazards

#### CONTENTS

#### PERIODS

<b>UNIT I Polymers (Ch 22 Chawla / Ch 3 Jain and Jain)</b>	<b>8</b>
a. Introduction, classification, general properties, compounding of polymers, outline of fabrication methods and health hazards.	
b. Thermoplastics: Chemical structure, properties and uses of PE, PVC, PS, PMMA, PVAc, Teflon, polyester (PET), polyamides (Nylon 6 and Nylon 66) and aramids.	
c. Thermosetting resins: Chemical structure, properties and uses of phenol formaldehyde, urea formaldehyde and melamine formaldehyde resins.	
<b>UNIT II (Ch 6, 7 Jain and Jain / Ch 21 Chawla / Ch 7 Jacob)</b>	<b>6</b>
<b>Household Metals</b>	
Characteristics of metals, types of corrosion, tarnishing, prevention of corrosion, merits and demerits in the household use of the following metals and their alloys: iron, steel, copper, aluminium and silver.	
<b>UNIT III (Ch 3, 4 Jacob)</b>	<b>6</b>
<b>a. Essential oils:</b> Introduction, characteristics and methods of extraction.	
<b>b. Cosmetics:</b> Creams, powders, depilatories and hair dyes.	
<b>UNIT IV (Ch 26 Behl and Behl / Ch 1 Ahluwalia and Kidwai)</b>	<b>4</b>
<b>a. Soaps and detergents</b>	
<b>b. Green Chemistry:</b> Need for green Chemistry, 12 principles of green Chemistry, examples of green synthesis: ibuprofen and paracetamol.	

## SECTION –B

### PHYSICS

#### OBJECTIVES

1. To study the principle, construction and working of various gadgets in the home.
2. To familiarize the students with some basic concepts in Modern Physics.

#### CONTENTS

#### PERIODS

#### UNIT I (Ch 6 Avery / Ch 10, 14, 16 Pickett)

4

##### Motorized equipments

Vacuum cleaners, Clothes washing machine, Dish washers, Food processors, Electric chimney.

#### UNIT II (Ch 7 Avery / Ch 7, 13 Pickett)

5

##### 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.

#### UNIT III (Ch 1, 9 Bhatia)

6

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

#### UNIT IV (Ch 5, 11, 12, 19, 54 Murugesan)

##### Modern Physics and Electronics

- Semi Conductors – Concept of Transistor and its applications
- Television – Transmission and reception, concept of colour television.
- Geostationary satellites
- X- Rays – Production, properties and uses.
- Radioactivity – concept and application, Nuclear Energy, Radiation hazards.
- Concept of Laser and its applications.
- Recording and reproduction of Sound – various methods.

## RECOMMENDED READINGS

- Household Physics by Avery, Macmillan Co., New York, 1956.
- Household Equipment by Pickett, John Wiley and Sons, USA, 1975.
- Murugesan, Modern Physics, S. Chand and Co., 2002.
- Bhatia, K.B., Elements of Electrical Gadgets, Arya Book Depot, 1993.

## APPLIED PHYSICAL SCIENCES

### PRACTICAL

<b>Paper No.</b>	<b>: HSHP-101</b>
<b>Maximum Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Teaching Periods</b>	<b>: 4/week</b>
<b>Teaching Load</b>	<b>: 12 Practicals/ Semester (4 periods each)</b>

### SECTION A

### CHEMISTRY

#### CONTENT

#### PRACTICALS

#### I. Volumetric Analysis

2

##### a. Redox titration

- Estimation of available oxygen in hydrogen peroxide
- Estimation of chlorine in hypochlorite solution

##### b. Precipitation titration

- Estimation of salinity in saline water

#### II. Mixture Analysis: (2 anions and 2 cations)

3

Anions: acetate, carbonate, chloride, nitrate, sulphate, borate.

Cations: ammonium, lead, cupric, aluminium, ferric, zinc, nickel, barium, calcium, magnesium.

#### III. Preparation

1

- Glucosazone

- Mohrs salt

### SECTION B

# PHYSICS

## CONTENTS

## PRACTICALS

6

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

### 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

1. Practical Organic Chemistry by Vogel A. I., Orient Longmans Limited.
2. Textbook of Quantitative Inorganic Chemistry by Vogel A. I., Orient Longmans Limited.
3. B.Sc. Practical Chemistry by P. L. Soni and S. C. Jain, Sultan Chand and Sons.
4. College Practical Physics by Khanna and Gulati, S. Chand and Co., 1999.
5. B. Sc. Practical Physics by C.L. Arora, S. Chand and Co, 1963.
6. Oral questions with answers on Practical Physics by Khare and Gangal, Atma Ram and Sons, 1967.

## FOUNDATIONS OF FOOD AND NUTRITION

### THEORY

<b>Paper No.</b>	:	<b>HSHT- 110</b>
<b>Maximum Marks</b>	:	<b>100</b>
<b>Credits</b>	:	<b>4</b>
<b>Teaching Periods</b>	:	<b>4 Theory + 1 Interactive Period/ week</b>
<b>Teaching Load</b>	:	<b>48 Theory Periods + 12 Interactive Periods/ semester</b>

### OBJECTIVES

This course will enable the student to:

1. Understand the relationship between food, nutrition and health.
2. Understand the functions of food.
3. Learn about various food groups, balanced diet and principles of meal planning.
4. Understand digestion, absorption and function of various nutrients and their sources.
5. Learn about the various methods of preparing food.

## CONTENT

## PERIODS

<b>Unit I: Introduction to Food and Nutrition (Ch 1 Srilakshmi)</b>	<b>2</b>
<ul style="list-style-type: none"> <li>• Basic terms used in study of food and nutrition</li> <li>• Understanding relationship between food, nutrition and health</li> </ul>	
<b>Unit II: Balanced Diet (Ch 2 Wardlaw et al / Ch Srilakshmi)</b>	<b>5</b>
<ul style="list-style-type: none"> <li>• Functions of food-physiological, psychological and social.</li> <li>• Concept of Balanced Diet, Food Groups, Food Pyramid, Food Exchange List</li> <li>• Principles of Meal Planning</li> </ul>	
<b>Unit III: Nutrients (Ch 1, 2, 3, 4, 5, 7, 13 Bamji et al et al)</b>	<b>33</b>
Classification, digestion, absorption, functions, dietary sources, RDA, clinical manifestations of deficiency and excess of the following in brief: <ul style="list-style-type: none"> <li>• Energy</li> <li>• Carbohydrates, lipids and proteins</li> <li>• Fat soluble vitamins-A, D, E and K</li> <li>• Water soluble vitamins – thiamin, riboflavin, niacin, pyridoxine, folate, vitamin B<sub>12</sub> and vitamin C</li> <li>• Minerals – calcium, iron, iodine, fluorine and zinc</li> </ul>	
<b>Unit IV: Methods of Cooking (Ch 1 Srilakshmi)</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• Dry, moist, frying and microwave cooking</li> <li>• Advantages, disadvantages and the effect of various methods of cooking on foods</li> </ul>	
<b>Unit V: Nutritional Improvement of Foods (Ch 1 Srilakshmi)</b>	<b>4</b>
Nutrient losses in cooking and enhancing the nutritional quality of foods	

### RECOMMENDED READINGS

- Bamji MS, Krishnaswamy K, Brahman GNV (2009). Textbook of Human Nutrition, 3<sup>rd</sup> edition. Oxford and IBH Publishing Co. Pvt. Ltd.
- Srilakshmi (2010). Food Science, 5th Edition. New Age International Ltd.
- Wardlaw MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition, Mosby

## FOUNDATIONS OF FOOD AND NUTRITION PRACTICAL

<b>Paper No.</b>	<b>:</b>	<b>HSHP-110</b>
<b>Maximum Marks</b>	<b>:</b>	<b>50</b>
<b>Credits</b>	<b>:</b>	<b>2</b>
<b>Teaching Periods</b>	<b>:</b>	<b>4 / week</b>
<b>Teaching Load</b>	<b>:</b>	<b>12 Practicals/ semester (4 periods each)</b>

## OBJECTIVES

This course will enable the student to:

1. Acquire skill in food preparation techniques.
2. Use appropriate methods of cooking for preparation of specific food products.
3. Observe and understand the principles involved in preparation of different foodstuffs.
4. Understand nutritive contribution of different preparations.
5. Learn rich sources of various nutrients.
6. Understand basic principles of meal planning and the use of food exchange list.

## CONTENT

## PRACTICALS

1. Working instructions, weights and measures, and table setting	1
2. Identification of food sources for various nutrients	1
3. Food preparation, understanding the principles involved, nutritional quality and portion size of: 10-12 dishes used in daily diet such as: chapatti, boiled rice, pulse preparation, curry preparation, seasonal vegetables, snacks, desserts etc.	
4. i. Introduction to diet planning using food exchange list ii. Diet Planning of adult male / female	3
5. i. Record diet of self using 24 hour dietary recall ii. Nutritional analysis of recorded diet and understand lacunae that need improved iii. Assessment of weight and height of self and calculation of BMI iv. Evaluation of own diet and weight status	3

## RECOMMENDED READINGS

- 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.
- NIN, ICMR (1990). Nutritive Value of Indian Foods.
- 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.
- Seth V, Singh K (2005). Diet planning through the Life Cycle: Part 1. Normal Nutrition. A Practical Manual, Fourth edition, Elite Publishing House Pvt Ltd.

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## INTRODUCTION TO HUMAN DEVELOPMENT

### THEORY

<b>Paper No.</b>	<b>: HSHT - 130</b>
<b>Maximum Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

## OBJECTIVES

1. To introduce the subject of Human Development and Childhood Studies
2. To learn about fundamental principles and relevance of the subject
3. To understand stages in a life span
4. To study prenatal development

<b>CONTENT</b>	<b>PERIODS</b>
<b>Unit I: Introduction (Ch 1, 2 Santrock)</b>	<b>12</b>
<ul style="list-style-type: none"> <li>• Definitions of Human Development</li> <li>• Brief history and interdisciplinary nature</li> <li>• Human Development as a scientific discipline and its place in Home Science</li> <li>• Scope of the subject in contemporary society</li> </ul>	
<b>Unit II: Lifespan Approach to Development (Ch 3 Santrock)</b>	<b>12</b>
<ul style="list-style-type: none"> <li>• Domains and stages of development</li> <li>• Principles of growth and development</li> <li>• Biological and environmental influences</li> </ul>	
<b>Unit III: Prenatal development, birth and the neonate (Ch 4 Santrock)</b>	<b>16</b>
<ul style="list-style-type: none"> <li>• Reproduction and fertility</li> <li>• Prenatal development</li> <li>• Birth and the neonate: Capacity of the newborn, physical appearance, sensory and perceptual abilities, reflexes</li> </ul>	
<b>Unit IV: Care during pregnancy and infancy (Ch 3, 4 Swaminathan)</b>	<b>8</b>
<ul style="list-style-type: none"> <li>• The pregnant woman: care, nourishment, health and well-being</li> <li>• Cultural practices during pregnancy</li> <li>• Alternate forms of parenthood</li> <li>• Risk factors during prenatal period</li> <li>• Care during infancy: health, nutrition and relationships</li> <li>• Play during infancy</li> </ul>	

### **RECOMMENDED READINGS**

- Santrock, J. W. (2006). Child development. New York: McGraw Hill.
- Swaminathan, M. (1998). The first five years: A critical perspective on early childhood care and education in India. New Delhi: Sage.

## **INTRODUCTION TO HUMAN DEVELOPMENT**

### **PRACTICAL**

<b>Paper No.</b>	<b>: HSHP - 130</b>
<b>Maximum Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Practical periods</b>	<b>: 4/Week</b>
<b>Practical load</b>	<b>: 12 Periods/ Semester</b>

## CONTENT

## PRACTICALS

- |  |   |
|--|---|
| 1. Approaches to the study of children   | 1 |
| 2. Methods of study in human development   | 6 |
| a. Observation   |   |
| b. Interview   |   |
| c. Narrative   |   |
| d. Psychometric techniques   |   |
| 3. Exploring sources of information about children and their families using print and audio-visual media | 3 |
| 4. Cultural practices related to pregnancy and infancy (Project)   | 2 |

## TECHNICAL WRITING AND COMMUNICATION IN ENGLISH

### THEORY

<b>Paper No.</b>	:	<b>ENAT-101/201.</b>
<b>Maximum Marks</b>	:	<b>100</b>
<b>Credits</b>	:	<b>4</b>
<b>Teaching Periods</b>	:	<b>4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	:	<b>48 Theory Periods + 12 Interactive periods / semester</b>

## CONTENT

- Unit I:** Communication: Language and communication, differences between Speech and writing, distinct features of speech, distinct features of writing.
- Unit II:** Writing Skills of topic, thesis statement, developing the thesis; Introductory, development, transitional and concluding paragraph, linguistic unity, coherence and cohesion, descriptive, narrative, expository and argumentative writing.
- Unit III:** Technical Writing: Scientific and technical subjects; formal and informal writings; formal writing/ reports, handbooks, manual, letters memorandum, notice, agenda, minutes; common errors to be avoided.

## SUGGESTED READINGS

- Daniel G. Riordan & Steven A. Panley: “ Technical Report Writing Today” – Biztantra.
- L. Hamp-Lyons and B. Heasley: Study Writing; A course in written English. For academic and professional purposes, Cambridge Univ. Press.
- M. Frank. Writing as thinking: A guided process approach, Englewood Cliffs, Prentice Hall Regents.

- R. Quirk, S. Greenbaum, G. Leech and J. Svartik: A comprehensive grammar of the English language, Longman, London.

## ADDITIONAL REFERENCE BOOKS

- Contemporary Business Communication, Scot Ober, Biztantra, 5<sup>th</sup> Edition (2004).
- Daniel G. Riordan, Steven E. Pauley, Biztantra: Technical Report Writing Today, 8<sup>th</sup> Edition (2004).

## COMPUTATIONAL SKILLS

### THEORY

<b>Paper No.</b>	:	<b>CSAT-101 /201.</b>
<b>Maximum Marks</b>	:	<b>100</b>
<b>Credits</b>	:	<b>4</b>
<b>Teaching Periods</b>	:	<b>4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	:	<b>48 Theory Periods + 12 Interactive periods / semester</b>

### CONTENT

### PERIODS

<b>Unit 1: Computer Fundamentals</b>	<b>12</b>
<ul style="list-style-type: none"> <li>• Introduction to Computer: Characteristics of Computers, Uses of Computers, Types and generations of Computers.</li> <li>• Basic Computer Organization – Units of a computer, CPU, ALU, memory hierarchy, registers, I/O devices</li> <li>• User Interface with the Operating System, System Tools</li> </ul>	
<b>Unit 2: Data Representation</b>	<b>8</b>
<ul style="list-style-type: none"> <li>• Binary representation of integers and real numbers, 1's Complement, 2's Complement</li> <li>• Addition and subtraction of binary numbers, BCD, ASCII, Unicode;</li> </ul>	
<b>Unit 3: Network terminology</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• Types of network, router, switch, server-client architecture</li> </ul>	
<b>Unit 4: Multimedia</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• Introduction, Characteristics, Elements, Applications</li> </ul>	
<b>Unit 5: Problem Solving</b>	<b>10</b>
<ul style="list-style-type: none"> <li>• Notion of algorithms, stepwise methodology of developing an algorithm, developing macros in spreadsheet</li> </ul>	
<b>Unit 6: General Awareness</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• IT Act, System Security (virus/ firewall etc.), I- Tax, Reservations, Banking</li> </ul>	

## COMPUTATIONAL SKILLS

## PRACTICAL

<b>Paper No.</b>	:	<b>CSAP – 101/201.</b>
<b>Maximum Marks</b>	:	<b>50</b>
<b>Credits</b>	:	<b>2</b>
<b>Teaching Periods</b>	:	<b>4 / week</b>
<b>Teaching Load</b>	:	<b>12 Practicals / semester (4 periods each)</b>

### CONTENT

### PRACTICALS

1. Defined project will be done by the student and evaluated by the instructor.
2. Document Preparation
3. Presentation Software
4. Familiarizing with the Operating System, Control Panel, Networking Configuration, Firewall setting
5. Spreadsheet Handling, Working with worksheets, Creating a spreadsheet, entering and formatting information, basic functions and formulas, creating charts, tables and graphs.

### SUGGESTED BOOK

- Anita Goel, **Fundamentals of Computers**: Forthcoming title in Pearson -Education
- V Rajaraman, **Fundamentals of Computers**, Fourth Edition, PHI.

**Note:** Use of Open Office/ Star Office is recommended, as they are freely downloadable.

Reference manual for Open Office available at: <http://www.openoffice.org>

Reference manual for Star Office available at: <http://www.sun.com/software/staroffice>

## FOUNDATIONS OF RESOURCE MANAGEMENT

### THEORY

<b>Paper No.</b>	:	<b>HSHT - 220</b>
<b>Max. Marks</b>	:	<b>100</b>
<b>Credits</b>	:	<b>4</b>
<b>Teaching Periods</b>	:	<b>4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	:	<b>48 Theory Periods + 12 Interactive periods / semester</b>

### OBJECTIVES

1. To understand the fundamentals of resource management in a changing scenario.
2. To inculcate skills in identifying, creating, selecting and using available resources judiciously with emphasis on maximization and conservation.
3. To understand the scientific application of the process of management in the judicious use of resources.

## CONTENT

## PERIODS

### **Unit I: Introduction to Resource Management (Ch 1, 2 Koontz and Donnel / Ch 1, 2 Stoner)**

8

- Concept and scope of management
- Universality of management
- Approaches to management
- Ethics in management
- Motivation Theory

### **Unit II: Resources (Part 2 Nickell and Dorsey)**

10

- Meaning, definition, importance and characteristics of resources.
- Identification and classification of resources, including natural resources – water, air, Land (fuels and Green cover).
- Factors affecting utilization of resources.
- Maximizing use of resources.
- Resource conservation – importance and methods.
- Availability of Resources: -Introduction, Lifecycle, Transition & Usage
  - Self
  - Family
  - National
  - Global

### **Unit III: Process of Management: An overview (Ch 7, 8, 9, 10, 11, 12 Rao and Narayana)**

20

- Decision Making – importance, types, steps, method of resolving conflicts
- Planning – nature, characteristics, importance
- Organizing; Coordinating, Supervising, directing and guiding; Controlling characteristics for effective control
- Evaluation – meaning, importance and methods
- Application of Management Process in:
  - Time, Energy, Money Management
  - Event Planning & Execution

### **Unit IV: Resource Management: Domains and Application (Ch 14 Stoner / Ch 11 Kreitner)**

10

- Concepts, Scope, Dimensions & future trends of:
  - Product Design
  - Sustainable Development
  - Training and Development
  - Consumer Studies

## 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
- Nickell, P., & Dorsey, J.M., Management in family living (4th Edition). New York NY: Wiley.

- Rao V.S. and Narayana P.S., Principles and Practices of Management, 2007, Konark Publishers Pvt. Ltd.
- Stoner J., 2008, Management. PHI Learning.

## **FOUNDATIONS OF RESOURCE MANAGEMENT PRACTICAL**

**Paper No.** : HSHP - 220  
**Maximum Marks** : 50  
**Credits** : 2  
**Teaching Periods** : 4/week  
**Teaching Load** : 12 Practicals/ Semester (4 periods each)

### **OBJECTIVES**

1. To familiarize the students with the available resources, their uses and conservation.
2. To enable the students to utilize resources in a prudent manner.

### **CONTENT**

### **PRACTICALS**

- |   |          |
|---|----------|
| 1. Resource conservation and optimization/green technologies (natural resources): Portfolio | <b>1</b> |
| 2. Identification and development of self as a resource.                                    | <b>4</b> |
| - SWOT analysis-who am I and Micro lab  |          |
| - Building Decision Making abilities through management games                               |          |
| 3. Preparation of time plans for self and family  | <b>3</b> |
| 4. Time and Motion Study  | <b>4</b> |
| - Managerial process  |          |
| - Resource optimization - time, money, products, space, human capital                       |          |

## **FOUNDATION OF FABRIC AND APPAREL SCIENCE**

### **THEORY**

**Paper No.** : HSHT- 240  
**Maximum Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

### **OBJECTIVES**

1. To familiarize the students with terminology related to textiles and apparel.
2. To impart knowledge to identify fabrics and relate it to specific products, keeping in mind fabric properties and characteristics.
3. To enable intelligent selection, use and care of textiles and garments in relation to the individual.
4. To give the basic knowledge of design and fashion.

5. To acquaint the students with the importance of Indian textile industry.
6. To impart an appreciation of traditional textiles of India.

<b>CONTENT</b>	<b>PERIODS</b>
<b>UNIT I Introduction to fabric and apparel science (Ch 1 Sekhri)</b>	<b>2</b>
<ul style="list-style-type: none"> <li>• Components</li> <li>• Career opportunities</li> </ul>	
<b>UNIT II Fabric science (Ch 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 Sekhri / Ch 1, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 Corbman)</b>	<b>18</b>
<ul style="list-style-type: none"> <li>• Fibre <ul style="list-style-type: none"> <li>-Introduction to fibre polymer</li> <li>-Morphology of textile fibres</li> <li>-Primary and secondary properties</li> <li>-Fibre classification: source and origin, chemistry and properties of generic groups</li> </ul> </li> <li>• Yarn <ul style="list-style-type: none"> <li>-Classification: simple, complex</li> <li>-Properties: twist, yarn number</li> </ul> </li> <li>• Fabric Construction <ul style="list-style-type: none"> <li>-Weaving</li> <li>-Knitting</li> <li>-Non-woven</li> <li>- Others (braids, nets and laces)</li> </ul> </li> <li>• Finishes <ul style="list-style-type: none"> <li>-Classification of finishes</li> <li>-Routine and functional finishes</li> <li>-Dyeing and printing</li> </ul> </li> </ul>	
<b>UNIT III Apparel concepts (Ch 3, 4, 2, 6 Marshall et al)</b>	<b>9</b>
<ul style="list-style-type: none"> <li>• Why do we dress the way we do?</li> <li>• Clothing functions and theories of origin</li> <li>• Clothing terminology</li> <li>• Individuality and conformity, conspicuous consumption and emulation</li> <li>• Evaluating the figure: Figure types-standard, ideal &amp; symmetrical figure, asymmetrical figure, posture evaluation</li> </ul>	
<b>UNIT IV Selection of ready-made garments &amp; their evaluation (Ch 2, 3, 4, 6 Marshall et al)</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• Sizing in readymade garments</li> <li>• Selection of readymade garments (fit, workmanship, cost, appearance) &amp; their evaluation</li> </ul>	
<b>UNIT V Design and fashion (Ch 9, 10, 11, 12, 13 Marshall et al)</b>	<b>5</b>
<ul style="list-style-type: none"> <li>• Elements and principles of design in textiles and clothing</li> <li>• Fashion-definition, terms, sources, cycle, factors favoring and retarding fashion</li> </ul>	
<b>UNIT VI Indian textile and ready made garment industry (Ch 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13 Ghosh)</b>	<b>7</b>

- Importance of Indian textile industry – historical significance and economic importance, main centers for fabric production
- Sectors of textile industry
- Organization of RMG industry & apparel industry
- Traditional Indian textiles

**UNIT VII: Care and maintenance of textiles and apparel (Ch 9, 10, 11, 12 D’souza) 3**

- Laundry aids- soaps, detergents, bleaches, blueing and stiffening agents
- Principles of laundry and dry cleaning
- Labels and standards

**RECOMMENDED READINGS**

- Corbman P. B., (1989), Textiles- Fibre to Fabric, 6<sup>th</sup> edition, Mc Graw Hill, New York.
- D’souza, N., (1998), Fabric Science, New Age International Pvt. Ltd., Delhi.
- Darlie.O.Koshy (2008), Indian Design Edge, Lotus Collection, Delhi.
- Ghosh, G.K., and Ghosh, Shukla (1995), Indian Textiles, APH Publishing Co., New Delhi
- 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.
- Sekhri S., (2011) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi.

**FOUNDATION OF FABRIC AND APPAREL SCIENCE**

**PRACTICAL**

**Paper No. : HSHP - 240**  
**Maximum Marks : 50**  
**Credits : 2**  
**Teaching Periods : 4/Week**  
**Teaching Load : 12 Practicals/ Semester (4 periods each)**

<b>CONTENT</b>	<b>PRACTICALS</b>
1. Identification of generic group of fibres by visual & burning test.	1
2. Stain removal	2
3. Care and maintenance of different fibre fabrics- cotton, wool and silk: pre preparation, washing, blueing, stiffening.	1
4. Hand stitches	2
• Functional: basting, running, backstitch, hemming, overcasting, button hole	
• Decorative stitches-chain, stem, lazy-daisy, satin, herringbone, French knot and bullion stitch.	
5. Sewing machine: parts and their functions, basic operations, machining along straight, curve, corners, spiral and reverse.	2
6. Fasteners: Hook and eye, press button, velcro, button.	1
7. Tie and Dye using different techniques	2
8. Evaluation of Ready-made garments	1
• Size labels	
• Symbols and usage of care labels	

# DYNAMICS OF HUMAN COMMUNICATION

## THEORY

<b>Paper No</b>	<b>: HSHT- 250</b>
<b>Maximum Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

## OBJECTIVES

1. To introduce the student to the concept of human communication and its components.
2. To understand the concept of extension and its inter-relationship with communication.
3. To study the various tools and techniques in the process of communication.

## CONTENT

## PERIODS

**Unit I: Communication: Concepts (Ch 1 Devito / Ch 1 Barker / Ch 2 Zeusehner / Ch 23, 2, 5, 26 Dahama)** **14**

- Historical background, concept, nature, scope and functions of Communication.
- Postulates/principles of Communication
- Elements of Communication and their characteristics

**Unit II: Understanding Human Communication (Ch 1 Barker / Ch 4, 7, 16 Devito)** **12**

- Models of Communication
- Barriers to Communication
- Empathy and perception- concept, relevance to communication process
- Use of signs, symbols and codes in communication.

**Unit III: Types of Communication (Ch 5 Zeuschner / Ch 2, 3 Barker / Ch 9, 10 Devito)** **10**

- Types of communication transactions
- Formal and informal communication
- Verbal communication- principles of listening, role of language, symbols and meaning
- Non-verbal communication- nature and functions

**Unit IV: Communication, Extension and Media (Ch 1, 2, 3, 6 Kumar & Hansra / Ch 3 Dahama/ Ch 1 Punhani et al)** **12**

- Concept and goals of extension, relationship between communication and extension
- Principles of extension, extension programmes in India.
- Communication techniques and extension methods - classification, characteristics and selection

## RECOMMENDED READINGS

- Barker, L. (1978). "Communication", New Jersey: Prentice Hall, Inc; 171.
- Devito, J. (1998) Human Communication. New York: Harper & Row.

- Dahama, O.P. and Bhatnagar, O.P., (2003), Education and Communication for Development, New Delhi, Oxford and IBH Publishing Co. Pvt. Ltd.
- Kumar, B. and Hansra, 2000; Extension education for Human Resource Development, Concept Publishers, New Delhi.
- Zeuschner, Raymond F (1997). Communicating Today. Allyn and Bacon publishers.
- Punhani G., Aggarwal S., Bansal S., (2009). Media for Effective Communication , Elite Publishers, Delhi

## **DYNAMICS OF HUMAN COMMUNICATION**

### **PRACTICAL**

**Paper No** : HSHP - 250  
**Maximum Marks** : 50  
**Credits** : 2  
**Teaching Periods** : 4/week  
**Teaching Load** : 12 Practical/ Semester (4 periods each)

### **OBJECTIVES**

1. To familiarize the students with various communication methods and media.
2. To develop skills in preparation, presentation and evaluation of select methods and media.

### **CONTENT**

### **PRACTICALS**

- |  |   |
|--|---|
| ● Developing skills in planning and conducting small group exercises | 4 |
| ● Review of media on selected issues                                 | 4 |
| ● Design and use of graphic media                                    | 4 |

## **FUNDAMENTALS OF SOCIOLOGY: SOCIETY AND CULTURE**

### **THEORY**

**Paper no.** : HSHT- 302  
**Max marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

### **CONTENT**

### **PERIODS**

- UNIT I: Society, structure, function and process: definitions, interrelationship and scope (Ch 6, 9 Abraham/ Ch 1 Inkeles/ Ch 14 Madan & Majumdar)** **14**
- Social group : definition, characteristics, types and functions

- Social stratification: caste and class as forms of social inequality

**UNIT II: Culture (Ch 3, 4 Herskovits / Ch 2 Madan & Majumdar/ Ch 4 Abraham) 10**

- Definition, nature and functions of culture
- Cultural relativism and ethnocentrism
- Evolution, diffusion and acculturation: as processes of cultural change

**UNIT III: Village India (Ch 27, 30 Bhushan / Ch 9 Abraham) 12**

- Village India: demographic dimensions, nature and changes in community with relevant ethnographic data.
- Social change and social Mobility: Sanskritisation, Westernisation, Modernisation, Industrialisation and Urbanisation.

**UNIT IV: Social Institutions (Ch 4, 6 Madan & Majumdar/ Ch 11 Abraham) 12**

- Marriage and family: Definition, nature and forms.
- Kinship: terminology and usages

**RECOMMENDED READINGS**

- Abraham, M.F., (2006) Contemporary Sociology: An Introduction to Concepts and Theories, New York; Oxford University Press
- Bhushan, V., (2005) An Introduction to Sociology, Allahbad Kitab Mahal
- Herskovits, M. J. (1955). Cultural Anthropology. Oxford and IBH Publishing Company, New Delhi.
- Inkeles, A. (1964). What is Sociology?. Prentice Hall of India, New Delhi.
- Madan, T. N. and Majumdar, D. N. (1986). An Introduction to Social Anthology. National Publishing house.

**APPLIED LIFE SCIENCES**

**THEORY**

<b>Paper No.</b>	:	<b>HSHT- 303</b>
<b>Max. Marks</b>	:	<b>100</b>
<b>Credits</b>	:	<b>4</b>
<b>Teaching Periods</b>	:	<b>4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	:	<b>48 Theory Periods + 12 Interactive periods / semester</b>

**OBJECTIVES**

1. To make them aware of the role of biotechnology in improving food production.
2. The knowledge of propagation of plants by seeds, and by other vegetative methods.
3. To equip the students with the knowledge of cell biology and genetic engineering.
4. To know about common pests and parasites, with emphasis on harmful effects, transmission and control.

**CONTENTS**

**PERIODS**

**PART – A (BOTANY)**

<b>UNIT I: Diversity of Life (Ch 27, 28, 29, 30 Raven)</b>	<b>6</b>
<ul style="list-style-type: none"> <li>• Classifying the diversity of life – Prokaryotes, Eukaryotes and Archaea</li> <li>• Classification of plants with examples, Characters of Algae, Fungi, Bryophyta, Pteridophyta and Gymnosperms.</li> </ul>	
<b>UNIT II: Microbiology: Role of microbes in (Ch 2, 3, 6 Pelezar et al)</b>	<b>6</b>
<ul style="list-style-type: none"> <li>• Fermented beverages</li> <li>• Antibiotics</li> <li>• Mycotoxins</li> <li>• Single cell protein</li> <li>• Spoilage of food</li> <li>• Plant diseases and their control</li> <li>• Microbes as Biofertilizers</li> </ul>	
<b>UNIT III: Propagation of plants – seed and vegetative (Ch 6, 7, 10, 11, 13, 14, 15 Hartman and Kester)</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• Seed Propagation</li> <li>• Cuttings – stem, leaf and root</li> <li>• Layering</li> <li>• Grafting</li> </ul>	
<b>UNIT IV: Biotechnology and its application in Agriculture (Ch 6, 8 Singh)</b>	<b>3</b>
<ul style="list-style-type: none"> <li>• Transgenic Plants – Examples of genetically modified plants, safety procedures and ethical issues</li> <li>• Tissue culture – its importance in plant Breeding.</li> </ul>	
<b>UNIT VII: Ecology (Ch 53, 55, 56, 57 Raven et al / Ch 1, 2, 3, 4 Odium)</b>	<b>5</b>
<ul style="list-style-type: none"> <li>• Major Biomes</li> <li>• Energy flow through an ecosystem – food chains, food web, trophic levels, food pyramids.</li> <li>• Population explosion.</li> <li>• Conservation of biodiversity</li> <li>• Ecofriendly farming</li> </ul>	

## **SECTION – B (ZOOLOGY)**

<b>UNIT I: Cell Biology (Ch 5, 14 Raven et al)</b>	<b>4</b>
<ul style="list-style-type: none"> <li>• Cell as a unit of life.</li> <li>• Human Chromosomes – structure and functions.</li> <li>• DNA as the carrier of genetic information, DNA replication, RNA and protein synthesis.</li> </ul>	
<b>UNIT II: Biotechnology: Principles and processes (Ch 15, 16 Raven et al)</b>	<b>6</b>
<ul style="list-style-type: none"> <li>• Genetic Engineering</li> <li>• Bioremediation</li> <li>• Stem cell technology</li> <li>• DNA fingerprinting, gene therapy, PCR</li> <li>• Transgenic animals</li> </ul>	

**UNIT III: Genetics - Inheritance Principles for common hereditary diseases (CH 4, 19 Gardner) 4**

- Mongolism, Sickle cell anemia, Thalesemia, Diabetes, Sex-linked inheritance, Genetic counseling and Pedigree analysis.

**UNIT IV: Human parasites: Their Transmission, prevention and Control (Ch 7, 9, 32, 35, 37 Kotpal) 4**

- Entamoeba, Plasmodium, Tapeworm, Ascaris, Filaria, Swine Flu

**UNIT V: Insects as Pests, Vectors and Manageable Resource (Ch 51, 52 Kotpal / Ch 1, 2, 3 Vij and Gupta) 6**

- Important Insects Pests and their Control
- Insects as Vectors
- Economically Important Insects

**Suggested Books**

- Gardner E.J., (2009) Principles of Genetics, John Wiley and sonsInc. Delhi.
- H.T. Hartman and D. Kester: Plant propagation, Principles and Practices (Prentice Hall of India Pvt. Ltd., New Delhi, 1986).
- Kotpal Modern Text Book of Zoology (Rastogi publications – 2008).
- Odum, E.P., (2008). Fundamentals of Ecology. Indian Edition. Brooks/Cole.
- Pelezar M.J., Chan and Krieg: Microbiology (Mcgraw Hill Book Company, New York, 1986).
- Raven, P.H et.al (2005) Biology 7<sup>th</sup> Edition Tata McGraw Hill Publications, New Delhi.
- Singh B.D., (2005) Biotechnology, 2<sup>nd</sup> Edition, Kalyani Publishers.
- Vij and Gupta, (2001) Applied Zoology, Phoenix Publishing house.

**APPLIED LIFE SCIENCES**

**PRACTICALS**

<b>Paper No.</b>	<b>:</b>	<b>HSHP- 303</b>
<b>Maximum Marks</b>	<b>:</b>	<b>50</b>
<b>Credits</b>	<b>:</b>	<b>2</b>
<b>Teaching Periods</b>	<b>:</b>	<b>4/week</b>
<b>Teaching Load</b>	<b>:</b>	<b>12 Practical/ Semester (4 periods each)</b>

**PART – A (BOTANY)**

1. Demonstration of pot filling for transplanting an annual, seed pan for sowing seeds and Repotting. 2
2. Propagation of plants by vegetative methods: 4  
Cutting, layering, budding and grafting
3. Identification and classification of some fungi, bacteria and yeast. 2
4. Identification and classification of economic plants – spices and condiments, herbs and medicinal plants. 2
5. Identification and classification of some commonly grown ornamental and foliage plants. 2

**PART – B (ZOOLOGY)**

1. Preparation of temporary mounts:-
  - Blood film and ABO Blood Group Determination 2
  - Cell division (Meiosis) 2
2. Identification and study of adults through slides and specimen mentioned in unit – 4 & 5. 5

3. Pedigree analysis of some human inherited traits  
DNA extraction (Demonstration)

2

## NUTRITION FOR ADULTS AND ELDERLY

### THEORY

<b>Paper No.</b>	:	<b>HSHT- 311</b>
<b>Maximum Marks</b>	:	<b>100</b>
<b>Credits</b>	:	<b>4</b>
<b>Teaching Periods</b>	:	<b>4 Theory + 1 Interactive Period/ week</b>
<b>Teaching Load</b>	:	<b>48 Theory Periods + 12 Interactive Periods/ semester</b>

### OBJECTIVES

This course will enable the student to:

1. Understand the principles of planning nutritionally adequate meals.
2. Exercise food choices consonant with good health based on sound knowledge of principles of nutrition.
3. Acquire knowledge about the nutritional needs and concerns of an individual through the adult years.

### CONTENT

### PERIODS

#### **Unit I: Principles of Meal Planning (Ch 2, 3, 4 Khanna et al / Ch 1 Wardlaw et al) 4**

- Overview of balanced diets, Dietary guidelines for Indians
- Food exchange lists
- Factors affecting food choices – life style practices, availability of foods, attitudes towards food, safety considerations, nutrition information and misinformation
- Traditional foods and regional dietary patterns

#### **Unit II: Nutrient Requirements (Ch 12 Bamji et al et al) 4**

- Concept of minimum nutrient requirements and recommended dietary allowances
- General methods of assessment of RDA for nutrients

#### **Unit III: Energy Metabolism (Ch 8 Wardlaw et al / Ch 14 Bamji et al) 6**

- Concept of energy balance
- Components of energy expenditure and factors affecting the same
- Physiological fuel factors
- Methods for assessing energy needs

#### **Unit IV: Protein Quality (Ch 4 Stacy / Ch 5 Wardlaw et al) 5**

- Definition
- Biological and chemical methods of assessment
- Factors affecting protein quality
- Methods of improving protein quality

**Unit V: Nutrition through the adult years (Ch 5, 6, 9 Khanna et al / Ch 15, 16, 17  
Wardlaw et al / Ch 10, 11, Stacy) 25**

- Adults – Nutrition for adult man and woman, nutritional concerns, diet and lifestyle related diseases and their prevention
- Pregnancy – Physiological changes in pregnancy, 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, nutritional needs of a nursing mother, feeding the baby
- Elderly – Life expectancy, physiological changes in elderly, nutritional and health concerns in old age and their management, factors contributing to longevity

**Unit VI: Nutrition and Infection (Ch 16 Bamji et al)**

**4**

- Interaction between immunity, nutrition and infection
- Impact of malnutrition on immunity and occurrence of infections
- Effect of Infection on nutritional status

**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. New Delhi.
- Khanna K., Gupta S, Passi SJ, Seth R, Mahna R and Puri S (1997). Textbook of Nutrition and Dietetics. Phoenix Publishing House, New Delhi.
- Stacy Nix (2009) William's Basic Nutrition and Diet Therapy, 13<sup>th</sup> Edition. Elsevier Mosby.
- Wardlaw GM, Hampl JS, Disilvestro RA (2004). Perspectives in Nutrition, 6<sup>th</sup> edition, McGraw-Hill, Boston.

**NUTRITION FOR ADULTS AND ELDERLY  
PRACTICAL**

<b>Paper No.</b>	<b>: HSHP- 311</b>
<b>Maximum Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 12 Practical/ semester (4 periods each)</b>

**OBJECTIVES**

This course will enable the student to:

1. Identify food sources of various nutrients.
2. Critically analyze nutrition information on food labels.
3. Plan and prepare nutritionally adequate diets for adults and elderly based on sex, activity, and physiological conditions, regional and socio-economic categories.

**CONTENT**

**PRACTICALS**

1. Identification of nutrient rich sources of foods, their seasonal availability and price, study of nutrition labelling on selected foods

**2**

2. Planning, preparation and evaluation of adequate diets using Food Exchange Lists to suit different socioeconomic groups for: 8

- Adults
- Pregnant and nursing mothers
- Elderly

3. Planning nutritious snacks/dishes for adults, pregnant women, nursing mothers and elderly 2

### RECOMMENDED READING

- ICMR (1989). Nutritive Value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad, India.
  - Seth V and Singh K (2005). Diet Planning through the Life Cycle: Part I - Normal Nutrition, A Practical Manual. 4<sup>th</sup> Edition. Elite Publishing House Pvt. Ltd., New Delhi.
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## PERSONAL FINANCE AND CONSUMER STUDIES

### THEORY

**Paper No.** : HSHT - 321  
**Max. Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive Period/ week  
**Teaching Load** : 48 Theory Periods + 12 Interactive Periods/ semester

### OBJECTIVES

1. To familiarize the student with the changing socio-economic environment and consumer behavior.
2. To strengthen the financial management practices of the students for wise consumer behavior.
3. To develop an understanding of the types of markets, changing concepts of markets, changes in socio-economic environment, and marketing strategies from consumer's perspective.
4. To have an overview of the consumer problems, consumer movement and consumer protection

### CONTENT

### PERIODS

<b>Unit I: Consumer in India (Ch 2 Sawhney and Mittal)</b>	<b>8</b>
<ul style="list-style-type: none"><li>• Definition of a consumer</li><li>• Role of consumers in the economy</li><li>• National Income, Per Capita Income, Household wise distribution of income</li><li>• Changing nature of the business world –e-commerce, e-business</li></ul>	
<b>Unit II: Family Income and Expenditure (Ch 3 Seetharaman &amp; Sethi)</b>	<b>12</b>

- Family 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, wealth tax, inheritance & gift tax

**Unit III: Consumer Problems and Consumer Education (Ch 16 Sawhney & Mital)**

14

- Types of consumer problems – products and service related, deceptive, institution and market related, policy related, investment and infrastructure related.
- Causes and solutions to consumer problems
- Consumer education- objectives and strategies
- Empowerment of consumers through education and awareness
- Consumer behaviour- factors affecting, models
- Role of family in decision making
- Guidelines for wise buying practices

**Unit IV: Consumer Protection (Ch 3,4,5,6 Khanna)**

14

- Consumer protection and movement in India
- 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
- Buying aids- labels, packaging, advertising, buying guides

**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.

**PERSONAL FINANCE AND CONSUMER STUDIES**

**PRACTICAL**

<b>Paper No.</b>	<b>: HSHP- 321</b>
<b>Max. Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Teaching Periods</b>	<b>: 4/Week</b>
<b>Teaching Load</b>	<b>: 12 Periods/Semester (4 Periods each)</b>

**OBJECTIVES**

1. To understand the concept of family income, expenditure pattern, markets and marketing strategies.
2. To critically analyze the saving and investment avenues.
3. To enable students to handle their personal finances.
4. To know about the legal system and alternative mechanisms of consumer redressal.

## CONTENT

## PRACTICALS

- |  |   |
|--|---|
| 1. Comparative studies of labels on durables /non durables items/consumables/services.   | 1 |
| 2. Evaluation of advertisements in the print media- products, services and social ads  | 1 |
| 3. Designing informative and attractive advertisements in categories stated above  | 2 |
| 4. Brand comparisons of household items/consumer durables available in the market in terms of labels, packaging, advertising, price vs. quality, marketing strategies sales promotion etc. | 2 |
| 5. Survey of consumer problems   | 1 |
| 6. Analysis of services of financial institutions – banking / non-banking / private / others   | 2 |
| 7. Handling personal finances- evaluating investment options, Saral form for tax return  | 1 |
| 8. Profile of consumer organizations, consumer courts and other systems of redressal   | 1 |
| 9. Food adulteration tests   | 1 |

## DEVELOPMENT IN THE EARLY YEARS

### THEORY

<b>Paper No.</b>	<b>: HSHT - 331</b>
<b>Maximum Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive Period/ week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive Periods/ semester</b>

### OBJECTIVES

1. To understand growth and development during infancy and early childhood
2. To study the factors influencing development during infancy and early childhood years
3. To understand development in key areas- physical, motor, cognitive, language, social and emotional development.

## CONTENT

## PERIODS

**Unit I: Introduction to the early years (Ch 1, 5 Cole)**

6

- Significance of the early years
- Concept of developmental tasks and milestones

**UNIT II: Infancy: Physical-motor, Social- emotional development (Ch 4, 5, 10, 11 Berk)**  
12

- Physical growth and development- body size, skeletal growth, brain and nervous system, factors influencing and facilitating physical growth.
- Motor development, factors influencing and facilitating motor development
- Social and Emotional Development- family, socialization, attachment, infant emotions, influences on social- emotional development

**Unit III: Infancy: Cognitive and Language development (Ch 7, 10 Santrock) 10**

- Cognitive development- sensorimotor development, factors influencing cognitive development
- Language development- Language acquisition during infancy, factors influencing language development, facilitating language development

**Unit IV: Early Childhood: Physical and Social-emotional Development (Ch 4, 5, 9, 11 Bee)**  
10

- Physical growth and development- body size, skeletal growth, physiological changes, factors influencing and facilitating physical growth
- Motor development- gross and fine motor development, factors influencing and facilitating motor development
- Social and emotional development- relationship with family, peers, teachers
- Self concept, self esteem and gender identity
- Play and Early Childhood Care and Education

**Unit V: Early Childhood: Cognitive and Language Development (Ch 7, 10 Santrock) 10**

- Cognitive development: characteristics and accomplishments, factors influencing cognitive development
- Language development- characteristics and accomplishments, factors influencing and facilitating language

**RECOMMENDED READINGS**

1. Bee, H., (1995). The Developing Child. Harper Collins College Publisher.
2. Berk, L. (2006). Child development. New York: Allyn & Bacon.
3. Cole, M. and Cole, S. R. (1996). The Development of Children. W. H. Freeman and Company.
4. Santrock. (2006). Child Development. New York: Mc Graw- Hill.

**DEVELOPMENT IN THE EARLY YEARS**

**PRACTICAL**

<b>Paper No.</b>	<b>: HSHP-331</b>
<b>Maximum Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Teaching periods</b>	<b>: 4/Week</b>
<b>Practical Load</b>	<b>: 12 Practicals/ Semester (4 Periods each)</b>

<b>CONTENT</b>	<b>PRACTICALS</b>
1. Methods of studying children	<b>3</b>
• Interview	
• Questionnaire	
• Observation	
2. Plan and prepare activities to facilitate development during early years	<b>3</b>
3. Use sources such as literature and films to understand issues related to human development in Indian setting	<b>3</b>
4. Psychological tests (any 3)	<b>3</b>

## **FABRIC SCIENCE I**

### **THEORY**

<b>Paper No</b>	<b>: HSHT - 341</b>
<b>Maximum marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive Period/ week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive Periods/ semester</b>

### **OBJECTIVES**

1. To impart the knowledge of textile fibres in terms of their chemistry, production, properties, selection and care.
2. To familiarize the students with various production techniques and properties of yarns.

<b>CONTENT</b>	<b>PERIODS</b>
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**UNIT I: Production, chemistry and properties of natural fibres (Ch 13, 14, 15, 16, 17 Corbman / Ch 2, 5, 6 Sekhri / Ch 3, 4 Vilensky / Ch 4, 5 Kadolph and Langford)**

**12**

- Cotton, flax and jute
- Silk, wool and specialty hair fibers

**UNIT II: Production, chemistry and properties of manmade fibres (Ch 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28 Corbman / Ch 7, 8 Sekhri / Ch 3, 5 Vilensky)**

**15**

- Rayon, acetate, triacetate
- Polyamides (nylon 6 and nylon 6,6), polyester, acrylic and mod-acrylic, olefins (PE and PP) and elastomeric fibres

- Glass, metallic fibres, carbon fibres

**UNIT III : Yarn construction and properties (Ch 2 Corbman / Ch 9 Sekhri / Ch 10 Kadolph and Langford)**

12

- Yarn properties- yarn numbering, twist, crimp, strength
- Conventional mechanical spinning
  - Cotton system
  - Wool system
  - Worsted system

**UNIT IV: Types of yarns (Ch 3 Joseph)**

9

- Simple and Complex
- Textured yarns
  - Classification
  - Manufacture
  - Properties
- Blends- stages and purpose of blending
- Threads-types, properties, size
- Yarn defects

**RECOMMENDED READINGS**

- Corbman, P.B., (1985) Textiles- Fiber to Fabric (6<sup>th</sup> Edition), Gregg Division/McGraw Hill Book Co., US.
- Joseph, M.L., (1988) Essentials of Textiles (6<sup>th</sup> Edition), Holt, Rinehart and Winston Inc., Florida.
- Vilensky G., (1983) Textile Science, CBS Publishers and Distributors, Delhi.
- Kadolph SJ & Langford AL, Textiles, (2007), 10<sup>th</sup> edition, Pearson education, USA.
- Sekhri S., (2011) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi.

**FABRIC SCIENCE I**

**PRACTICAL**

<b>Paper No.</b>	<b>: HSHP - 341</b>
<b>Maximum Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Practical Periods</b>	<b>: 4/Week</b>
<b>Practical Load</b>	<b>: 12 Practicals/ Semester (4 periods each)</b>

**CONTENTS**

**PRACTICALS**

1. Fibre identification	2
2. Yarn properties- Identification, Count, Twist, Crimp	4
3. Yarn slippage	1
4. Estimation of binary fabrics - polyester/cotton, polyester/wool, polyester/silk	4
5. Identification of threads in terms of size, content, twist and use	1

## COMMUNICATION SYSTEMS

### THEORY

<b>Paper No</b>	<b>: HSH- 351</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

### OBJECTIVES

1. To develop understanding of various communication systems.
2. To learn about various types communication transactions.

### CONTENT

### PERIODS

#### **Unit I: Intrapersonal Communication (Ch 5 Barker and Lee / Ch 1 Devito) 10**

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

#### **Unit II: Interpersonal Communication (Ch 3, 6, 7 Barker and Lee / Ch 2, 3 Devito)**

12

- Listening, learning and persuasion
- Interpersonal communication: Dyadic, concept, stages in human relationship development.
- Small group communication: types of small groups, development of a small group, functions, group formation, constraints.

#### **Unit III: Organizational and Public Communication (Ch 8 Barker and Lee / Ch 4 Devito)**

12

- Organizational communication: concept, types of organizations, characteristics, functions and networks.
- Public communication: concept, steps in speech preparation, skill-verbal and non-verbal, speaker's apprehension.

#### **Unit IV: Intercultural Communication (Ch 1 Devito) 14**

- Relationship between culture and communication, concept of inter-cultural communication
- Models of intercultural communication
- Barriers in intercultural communication

## RECOMMENDED READINGS

- Devito, J. (1998) Human Communication. New York: Harper & Row.
- Barker, Larry Lee. (1990) Communication. Eaglewood Cliffs, New Jersey: Prentice Hall.

## COMMUNICATION SYSTEMS

### PRACTICAL

<b>Paper No</b>	<b>: HSHP- 351</b>
<b>Maximum Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Teaching Periods</b>	<b>: 4/week</b>
<b>Teaching Load</b>	<b>: 12 Practical / Semester (4 periods each)</b>

### OBJECTIVES

1. To understand the concept of intrapersonal communication.
2. To develop skills in preparation, presentation and evaluation of communication aids/media (traditional and modern).

### CONTENT

### PRACTICALS

- |  |   |
|--|---|
| • Exercise to know yourself                                      | 2 |
| • Analysing group dynamics in organizations- formal and informal | 4 |
| • Developing public speaking and presentation skills             | 2 |
| • Practising exercises in Intercultural transactions             | 4 |

## FUNDAMENTALS OF FOOD SCIENCE

### THEORY

<b>Paper No.</b>	<b>:</b>	<b>HSHT- 312</b>
<b>Maximum Marks</b>	<b>:</b>	<b>100</b>
<b>Credits</b>	<b>:</b>	<b>4</b>
<b>Teaching Periods</b>	<b>:</b>	<b>4 Theory + 1 Interactive Period/ week</b>
<b>Teaching Load</b>	<b>:</b>	<b>48 Theory Periods + 12 Interactive Periods / semester</b>

### OBJECTIVES

This course will enable the student to:

1. Understand the basic concepts of food science and its applications in processing of food.
2. Learn about the quality parameters of various foods.
3. Gain practical knowledge about food components and their role in cooking.

### CONTENT

### PERIODS

<b>Unit I: Introduction to food science (Ch 1 Srilakshmi)</b>	<b>2</b>
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- Definition, importance and applications
- Basic terminology used in food science

### **Unit II: Food Groups (Ch 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 Srilakshmi / Ch 29 Manay and Shadaksharaswamy) 44**

Study of various food groups with respect to their structure, classification, composition, nutritive contribution, properties, selection, storage, uses in cooking, changes during cooking, processing, effect of processing:

- Milk and milk products
- Eggs
- Flesh foods: (i) Meat , (ii) Poultry, (iii) Fish and seafood
- Cereals and cereal products
- Fruits and vegetables
- Legumes and pulses
- Fats and oils
- Sugars and its products
- Artificial Sweeteners
- Spices and herbs
- Beverages: Tea, coffee, cocoa
- Nuts and Oilseeds

### **Unit III: Food Adulteration (Ch 14 Srilakshmi)**

**2**

- Definition, type of adulteration and adulterants

### **RECOMMENDED READINGS**

- Manay S. and Shadaksharaswamy M (2008). Foods – Facts and Principles, 3<sup>rd</sup> Edition. Wiley Eastern Ltd.
- Srilakshmi (2007). Food Science, 4th Edition. New Age International Ltd.

## **FUNDAMENTALS OF FOOD SCIENCE**

### **PRACTICAL**

<b>Paper No.</b>	<b>: HSHP - 312</b>
<b>Maximum marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Teaching periods</b>	<b>: 4 / week</b>
<b>Teaching Load</b>	<b>: 12 Practicals/ semester (4 periods each)</b>

### **OBJECTIVES**

This course will enable the students to:

1. Understand the basic concepts of food science and its applications in processing of food.
2. Analyse quality parameters of various food.
3. Gain practical knowledge about food components and their role in cooking.

### **CONTENT**

### **PRACTICALS**

1. Food preparation, understanding the principles involved, nutritional quality and portion size

- Cereals and cereal products: Gluten quality & quantity and their role in baking (cake, biscuits, pastries)
- Gelatinization of starches: upma, halwa, pasta
- Fat as shortening: Poori, samosa, mathris
- Role of egg in cooking: Pudding, custards, mayonnaise, omelettes
- Milk and milk products: Effect of heat and pH, preparation of paneer, cream of tomato soup and apple kheer
- Beverages: Tea, coffee, shakes

2. Food Adulteration: Common tests to detect food adulterants. 1

## RECOMMENDED READINGS

- 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 & Distributers Pvt. Ltd.

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## SPACE PLANNING AND DESIGN THEORY

<b>Paper No.</b>	<b>: HSHT-322</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

## OBJECTIVES

1. To understand the fundamentals of house planning and space articulation.
2. To incorporate ergonomic considerations while space organization and designing.
3. To gather information regarding building construction technologies, materials and interior services.

## CONTENT

## PERIODS

**Unit I: Basic Concepts in Space Planning and Design (Ch 1 Kumar) 8**

- 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
- The Planning Process: steps in preparing a plan, synthesis of a house.
- The architects' lingo: symbols and common terms used in house planning

**Unit II: Design Specifics (Ch 32 Kumar / Ch 2 Adler / Ch 1.1 Gupta) 6**

- Basic norms and space standards in operation – NBC and MPD
- Ergonomic considerations in planning and designing spaces, space configuration: space standards for different activities with focus on home based workstations; provision for storage (built-in storage)
- Structuring spaces: indoor and outdoor; space articulation: zones in spatial planning.
- Analysis of furniture needs of different zones in a house/workstations

**Unit III: Building Construction Techniques And Technologies: Innovations For Sustainable Development (Ch 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 Kumar) 16**

- Purpose, Types and considerations
- Classification of building materials – Conventional/Non-Conventional
- Site selection – Factors
- Foundation – Purpose, types of foundations, reasons for failure of foundation
- Damp-proofing and water-proofing - defects, sources and treatment.
- Masonry- types
- Flooring
- Ceilings- types
- Lintels and Arches- definitions and purpose
- Doors and Windows- types
- Staircase - types
- Partitions and Panelling
- Cost economy in construction
- Concept and scope of pre-fabrication and modular housing

**Unit IV: Interior Environment and Services: Climatic Considerations (Ch 7, 11 Ching / Ch 16 Gupta) 12**

- HVAC
  - Heating of Interiors
  - Ventilation: terminology, efficient ventilation system, air exchange
  - Air-conditioning: Types, duct design and filters used, energy efficient air-conditioning system
- Lighting: terminology, day-lighting, types of lighting systems, energy efficient lighting systems, user specific lighting for specific areas, solar lighting systems
- 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
- Parking and outdoor planning

**Unit V: Special Housing Needs (Ch 35, 37 Adler) 6**

- Housing for special groups – old, disabled, families with infants, toddlers and young children
- Housing for specific areas: for hilly, desert and earthquake prone areas

**RECOMMENDED READINGS**

- Adler, David., 2004, Metric HandBook planning & Design, Architectural press.
- Ching, Francis D.K., 2001, Building Construction Illustrated, John Wiley & Sons.

- Gupta M.K., 2005, Nabhi's Practical Handbook on Building Construction, 4<sup>th</sup> Edition, A Nabhi Publication.
- Kumar, Sushil, 2008, Building Construction, Standard publisher.

## **SPACE PLANNING AND DESIGN**

### **PRACTICAL**

<b>Paper Number</b>	<b>: HSHP-322</b>
<b>Max Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Teaching Pds/Wk</b>	<b>: 4 /Week</b>
<b>Teaching Load/Sem</b>	<b>: 12 Practicals /Semester (4 Periods each)</b>

### **OBJECTIVES**

1. To familiarize the students with various aspects of building construction, building materials, light fittings and fixtures, etc.
2. To understand the procedures involved in the preparation of house plans, furnishing plans, drawings of service specifications.
3. To learn the techniques of preparing designs using computer-aided-design.

### **CONTENT**

### **PRACTICALS**

- |   |          |
|---|----------|
| • 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) | <b>1</b> |
| • Critical Evaluation of independent houses and apartments.   | <b>1</b> |
| • Identification of building materials and evaluation concerning their characteristics (favourable and unfavourable features), uses and applications, cost and environment friendliness.        | <b>1</b> |
| • Evaluation of buildings on energy efficiency parameters using green rating systems like GRIHA, LEED, ECBC.  | <b>1</b> |
| • Portfolio- Observe and prepare plan of residential units.   | <b>1</b> |
| • Observe and prepare house plans for different income groups up to 100sqm area (Computer aided /manual)  | <b>7</b> |

## **THEORIES OF HUMAN DEVELOPMENT**

### **THEORY**

<b>Paper No.</b>	<b>: HSHT- 332</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

### **OBJECTIVES**

1. To appreciate the role of theories in understanding Human Development.
2. To understand the relationship between theories, contexts and stages of life.

3. To become aware of application of theories.

## CONTENT

## PERIODS

### UNIT 1: Introduction to theories in Human Development (Ch 1 Rice / Ch 1 Santrock)

10

- 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 (Ch 13, 14 Berger / Ch 2 Rice)

16

- Evolutionary and Ethological/Biological: Darwin, Lorenz, Bowlby
- Ecological: Bronfenbrenner
- Behavioral: Pavlov, Skinner, Bandura

### UNIT III: Selected theories of human development (Ch 3, 4, 11 Berger / Ch 2 Santrock)

16

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

### UNIT IV: Theories in everyday life (Ch 8, 9 Allen)

- Eclectic theoretical orientation
- Ethnotheories

## RECOMMENDED READINGS

- Berger, J. M. (2010). Personality (8th ed.). Belmont, CA: Thomson/Wadsworth
- Allen, B. P. (2006). Personality theories: Development, growth, and diversity (5th Ed.). Needham Heights, MA: Allyn and Bacon
- Santrock, J. W. (2007). Lifespan Development (3rd ed.). New Delhi, Tata- McGrawHill
- Rice, P. (1995). Human Development: A Lifespan Approach. New Jersey, Prentice-Hall Inc.

## THEORIES OF HUMAN DEVELOPMENT

## PRACTICAL

<b>Paper No.</b>	<b>: HSHP- 332</b>
<b>Maximum marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Teaching periods</b>	<b>: 4/wk</b>
<b>Teaching load</b>	<b>: 12 Practical/ Semester (4 periods each)</b>

## CONTENT

## PRACTICALS

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

## APPAREL DESIGN AND CONSTRUCTION-I

### THEORY

<b>Paper No.</b>	<b>: HSHT- 342</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

### OBJECTIVES

1. To impart working knowledge of style reading, pattern development and garment construction.
2. To develop sensitivity towards selection of fabric and design for apparel.
3. To study the concept of fit.

## CONTENT

## PERIODS

<b>UNIT I: Introduction to sewing (Ch 1, 2, 3 Doongaji/Ch 19 Vatsala)</b>	<b>4</b>
<ul style="list-style-type: none"><li>• Tools and equipment for sewing: measuring, marking, cutting, pressing and other useful aids</li><li>• Sewing machine- various parts and their functions, basic operations, common sewing problems &amp; remedies, care of machine, safety measures to be taken while sewing</li></ul>	
<b>UNIT II: Seams and finishing of raw edges (Ch 3, 10 Stamper/Ch 21 Vatsala)</b>	<b>3</b>
<ul style="list-style-type: none"><li>• Types of seams- plain &amp; its finishing, flat, ridge, decorative</li><li>• Additional seam techniques: clipping, notching, grading, trimming, easing, under stitching, stay stitching, mitering, trimming a corner.</li><li>• Crossway strips- importance &amp; application</li><li>• Finishing of hem lines</li></ul>	
<b>UNIT III: Introduction to pattern making (Ch 3, 4, 7, 9 Armstrong)</b>	<b>2</b>
<ul style="list-style-type: none"><li>• Importance</li><li>• Methods- drafts, flat pattern, draping</li></ul>	

- Rules of pattern making

**UNIT IV: Components of garments and development of drafts (Ch 3, 4, 5, 6, 7, 8, 9, 10, 11 Stamper) 18**

- Fabric, seams, stitches, thread, shaping methods, dart equivalents, supporting material, sleeves, cuffs, necklines, collars, plackets, yokes, pockets, trims and accessories
- Body measurements- importance, body landmarks, precautions & procedure of taking measurements
- Drafting of a child's bodice, plain sleeve & A-line frock
- Adaptation of bodice & A-line frock to various designs of frocks- different necklines, yokes, flares, gathers & pleats, short bodice, elongated bodice
- Adaptation of child's sleeves to set-in (puff, leg-o-mutton), raglan & kimono (basic) sleeves
- Development of collars- peter pan- raised & flat, cape and sailors

**UNIT V: Design aspects (Ch 11 Stamper) 3**

- Structural and applied design
- Garment silhouette and lengths, edge treatment
- Disposal of fullness: gathers, pleats, tucks, darts and dart tucks

**UNIT VI: Preparation of fabric for cutting, layouts (Ch 2 Carr and Latham / Ch 23 Vatsala) 7**

- Fabric grain
- Preparatory steps-preshrinking, straightening & truing
- Layouts for patterns- general guidelines, basic layouts-lengthwise, partial lengthwise, crosswise, double fold, open, combination fold
- Pinning, marking, cutting
- Layout for special fabrics- unidirectional, bold & large prints, plaids, stripes & checks
- Fabric widths & calculation of material required

**UNIT VII: Selection of Apparel (Ch 2, 12 Stamper / Ch 1, 2, 3, 4, 5, 6, 7 Thompson) 11**

- Climate, occasion, occupation, fashion and figure
- Selection of suitable fabrics and apparel according to age (infants, toddlers, preschool and school going children, adolescents and elderly)
- Recognizing correct fit
- Factors affecting fit
- Fit problems and remedies

**RECOMMENDED READINGS**

- Amita, A. Stamper, Sue Humphries Stamp. (1986), Evaluating Apparel Quality, Fairchild publications, New York.
- Armstrong J., Pattern making for fashion design (4<sup>th</sup> edition), Pearson education
- Thompson & Rea (1947), The Clothing for Children, John Wiley and sons, Inc., New York.
- Vatsala R., Textbook of Textiles & Clothing, 2003, ICAR(Indisn Council of Agricultural Research).

**APPAREL DESIGN AND CONSTRUCTION –I  
PRACTICAL**

**Paper No.** : HSHP- 342  
**Maximum Marks** : 50  
**Credits** : 2  
**Practical Periods** : 4/Week  
**Practical Load** : 12 Practicals/ Semester (4 periods each)

## CONTENTS

## PRACTICALS

- |   |   |
|---|---|
| 1. Seams-   | 1 |
| • Plain seam & its finishing (pinking, over locking, turning & machining, edge machining)                             |   |
| • Flat seam (run & fell)  |   |
| • Ridge seam (French seam)  |   |
| • Decorative seam (lapped seam- with and without piping)  |   |
| 2. Centralized plackets – even hem, wrap & projection, continuous wrap and lapped zipper                              | 2 |
| 3. Finishing of raw edges- shaped facing on a slit, bias facing & binding on inward and outward curves                | 2 |
| 4. Disposal of fullness – gathers, pleats, tucks and darts  | 1 |
| 5. Construction of sleeves and collars on a child's bodice block  | 3 |
| • Plain and puff sleeve   |   |
| • Peter pan collar  |   |
| 6. Develop style variations in frocks- yokes, short bodice, elongated bodice, A- line (with flares, gathers & pleats) | 2 |
| 7. Construction of a frock from any of the drafts developed above.  | 1 |

## GENDER AND SOCIETY

### THEORY

**Paper No** : HSHT- 352  
**Maximum Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

### OBJECTIVES

1. To understand the different sectors of development, with special reference to women.
2. To develop insight into the issues and concerns of women.
3. To study strategies for empowerment of women.

### CONTENT

### PERIODS

**Unit I: Social construction of Gender (Ch 1, 2, 3, 4 Bhasin, Human Development Reports)** 14

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

**Unit II: Gender differentials (Ch 1, 2 Krishna / Ch 1, 2, 3, 4, 5, 6 Sohoni) 14**

- Approaches to understanding gender differentials
- Status issues and challenges in context to
  - violence against women
  - women and health
  - women and education
  - women's work and economic participation
  - women and leadership
  - women and media

**Unit III: Gender and Development (Ch 10, 11, 12, 13 Goel et al) 10**

- Concept of Gender Development – indicators of human and gender development
- Approaches to women's development
- Empowerment of women – concept and types
- National and International agencies involved in women's development

**Unit IV: Gender and Advocacy (Ch 1, 2, 3, 4, 5, 6, 7 Kingma et al) 10**

- Human rights and women
- Laws for protection of women's rights
- Media and gender mainstreaming

**RECOMMENDED READINGS**

- Bhasin, Kamla (2000). Understanding Gender. New Delhi. Kaali for Women.
- Devi, Uma (1994). Women Work, Development and Ecology. New Delhi, Har-Anand Publications.
- Goel, A, Kaur, A and Sultana, A (2006). Violence against women: Issues and Perspectives. New Delhi, Deep & Deep Publishers.
- Kapoor, Promila, (1993), Girl Child and Family Violence. New Delhi, Har –Anand Publications.
- Krishna, Sumi (2007). Women's Livelihood Rights: Recasting Citizenship for Development, New Delhi, Sage Publications.
- Sohoni, K Neerj, (1994), Status of Girls in Development Strategies, New Delhi, Har-Anand Publications.

**GENDER AND SOCIETY**

**PRACTICAL**

**Paper No : HSHP- 352**  
**Maximum Marks : 50**  
**Credits : 2**  
**Teaching Periods : 4/week**  
**Teaching Load : 12 Practical/ Semester (4 periods each)**

**OBJECTIVES**

1. To understand the status of women in society.

2. To sensitize students towards portrayal of women in media.
3. To provide insights into the functioning of various women's organizations.

## CONTENT

## PRACTICALS

- Gender based analysis of media with special reference to portrayal of women. 4
- Visits to various women's organizations. 2
- Analysis of gender based indices for understanding the status of women in society. 4
- Participation in campaigns for empowering women. 2

## FUNDAMENTALS OF PSYCHOLOGY: BEHAVIOURAL PROCESSES

## THEORY

<b>Paper no.</b>	<b>:</b>	<b>HSHT- 404</b>
<b>Max. Marks</b>	<b>:</b>	<b>100</b>
<b>Credits</b>	<b>:</b>	<b>4</b>
<b>Teaching Periods</b>	<b>:</b>	<b>4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>:</b>	<b>48 Theory Periods + 12 Interactive periods / semester</b>

## CONTENTS

## PERIODS

**Unit 1 (Ch 1, 2, 3, 4 Huffman/ Ch 1, 2 Morgan et al / Ch 1, 2, 5, 6 Hilgard et al)**

**12**

- The nature of Psychology and the work of Psychologist
- Various Perspectives in Psychology
- Biological foundations of Psychology
- Consciousness
- Perceptual processes

**Unit 2 (Ch 7, 8, 11, 12, 16 Hilgard et al / Ch 6, 7 Coleman)**

**20**

- Learning – Different approaches to learning
- Memory
- Motivational processes
- Emotions
- Stress and stress management
- Behavior disorders

**Unit 3 (Ch 16 Huffman / Ch 9, 10, 11 Coleman)**

**8**

- Interpersonal relationships
- Changing attitude towards sex and marriage
- The world of work

**Unit 4 (Ch 13 Huffman / Ch 3, 16 Coleman)**

**8**

- Personality- various theories of personality

- Patterns of development- healthy and faulty development of personalities
- Changing values in the changing society

## RECOMMENDED READINGS

- Coleman, C. James (1979), 4<sup>th</sup> Edition. Contemporary Psychology and Effective Behaviour. Scott, Foresman and Co.
- Hilgard R. Ernest, Atkinson C. Richard, Atkinson L. Rita (1975), Introduction to Psychology, 6<sup>th</sup> Edition, Oxford and IBH Publishing House.
- Huffman, Karen, Vernoy, Mark, Vernoy, Judith, (2002). Psychology in Action, 5<sup>th</sup> Edition, John Wiley and Sons.
- Morgan, T. Clifford, King A. Richard, Weisz R. John, Schopler John, (1986). Brief Introduction to Psychology. Tata Mcgraw-Hill, New Delhi.

## NUTRITION FOR CHILDREN AND ADOLESCENTS THEORY

<b>Paper No.</b>	:	<b>HSHT- 413</b>
<b>Maximum Marks</b>	:	<b>100</b>
<b>Credits</b>	:	<b>4</b>
<b>Teaching Period</b>	:	<b>4 Theory + 1 Interactive Period/ week</b>
<b>Teaching Load</b>	:	<b>48 Theory Periods + 12 Interactive Periods/ semester</b>

### OBJECTIVES

This course will enable the student to:

1. Comprehend the principles of planning nutritionally adequate meals.
2. Exercise food choices consonant with good health based on sound knowledge of principles of nutrition.
3. Acquire knowledge about the nutritional needs and concerns of children.
4. Acquaint with the fundamentals of nutrition for special conditions in children.

### CONTENT

### PERIODS

#### Unit I: Principles of Meal Planning (Ch 2, 3, 4 Khanna et al / Ch 1 Wardlaw et al)

4

- Overview of balanced diets, Dietary guidelines for Indians
- Food exchange lists
- Factors affecting food choices – life style practices, availability of foods, attitudes towards food, safety considerations, nutrition information and misinformation

#### Unit II: Nutrient Requirements (Ch 12 Bamji et al)

4

- Concept of minimum nutrient requirements and recommended dietary allowances, general methods of assessment of RDA for nutrients

#### Unit III: Infancy (Ch 7 Khanna et al / Ch 11 Stacy / Ch 16 Wardlaw et al)

10

- Prenatal influences on pregnancy outcome, effect of under nutrition on foetal growth process.
- Growth and development during infancy

- Nutritional requirements, feeding of the newborn and infant - breast feeding, complementary feeding
- Health problems related to infant nutrition like Colic, Diarrhoea, Milk allergy
- Preterm Infants – Nutritional requirements, feeding the preterm baby, feeding problems
- Problems of malnutrition

**Unit IV: Preschool children (Ch 8 Khanna et al / Ch 11 Stacy / Ch 16 Wardlaw et al)**

9

- Growth and Development
- Nutritional requirements
- Diet related behaviour of preschoolers, feeding problems
- Under nutrition-stunting and wasting, Problems of Overweight and obesity
- Iron deficiency anemia and Vitamin A deficiency

**Unit V: School Children (Ch 8 Khanna et al / Ch 11 Stacy/ Ch 16 Wardlaw et al)**

9

- Growth and Development
- Nutritional requirements
- Diet related behaviour of school children
- Childhood under nutrition and over nutrition
- Common nutritional concerns
- Physical fitness

**Unit VI: Adolescents (Ch 8 Khanna et al / Ch 11 Stacy / Ch 16 Wardlaw et al)**

8

- Growth and development
- Nutritional requirements
- Diet related behaviour of adolescents, body image
- Nutritional concerns of teenagers
- Eating disorders (anorexia nervosa, bulimia nervosa)

**Unit VII: Nutrition for special conditions (Ch 9 Wardlaw et al / Ch 16 Stacy)**

4

- Nutrition for physical fitness and sport
- Feeding problems in children with special needs

**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. New Delhi.
- Khanna K., Gupta S, Passi SJ, Seth R, Mahna R and Puri S (1997). Textbook of Nutrition and Dietetics. Phoenix Publishing House, New Delhi.
- Stacy Nix (2009) William's Basic Nutrition and Diet Therapy, 13<sup>th</sup> Edition. Elsevier Mosby.
- Wardlaw GM, Hampl JS, Disilvestro RA (2004). Perspectives in Nutrition, 6<sup>th</sup> edition, McGraw-Hill, Boston.

**NUTRITION FOR CHILDREN AND ADOLESCENTS  
PRACTICAL**

**Paper No. : HSHP- 413**  
**Maximum Marks : 50**

**Credits** : 2  
**Teaching Periods** : 4 / week  
**Teaching Load** : 12 Practicals/ semester (4 periods each)

## **OBJECTIVES**

The course will enable the student to:

1. Plan, prepare and evaluate nutritionally adequate diets for different age groups and socioeconomic categories of children.
2. Critically analyze nutrition labels on food products manufactured and advocated for children.

## **CONTENT**

## **PRACTICALS**

1. Planning, preparation and evaluation of adequate diets using Food Exchange Lists to suit different socioeconomic groups for - 7
  - Infants
  - Preschoolers
  - School children
  - Adolescents
2. Planning nutritious snacks/dishes for preschoolers, school children and adolescents for different income groups 2
3. Study of nutrition labeling on selected food products catering to children 1
4. Planning and preparation of some dishes for children with special needs 2

## **RECOMMENDED READINGS**

- ICMR (1989) Nutritive value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad, India.
  - 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.
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# **HUMAN RESOURCE MANAGEMENT**

## **THEORY**

**Paper No.** : HSH- 423

**Max. Marks : 100**  
**Credits : 4**  
**Teaching Periods : 4 Theory + 1 Interactive period / week**  
**Teaching Load : 48 Theory Periods + 12 Interactive periods / semester**

**OBJECTIVES**

- To understand the meaning and concept of Human resource management and development.
- To identify and understand functions of HRD
- To sensitize towards challenges of human resource managers

**CONTENTS**

**PERIODS**

<b>Unit I: Human Resources Management (Ch 1 Aswathappa and Subbarao)</b>	<b>6</b>
<ul style="list-style-type: none"> <li>• Concept, Scope and Significance</li> <li>• Organisation Theory and Human Resources</li> <li>• HRM and HRD</li> </ul>	
<b>Unit II: Functions of HRD (Ch 3, 7 Dessler)</b>	<b>18</b>
<ul style="list-style-type: none"> <li>• Manpower planning</li> <li>• Recruitment, selection and placement</li> <li>• Performance appraisal and development</li> <li>• Employee compensation</li> <li>• Training and Development</li> <li>• Motivation</li> </ul>	
<b>Unit III: Human Resources Audit (Ch 3 Srinivas)</b>	<b>9</b>
Its concept, significance and process	
<b>Unit IV: Legal Environment of HRM (Ch 22 Aswathappa / Ch 9 Dessler)</b>	<b>9</b>
<ul style="list-style-type: none"> <li>• Basics of labour legislations, collective bargaining, discipline and dismissals, employees’ health and safety</li> </ul>	
<b>Unit V: Strategic issues in HRM (Ch 1 Dessler / Ch Srinivas)</b>	<b>6</b>
<ul style="list-style-type: none"> <li>• Changing environment of HRM and its implications on today’s managers</li> </ul>	

**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.
- Srinivas, R. Kandrela, 2005, HRM in Practice with 300 models - Techniques and Tools, Prantice Hall of India Pvt. Ltd, New Delhi.
- Subbaroo, R., 2007, Personnel and HRM – Text and Cases, Himalaya Publishing House, New Delhi.

**HUMAN RESOURCE MANAGEMENT**

**PRACTICAL**

**Paper No.** : HSHP- 423  
**Max. Marks** : 50  
**Credits** : 2  
**Teaching Periods** : 4/Week  
**Teaching Load** : 12Practicals/ Semester

**OBJECTIVES**

- To identify and develop required skills for a successful human resource manager.
- To develop skills in human resource audit

<b>CONTENT</b>	<b>PRACTICALS</b>
• Concepts and related terminology of the functional areas of Human Resource Management Historical/Social Analysis/Critical Thinking through case study analysis and secondary research.	<b>1</b>
• Simulations/Presentations <ul style="list-style-type: none"> <li>- HR Planning – Job Analysis and Design (Levels).</li> <li>- Selection Tests – Intelligence Aptitude Personality</li> <li>- Interview techniques and skills</li> <li>- Performance Appraisals – Methods</li> </ul>	<b>5</b>
• HR auditing	<b>3</b>
• Computer applications in HRM	<b>3</b>

**CHILDHOOD IN INDIA**

**THEORY**

**Paper No.** : HSHT-433  
**Max. Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

**OBJECTIVES**

1. To study the contexts of childhood in India
2. To explore depictions of childhood in Indian society
3. To be aware of the diversity in the lives of children, families and communities.

<b>CONTENT</b>	<b>PERIODS</b>
<b>Unit I: Introduction to childhood in India (Ch 1, 2 Sharma / Ch 2 Krishnan)</b>	<b>8</b>
<ul style="list-style-type: none"> <li>• Children in India: An overview</li> <li>• Social construction of childhood</li> <li>• Folk theories about childhood and family</li> <li>• Childhood in mythology, stories and films</li> </ul>	

**Unit II: Multiple contexts of childhood in India (Pg 88 – 115 Sharma / Pg 1 – 41 Behera)**

10

- Ethnic, religious, regional, social, economic and ecological variations
- Childhood in families
- Growing up without the family
- Children in schools
- Children in extra-familial settings

**Unit III: Psycho-social dimensions of childhood (Pg 249 – 260 Behra)**

16

- Growing up in a tribal family
- Childhood in selected family occupations: artists, farmers, weavers
- Growing up in a rural setting
- Children on the streets
- Belonging to a minority community
- Being a girl in India
- Adoption and childhood

**Unit IV: Contemporary issues of childhood in India (Pg 128 – 139 Krishnan)** 14

- Language, religion and culture
- Ability, disability
- Poverty
- Caste and childhood
- Children in urban India

**RECOMMENDED READINGS**

- Behera, D. K (Ed.) (2007) *Childhoods 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 Educational Research and Training.
- Sharma, D. (2003). *Infancy and childhood in India*. In, D. Sharma (Ed.), *Childhood, family and sociocultural change in India (13 - 47)*. New Delhi: Oxford.  
Selected short stories about childhood in regional contexts

**CHILDHOOD IN INDIA**

**PRACTICAL**

**Paper No. : HSHP-433**  
**Maximum Marks : 50**  
**Credits : 2**  
**Teaching Periods : 4/ week**  
**Teaching Load : 12 Practicals/Semester**

**CONTENT**

**PRACTICALS**

- |   |   |
|---|---|
| 1. Personal social experiences of childhood in families               | 2 |
| 2. Beliefs and practices related to children in different communities | 2 |
| 3. Children's experiences of ethnicity/class/caste/language           | 3 |

- |   |   |
|---|---|
| 4. Stories, folk songs, toys and games from diverse ethnic groups | 2 |
| 5. Depiction of childhood in media.                               | 3 |

## FASHION STUDIES

### THEORY

**Paper No.** : HSHT- 443  
**Maximum Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4/Week  
**Teaching Load** : 48 Periods/ Semester

### OBJECTIVES

1. To understand the basics of fashion design.
2. To provide knowledge of the Indian and global fashion industry.

### CONTENT

### PERIODS

#### UNIT I: Fashion development (Ch 1 Fringes)

6

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

#### UNIT II: Adoption of fashion (Ch 3 Fringes)

2

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

#### UNIT III: Fashion forecasting (Ch 4 Fringes)

6

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

#### UNIT IV: Designing a successful garment (Ch 2, 3, 4, 5, 6 Tate and Edward) 14

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

#### UNIT V: Fashion centers and designers of the world (Ch 8 Fringes)

8

- France, Italy, UK, Japan, NY
- India, Spain, Germany, Canada

**UNIT VI: Fashion design and retail (Ch 8, 9 Tate / Ch 13 Fringes) 11**

- Children’s wear- selling seasons, fibers, trimmings, organizing, size categories
- Men’s wear- current market trends, designing, merchandising categories
- Types of retail organizations-
  - specialty stores
  - department stores
  - mass merchants
  - boutiques and chain
- Non store retailing: mail-order, e-tailing

**UNIT VII: Computer applications in fashion industry (Ch 8 Carr and Latham) 1**

**RECOMMENDED READINGS**

- Carr H., Latham B. (1994), The Technology of Clothing Manufacture, 2<sup>nd</sup> edition, Blackwell Sc.
- Fringes G. S. (1994), Fashion from Concept to Consumer, 6<sup>th</sup> edition, Prentice Hall, New Jersey.
- Tate, S.L. and Edwards, M.S.(1982) The Complete Book of Fashion Design, New York, Harper & Row Publication.

**FASHION STUDIES**

**PRACTICAL**

**Paper No. : HSHP- 443**  
**Maximum Marks : 50**  
**Credits : 2**  
**Teaching Periods : 4/Week**  
**Teaching Load : 12 Practicals/ Semester (4 periods each)**

**CONTENTS**

**PRACTICALS**

1. Technical drawing of fashion details: skirts, bodices, sleeves, necklines, collars, accessories. 2
2. Fashion forecast study and development of Mood boards & theme boards 4
3. Analysis of fabric and trim sourced from various fashion retail stores. 1
4. Development of a design collection and documentation on designer worksheet and cost sheets. 3
5. Computer application on design based software like corel and adobe 2

# MASS COMMUNICATION

## THEORY

**Paper No** : HSH- 453  
**Max. Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

### OBJECTIVES

1. To understand the nature and process of mass communication.
2. To familiarize the students with the process and techniques of media planning.
3. To provide an insight into the range and scope of different mass media.

### CONTENT

### PERIODS

<b>Unit I: Mass Communication (Ch 2, 3, 4, 7 McQuail)</b>	<b>14</b>
<ul style="list-style-type: none"><li>• Concept and significance of mass communication</li><li>• Functions of mass communication</li><li>• Models and theories of mass communication</li><li>• Characteristics of mass audience</li></ul>	
<b>Unit II: Mass Media (Ch 2, 3, 4, 5, 10 Vilanilam / Ch 1, 2, 3 Kumar)</b>	<b>14</b>
<ul style="list-style-type: none"><li>• Characteristics, history, classification, reach, access, coverage and role in society of the following mass media:<ul style="list-style-type: none"><li>-Print media</li><li>-Electronic media</li><li>-Computer based media</li></ul></li><li>• Traditional and Modern media</li></ul>	
<b>Unit III: Media Planning (Ch 2 Pannu and Tomer)</b>	<b>10</b>
<ul style="list-style-type: none"><li>• Audience segmentation and media analysis</li><li>• Media Literacy- meaning, concept, interpreting media messages</li><li>• Media Planning- Concepts and techniques, audience analysis</li></ul>	
<b>Unit III: Media Industry (Ch 4, 5, 6 Kumar)</b>	<b>10</b>
<ul style="list-style-type: none"><li>• Structure and functions</li><li>• Role, status and impact</li><li>• Portrayal of contemporary issues in media</li><li>• Role of mass media in society</li></ul>	

### RECOMMENDED READINGS

- Kumar, Keval J. (2000). Mass communication in India. New Delhi: Jaico Publishing House.
- Mc Quail, Denis. (2000). Mass Communication Theory. London, Thousand Oaks, New Delhi: Sage Publications.
- Pannu, Parveen and Tomar Yuki Azaad (2010) 'ICT4D Using Information Communication Technologies for Development' IK International Publishing House, New Delhi.

- Vilanilam, J. V. (2005). Mass communication in India: a sociological perspective. New Delhi: Sage Publications.

## **MASS COMMUNICATION**

### **PRACTICAL**

**Paper No** : **HSHP-453**  
**Maximum Marks** : **50**  
**Credits** : **2**  
**Teaching Periods** : **4 / week**  
**Teaching Load** : **12 Practicals/ Semester (4 periods each)**

### **OBJECTIVES**

1. To develop an understanding of the impact of media on society.
2. To develop skills for content development for mass media.

### **CONTENT**

- Conduction Media survey
- Content analysis of mass media
- Conceptualization and development of a mass media products

### **PRACTICALS**

4  
4  
4

## **PUBLIC NUTRITION**

### **THEORY**

**Paper No.** : **HSHT- 414**  
**Maximum Marks** : **100**  
**Credits** : **4**  
**Teaching Periods** : **4 Theory + 1 Interactive Period/ week**  
**Teaching Load** : **48 Theory Periods + 12 Interactive Periods/ semester**

### **OBJECTIVES**

This course will enable the student to:

1. Understand the multi-faceted nature of malnutrition problem.
2. Assess the malnutrition problem at the community level.
3. Be aware of the various aspects of nutrition education and promotion.
4. Be familiar with the policy and intervention programmes operating in India to overcome malnutrition.

### **CONTENT**

### **PERIODS**

<b>Unit I: Concept and scope of public nutrition Ch 1.1 Wadhwa and Sharma)</b>	<b>2</b>
<b>Unit II: Food Behaviour (Ch 6.1 Wadhwa and Sharma)</b>	<b>5</b>
<ul style="list-style-type: none"> <li>• Food related behaviour- definition and concept</li> <li>• Factors affecting food habits/ behaviour</li> <li>• Relation of knowledge, attitude, beliefs and practices in food behaviour</li> </ul>	

**Unit III: Nutritional problems and their implications (Chapter 18, 19, 20, 21, 23, 24, 30 Bamji et al)**

**18**

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

**Unit IV: Assessment of nutritional status (Ch 5.1 Wadhwa and Sharma) 10**

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

**Unit V: Nutrition Education (Ch 6.2 Wadhwa and Sharma / Ch 20 Park) 5**

- Objectives, principles and scope of nutrition and health education and promotion
- Behaviour change communication – concept, objectives and approaches

**Unit VI: Nutrition: Policy and programmes in India (Ch 33 Bamji et al / Ch 7.2 Wadhwa and Sharma) 8**

- National Nutrition Policy
- Objectives, target groups and intervention strategies of-
  - a) ICDS
  - b) Mid Day Meal Programme (MDMP)
  - c) National programmes for prevention of Anaemia, Vitamin A deficiency, Iodine Deficiency Disorders

**RECOMMENDED READINGS**

- 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.
- Park K (2009). Park's Textbook of Prevention and Social Medicine, 20<sup>th</sup> Edition. M/s Banarasidas Bhanot Publishers, Jabalpur, India.
- Wadhwa A and Sharma S (2003). Nutrition in the Community-A Textbook. Elite Publishing House Pvt. Ltd. New Delhi.

**PUBLIC NUTRITION**

**PRACTICAL**

<b>Paper No.</b>	<b>:</b>	<b>HSHP-414</b>
<b>Maximum Marks</b>	<b>:</b>	<b>50</b>
<b>Credits</b>	<b>:</b>	<b>2</b>
<b>Teaching Periods</b>	<b>:</b>	<b>4 / week</b>
<b>Teaching Load</b>	<b>:</b>	<b>12 Practicals/ semester (4 periods each)</b>

**OBJECTIVES**

This course will enable the student to learn:

1. Basic principles for planning, preparing and demonstrating low cost nutritious dishes for vulnerable groups.
2. Simple techniques of assessment of nutritional status.
3. Planning of a nutrition education activity.
4. Observation of an ongoing nutrition intervention programme.

## CONTENT

## PRACTICALS

- |   |   |
|---|---|
| 1. Planning and demonstration of low cost nutritious recipes for infants, preschoolers, pregnant/nursing mothers for nutrition education communication activities among underprivileged sections of the population.   | 3 |
| 2. Assessment of nutritional status.  | 4 |
| <ul style="list-style-type: none"> <li>• Anthropometric measurements – weight, height, MUAC</li> <li>• Plotting and interpretation of growth charts for children below 5 years.</li> <li>• Identification of clinical signs of common nutritional disorders.</li> <li>• Dietary assessment – 24 hour recall.</li> </ul> |   |
| 3. Planning and conducting a nutrition promotion activity.  | 4 |
| 4. Visit to an ongoing nutrition and health promotion programme.  | 1 |

## RECOMMENDED READINGS

- ICMR (1998) Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- ICMR (1989) Nutritive Value of Indian Foods. 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.

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## RESOURCES AND SUSTAINABLE DEVELOPMENT THEORY

<b>Paper No.</b>	<b>:</b>	<b>HSHT- 424</b>
<b>Max. Marks</b>	<b>:</b>	<b>100</b>
<b>Credits</b>	<b>:</b>	<b>4</b>
<b>Teaching Periods</b>	<b>:</b>	<b>4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>:</b>	<b>48 Theory Periods + 12 Interactive periods / semester</b>

### OBJECTIVES

1. To build an inter-disciplinary perspective on understanding sustainable development concerns and challenges
2. To familiarize students with current debates and perspectives in analyzing constraints and opportunities for sustainable development
3. To provide students with a general introduction to the basic core competencies and practical skills required of a “generalist” development practitioner

## CONTENT

## PERIODS

**Unit I: Understanding Sustainable Development (Ch 1, 5, 6 Sunder / Ch 1 Somayaji)**

14

- Introduction, objectives, Definitions & Principles of Sustainable Development
- Sustainable development and globalization-Millennium Development Goals
- International development Agreements
- Sustainable management of key resources-Land, Forests, Water, Air, Energy, Waste

**Unit II: Challenges to Sustainable Development (UN Millennium Project / Ch 3 Somayaji and Somayaji) 10**

- Growth vs. development
- Population explosion, Urbanization, industrialization
- Population and Food Security
- Consumption and environment, ecological footprints, sustainable consumption

**Unit III: Responses to Sustainable Development-I (World Bank, ARD) 12**

- Sustainable agricultural practices
- Sustainable use of land and forest resources, sustaining Himalayan ecosystem
- Renewable sources of energy- solar, wind, geothermal

**Unit IV: Responses to Sustainable Development-II (UN Millennium Project) 12**

- Sustainability in use of water with focus on water harvesting and water shed management
- Energy conservation and efficiency
- Sustainable habitats with focus on green buildings
- Sustainable business practices

**RECOMMENDED READINGS**

- Ganesha Somayaji and Sakarama Somayaji ,2009, Environmental concerns and sustainable development: some perspectives from India, TERI Publication
- I. Sundar ,2006, Environment And Sustainable Development, Aph Publishing Corporation
- UN Millennium Project, 2005. Innovation: Applying Knowledge in Development. Science, Technology and Innovation Task Force Report.
- World Bank, 2006, Enhancing Agricultural Innovation: How to go beyond the strengthening of research systems, World Bank: Agriculture and Rural Development

**RESOURCES AND SUSTAINABLE DEVELOPMENT**

**PRACTICAL**

**Paper No. : HSHP- 424**  
**Maximum Marks : 50**  
**Credits : 2**  
**Teaching Periods : 4/Week**  
**Teaching Load : 12 Practicals / Semester (4 Periods each)**

**OBJECTIVES**

1. To provide students with core competencies and practical skills required of a “generalist” development practitioner

2. To build an inter-disciplinary perspective on understanding sustainable development concerns and challenges
3. To familiarize students with current debates and perspectives in analyzing constraints and opportunities for sustainable development

## CONTENT

## PRACTICALS

- |  |                |
|--|----------------|
| 1. Portfolios on Status, trends and sustainable management of Key resources-Land, Water, Air, Energy, Waste. Case studies on sustainable use of above resources in both urban and rural areas.   | <b>1</b>       |
| 2. Secondary data collection on -Growth vs development, the urban environment, Population, consumption and environment, ecological footprints.   | <b>1<br/>5</b> |
| 3. Development of material for educating different sections of community towards sustainable consumption practices.  | <b>5</b>       |
| 4. Understanding Challenges to Sustainable Development- sector specific data to be collected and reported on areas like- <ul style="list-style-type: none"> <li>- Urbanisation, industrialisation</li> <li>- Agriculture, Population &amp; Food Security</li> <li>- Education</li> <li>- Natural Resources (Forests, Energy, Water)</li> </ul> Focus on developing case profiles of success stories in each sector. Government policy and programs which have helped overcome the challenges in the specific |                |

## DEVELOPMENT IN MIDDLE CHILDHOOD AND ADOLESCENCE

### THEORY

**Paper No.** : HSHT- 434  
**Max. Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

### OBJECTIVES

1. To understand development in middle childhood and adolescence
2. To study significant changes during middle childhood to adolescence
3. To gain knowledge of issues concerning middle childhood and adolescence

## CONTENT

## PERIODS

- |   |          |
|---|----------|
| <b>Unit I: Introduction to middle childhood (Ch 1, 11 Berk / Ch 5 Santrock)</b>             | <b>4</b> |
| <ul style="list-style-type: none"> <li>• Developmental tasks of middle childhood</li> </ul> |          |

- Physical development- changes in body size, secular trends, nutrition and health, physical fitness
- Motor development- factors influencing

**Unit II: Cognition and language (Ch 6, 9, 13 Santrock / Ch 12 Berk) 8**

- Cognitive development- contemporary theoretical perspectives on cognitive development, factors influencing cognitive development
- Intelligence and creativity, influences on intelligence and creativity
- Development of language in middle childhood, bilingualism/multilingualism, influences on language development
- Moral development- Perspectives on morality, influences on moral reasoning and behaviour

**Unit III: Social and Emotional Development (Ch 13 Berk / Ch 10, 11 Santrock) 8**

- Changes in emotional development, understanding emotions and emotional self regulation
- Changes in self concept, self understanding, development of self esteem, inferiority vs. superiority
- Relationship with family, peers, teachers
- Influence of school and media

**Unit IV: Introduction to Adolescence and Physical Development (Ch 14 Berk / Ch 1, 2, 3, 4 Rice / Ch 3 Sharma) 8**

- Definitions of adolescence and theoretical perspectives
- Physical and physiological changes
- Puberty and sexual maturity
- Nutrition, health and psychological well-being

**UNIT V: Cognitive, Language and Moral Development (Ch 4 Sharma / Ch 6, 12 Rice) 10**

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

**UNIT VI: Social and Emotional Development (Ch 8, 10, 11, 12 Rice/ Ch 5 Sharma) 10**

- Developmental tasks of adolescence
- Self and identity at adolescence- contemporary perspectives
- Family relationships- parents, siblings, grandparents and significant others
- Peer relationships
- Interface with media, politics and society

**RECOMMENDED READINGS**

- Berk, L. E. (2007). Development through the Life Span (4<sup>th</sup>ed.). Allyn & Bacon: Boston
- Rice, F. P., (1999). The Adolescent: Development, Relationships & Culture (9<sup>th</sup>ed.). Allyn and Bacon: Boston

- Santrock, J. W., (2006).Life Span Development (10<sup>th</sup>ed.). Mc Graw Hill
- Sharma N. (1999). Understanding Adolescence. New Delhi: NBT.

## **DEVELOPMENT IN MIDDLE CHILDHOOD AND ADOLESCENCE**

### **PRACTICAL**

**Paper No.** : HSHP- 434  
**Maximum Marks** : 50  
**Credits** : 2  
**Teaching periods** : 4/Week  
**Practical Load** : 12 Practicals/ semester (4 periods each)

### **CONTENT**

### **PRACTICALS**

1. Studying various issues related to middle childhood and adolescence using multiple methods	6
2. Case profile of middle school child or adolescent in different socio-cultural contexts	2
3. Analysis of images of children and adolescents in media	1
4. Psychological tests	3

## **APPAREL DESIGN AND CONSTRUCTION II**

### **THEORY**

**Paper No.** : HSHT- 444  
**Max. Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

### **OBJECTIVES**

1. To impart knowledge about the style reading & paper patterns.
2. To help develop skills in pattern making and construction.
3. To understand the use of components of a garment.
4. To sensitize towards the clothing for people with special needs.

## CONTENT

## PERIODS

### **UNIT I : Development of drafts (Ch 2, 3, 4 Armstrong / Ch 7 Tate)**

13

- Adult basic blocks: bodice, sleeve & skirt
- 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 II: Pattern development & sizing (Part 2 Armstrong)**

4

- Importance of patterns & pattern information
- Rules of pattern making
- Principles of pattern making
- Numbered sizing & lettered sizing ( children’s wear, women’s wear, men’s wear)

### **UNIT III: Findings & trims (Part 4 Armstrong / Ch 7 Tate/ Ch 5 Carr and Latham)**

6

- Difference between findings & trims
- Performance- aesthetic and functional
- Physical features
- Labels, threads, narrow trims (ribbons, braids, lace and other fabric trims), appliqués, closures, underline fabric, other shaping and supporting devices-elastic, belts, sleeve heads, seam stays, collar stays, bra cups, boning, horse hair braids, weights and dress shields

### **UNIT IV: Selection of garments for special needs (Ch 18, 19 Armstrong)**

3

- Maternity
- Lactation
- Person’s with disability (PWD)

### **UNIT V: Industrial machines (Ch 2, 3, 4, 6, 7 Carr and Latham)**

9

- Cutting- round knife, straight, band knife, die
- Marking- drills and notchers
- Fusing- static and rotary
- Sewing-chain stitch and lock stitch principle, over lock machine (sergers)
- Work aids- pocket creaser, collar turners
- Embroidery
- Finishing- pressing and stain removal
- Use of computers in apparel industry

### **UNIT VI: Garment assembly in the industry (Ch 1, 2, 3, 4, 5, 6, 7 Carr and Latham)**

6

- Parts
- Pieces
- Panels

- Products and finishing
- UNIT VII: Fit (Ch 6, 7, 8 Leitchy) 4**
- Learning to fit a garment- fitting area, fitting guidelines, fitting procedure, fit problems and remedies
  - Fitting special markets-children, pregnant women, senior citizens, heavy people, people with physical disabilities

- UNIT VIII: Use of computers in apparel industry (Ch 8 Carr and Latham) 3**
- Software for apparel design

### **RECOMMENDED READINGS**

- Armstrong, H.J. (2009), Pattern Making for Fashion Design, Harper Collins Publishers, INC, New York.
- Carr H. & Latham B. (1994), The Technology of Clothing Manufacture, 2<sup>nd</sup> edition, Blackwell SC.
- Liechty, E.G., D.N. Potterberg, and J.A. Rasband (2010), Fitting and Pattern Alteration; A Mutimethod approach, Fairchild Publication, New York.
- Tate S.L., Edwards M.S., 1982, The Complete Book of Fashion Design, Harper and Row Publication, New York.

## **APPAREL DESIGN AND CONSTRUCTION II**

### **PRACTICAL**

<b>Paper No.</b>	<b>: HSHP- 444</b>
<b>Maximum Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Teaching Periods</b>	<b>: 4/Week</b>
<b>Teaching Load</b>	<b>: 12 Practicals/ Semester (4 periods each)</b>

### **CONTENT**

### **PRACTICALS**

1. Development of adult bodice, sleeve and skirt block	<b>1</b>
2. Development of collars	<b>2</b>
• Stand collars-Stand and fall and Mandarin	
• Grown on collar- Shawl (Flat and raised)	
3. Applied and in- seam pockets	<b>1</b>
4. Development of variations in sleeve	<b>3</b>
• Set in sleeves- leg-o-mutton, shirt maker, pet al	
• Sleeve and bodice combination- saddler	
5. Design variations in bodice through dart manipulation	<b>2</b>
6. Design variations in skirt on half scale templates	<b>1</b>
7. Stitching of a blouse for self	<b>2</b>

# EXTENSION PROGRAMME DESIGN AND MANAGEMENT THEORY

<b>Paper No</b>	<b>: HSHT- 454</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

## OBJECTIVES

1. To understand the concept and scope of extension in national development.
2. To develop an understanding of principles and process of program design and management.
3. To appreciate the relevance of participatory approaches in extension programs.

## CONTENT

## PERIODS

<b>Unit I: Extension (Ch 3, 4 Dahama and Bhatnagar / Ch 3 Singh)</b>	<b>14</b>
<ul style="list-style-type: none"><li>• Historical perspectives of extension</li><li>• Philosophical foundations of extension</li><li>• Role of extension in development</li><li>• Objectives of Home Science extension</li><li>• Millennium Development Goals (MDG and extension)</li></ul>	
<b>Unit II: Programme Planning and Management (Ch 37, 38 Dahama and Bhatnagar / Ch 2, 3 Mikkelsen / Ch 1, 2, 3 Mukherje)</b>	<b>14</b>
<ul style="list-style-type: none"><li>• Development programs at regional and national level</li><li>• Program management – models and approaches</li><li>• People’s Participation in Programme Management – Levels and types of participation</li><li>• Participatory Learning and Action (PLA) – techniques and applications</li><li>• Programme planning – situation analysis, need assessment and programme design</li><li>• Programme implementation – organizational structures, approaches and strategies</li><li>• Programme monitoring and programme evaluation</li></ul>	
<b>Unit III: Extension Methods and Techniques (Ch 37, 38 Dahama and Bhatnagar / Ch 3 Kumar and Hansra)</b>	<b>10</b>
<ul style="list-style-type: none"><li>• Types, scope and relevance of extension approaches</li><li>• Innovative approaches – national and international perspectives</li><li>• Role of ICTs in extension</li></ul>	
<b>Unit IV: Mobilizing Human Resource in Extension (Ch 4 Kumar and Hansra)</b>	<b>10</b>
<ul style="list-style-type: none"><li>• Diffusion and Adoption of innovations – adopter’s categories, role of change agents in adoption and implications of innovation</li><li>• Leadership Development –concept, types, roles, functions, traits, mobilization of local leadership</li><li>• Promotion of group action through community organizations and community institutions</li><li>• Organizations engaged in development</li></ul>	

## RECOMMENDED READINGS

- Dahama, O.P. and Bhatnagar, O.P., (2003), Education and Communication for Development, New Delhi, Oxford and IBH Publishing Co. Pvt. Ltd.
- Kumar & Hansra, (1997), Extension Education, Concept Publishers, New Delhi
- Mikkelsen, Britha, (2002), Methods For Development Work and Research, New Delhi, Sage Publications
- Mukherjee, Neela, (1993), Participatory Rural Appraisal: Methodology and Applications, New Delhi, Concept Publishing Co.
- Singh A K, (2003) .Agriculture Extension: Impact and Assessment. Agrobios, Jodhpur, India

## EXTENSION PROGRAMME DESIGN AND MANAGEMENT PRACTICAL

**Paper No** : HSHP- 454  
**Maximum Marks** : 50  
**Credits** : 2  
**Teaching Periods** : 4/week  
**Teaching Load** : 12 Practicals/ Semester (4 periods each)

### OBJECTIVES

- To analyze the issues and concerns of a specific community groups.
- To develop skills in the use of participatory approaches in programme management.
- To evaluate different approaches used in development interventions.

### CONTENT

### PRACTICALS

- Develop skills in conducting PLA techniques for extension programme management 4
- Evaluate strategies being used by development agencies for implementation of development programmes 4
- Develop skills in planning and using small group methods in extension 4

## ECONOMICS

### THEORY

**Paper No.** : HSHT- 505  
**Max. Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

### OBJECTIVES

1. To make students understand basic concepts of economics and their utilization in day to day life.
2. To familiarized students with major economic problems of India and their implications.
3. To enable students to know various policy measures adopted in the country.

# CONTENTS

## PERIODS

- Unit I: Introduction (Ch 2, 3, 6 Ahuja / Ch 1, 2, 3, 4, 5, Dhingra and Garg) 6**
- Definition, Scope and Importance of studying Economics.
  - Central problems of an economy
  - Types of economic system
- Unit II: Consumption and production (Ch 7, 8, 9, 10, 13, 17, 25, 26, 27 Ahuja) 16**
- Wants – Classification and Characteristics.
  - Utility – Law of Diminishing Marginal Utility, Law of Equi-Marginal Utility and Indifference Curve Analysis.
  - 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 – Peculiarities of Land and Types of Cultivation
  - Labour – Types, Labour Market: Supply of Labour – Theories of Population
  - Demand for Labour – Efficiency and Mobility
  - Capital Formation
  - Organization – Role of Entrepreneur and types of Organization
  - Laws of returns
  - National Income estimates
- Unit III: Exchange (Ch 1, 2, 5, 12, 13, 14, 21, 22, 23 Mithani) 14**
- Market : types & Price determination in various market conditions
  - Money: types & functions
  - Value of money – quantity theory – cash transaction approach and cash balance approach
  - Measurement of the value of money-Index number
  - Inflation
  - Bank – types & functions
  - Revenue – sources
  - Taxation
  - International trade and balance of payment.
- Unit IV: Development & Planning (Ch 1, 2, 17, 29, 37, 43, 55, 61 Mishra and Puri) 12**
- Growth and development – major indicators
  - Indian Economy – status : Population, employment, price, food , environment and poverty
  - Various developmental programmes of the Government of India
  - Sustainability
  - Planning: models, objectives and achievement
  - Globalization and Privatization

## RECOMMENDED READINGS

- Ahuja H.L. 2010, Modern Micro Economics Sultan Chand & Company.
- Dhingra IC and Garg VK, 2010, Introductory Economic Theory. Sultan Chand & Sons
- Mishra and Puri, 28th revised Edition 2010, Indian Economy. Himalaya Publishing House
- Mithani D.M., 2010 New Edition, Macro-Economics. Himalaya Publishing House

# NUTRITIONAL BIOCHEMISTRY-I

## THEORY

<b>Paper No.</b>	:	<b>HSHT- 515</b>
<b>Maximum Marks</b>	:	<b>100</b>
<b>Credits</b>	:	<b>4</b>
<b>Teaching Periods</b>	:	<b>4 Theory + 1 Interactive Period/ week</b>
<b>Teaching Load</b>	:	<b>48 Theory Periods + 12 Interactive Periods/ semester</b>

### OBJECTIVES

This course will enable the students to:

1. Develop an understanding of the principles of biochemistry.
2. Obtain an insight into chemistry of major nutrients and physiologically important biomolecules.

### CONTENT

### PERIODS

<b>Unit I: Introduction to Biochemistry (Ch 1 Lehninger et al)</b>	<b>1</b>
<ul style="list-style-type: none"> <li>• Definition, objectives, scope and inter-relationship between biochemistry and other biological sciences</li> <li>• Water and buffers</li> </ul>	
<b>Unit II: Carbohydrates (Ch 7 Lehninger et al)</b>	<b>10</b>
Definitions, classification, structure and general properties of: <ul style="list-style-type: none"> <li>• Monosaccharides-glucose, fructose, galactose, mannose, ribose, xylulose</li> <li>• Disaccharides – maltose, lactose, sucrose</li> <li>• Polysaccharides – Homoglycan, dextrin, starch, glycogen Heteroglycan, chondroitin sulphate Non digestible carbohydrates</li> <li>• Isomerism in carbohydrates</li> </ul>	
<b>Unit III: Lipids (Ch 10 Lehninger et al)</b>	<b>11</b>
<ul style="list-style-type: none"> <li>• Definitions and classification of lipids: storage and structural lipids</li> <li>• Types and properties of fatty acids</li> <li>• Significance of acid value, iodine value and saponification value</li> <li>• Lipoproteins</li> </ul>	
<b>Unit IV: Proteins (Ch 3, 4, 5 Lehninger et al)</b>	<b>8</b>
<ul style="list-style-type: none"> <li>• Definition, classification, structure, and general properties of amino acids</li> <li>• Essential and non-essential amino acids</li> <li>• Definition, classification, elementary knowledge of structure of proteins</li> <li>• Introduction to enzymes, Classification, Co-Enzymes, Mechanism of action, Enzyme Inhibition, Allosteric enzymes</li> </ul>	
<b>Unit V: Nucleic Acids (Ch 8 Lehninger et al)</b>	<b>3</b>
<ul style="list-style-type: none"> <li>• Structure and functions of nucleic acids</li> </ul>	
<b>Unit VI: Vitamins: structure and biochemical role of (Ch 52, 53 Murray et al)</b>	<b>8</b>
<ul style="list-style-type: none"> <li>• Fat soluble vitamins – A,D, E and K</li> <li>• Water soluble vitamins – B<sub>1</sub>, B<sub>2</sub>, niacin, B<sub>6</sub>, folic acid, B<sub>12</sub> and ascorbic acid</li> </ul>	

**Unit VII: Minerals (Ch 44 Murray et al)**

7

- Biological role and bioavailability of inorganic elements – iron, calcium, phosphorous iodine, selenium and zinc

**RECOMMENDED READINGS**

- Lehninger AL, Nelson DL and Cox MM (2009). Principles of Biochemistry, 6<sup>th</sup> Ed. CBS Publishers and Distributors.
- Murray RK, Granner DK, Mayes PA and Rodwell VW (2009). Harper's Biochemistry, 28<sup>th</sup> ed. Lange Medical Book.

**NUTRITIONAL BIOCHEMISTRY-I  
PRACTICAL**

<b>Paper No.</b>	<b>:</b>	<b>HSHP- 515</b>
<b>Maximum Marks</b>	<b>:</b>	<b>50</b>
<b>Credits</b>	<b>:</b>	<b>2</b>
<b>Teaching Periods</b>	<b>:</b>	<b>4 / week</b>
<b>Teaching Load</b>	<b>:</b>	<b>12 Practicals/ semester (4 periods each)</b>

**OBJECTIVES**

This course will enable the students to:

1. Get an orientation to a laboratory.
2. Learn qualitative and quantitative analysis of carbohydrates, lipids, proteins.
3. Learn estimation of vitamins.

**CONTENT****PRACTICALS**

<b>1. i. Standard Solutions</b>	<b>2</b>
ii. Preparation of normal, molar and percent solutions	
<b>2. Carbohydrates</b>	<b>7</b>
• Qualitative tests for mono-, di-, and poly-saccharides and their identification in unknown mixtures	
• Estimation of reducing(glucose, lactose) and non reducing(sucrose) sugars by titration	
<b>3. Lipids</b>	<b>1</b>
• Qualitative tests for identification of lipids	
<b>4. Proteins</b>	<b>2</b>
• Qualitative tests for identification of amino acids and proteins	

**RECOMMENDED READINGS**

- Hawk, Oser and Summerson (1955). Practical Physiological Chemistry, Mc-Graw Hill, New York.
  - Sawhney, SK and Singh Randhir (2009). Introductory Practical Biochemistry, Narosa Publishing House Pvt. Ltd., New Delhi.
  - Sundararaj Pushpa and Siddhu Anupa (2006). Qualitative tests and Quantitative Procedures in Biochemistry, Elite Publishing House, New Delhi.
  - Tietz NW (ed) (1976). Fundamentals of Clinical chemistry. WB Saunders Co.
-

# ENTREPRENEURSHIP DEVELOPMENT AND ENTERPRISE MANAGEMENT

## THEORY

<b>Paper No.</b>	<b>: HSH- 525</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

## OBJECTIVES

1. To understand the meaning and concept of entrepreneurship development for women
2. To sensitize and orient them towards identifying entrepreneurial opportunities and market potential
3. To impart knowledge for setting up an enterprise and its management

## CONTENT

## PERIODS

### **Unit I: Entrepreneurship Development (Ch 1, 5 Taneja and Gupta) 12**

- 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
- Case profile of some successful entrepreneurs (repetition of the practical)

### **Unit II: Enterprise Planning and Launching (Ch 1, 3 Gundry) 12**

- Types of enterprises classification based on capital, product, location, ownership pattern and process
- Sensing business opportunities and assessing market potential; market research
- Selection and formulation of project plan: SWOT Analysis; Self/ Enterprise (shifted to practical)
- Estimation and mobilization of resources
- Appraising of project and feasibility

### **Unit III: Enterprise Management (Ch 4, 5 Gundry) 19**

- 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

**Unit IV: Enterprise Networking (Ch 15, Taneja and Gupta)****5**

- Enterprise Resource Planning: Concept, Dynamics and Methods
- Role of institutions providing assistance, manpower, consultancy, financial marketing
- Institutions providing support – CII, KVIC, NIESBUD, Fair Trade Organizations, NGO's, SME's, FICCI, corporate- sector

**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

## **ENTREPRENEURSHIP DEVELOPMENT AND ENTERPRISE MANAGEMENT**

**PRACTICAL**

<b>Paper Number</b>	<b>: HSHP- 525</b>
<b>Max Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Teaching Periods</b>	<b>: 4/ Week</b>
<b>Teaching Load</b>	<b>: 12 Practicals / Semester (4 Periods each)</b>

**OBJECTIVES**

1. To identify one's own strengths and weaknesses with respect to entrepreneurial characteristics and competencies.
2. To develop appreciation for entrepreneurship as a career.
3. To develop skills in launching and managing an enterprise.

**CONTENT****PRACTICALS**

1. SWOT analysis with respect to entrepreneurial competencies.	<b>2</b>
2. Achievement Motivation lab-development of entrepreneurial competencies	<b>5</b>
3. Case profiling of successful entrepreneurs and enterprises.	<b>1</b>
4. Survey of an institution facilitating entrepreneurship development in India.	<b>1</b>
5. Preparation of business plan.	<b>3</b>

**CHILD RIGHTS AND SOCIAL ACTION****THEORY**

**Paper no. : HSHT - 535**

**Max. Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

## OBJECTIVES

1. To understand the concept of child rights
2. To study the situation of children in India
3. To understand legislations and policies for children in India with reference to provisions for social action

## CONTENT

## PERIODS

### UNIT I: Introduction to Child Rights (Ch 1 Bajpai / Ch 6, 7, Weiner et al) 10

- Definition of the child
- The meaning of child rights
- The role of state, family and the child herself in promotion and protection of child rights
- Key philosophical underpinnings in the discourse on child rights
- General factors of exclusion- socio-economic and geo-political circumstances

### UNIT II: Status of India's children- situational analysis (Ch 3, 4, 5, 6, 7, 8 Bajpai/ Report of working group on Development of Children) 4

- Child survival
- Child development
- Child protection
- Child participation

### UNIT III: Vulnerable groups: causes and consequences (Ch 3, 4 Bhargava / Ch 5, 6 Virani) 22

- Street and working, destitute, homeless, orphans, minority communities, institutionalized
- Living with: chronic illness, HIV, disabilities
- Experiencing war, conflict, disaster
- Exploitation of children-trafficking, abuse, dysfunctional families
- Children in conflict with law

### UNIT IV: Framework for social action – Governmental and Non-Governmental Organizations (Ch 9 Bajpai / Ch 8 Bhargava) 12

- Constitutional provisions, international conventions
- National policies and programmes
- Laws for children
- Institutional and non-institutional services

## RECOMMENDED READINGS

- Bajpai, A. (2006). Child Rights in India: Law, Policy and Practice. New Delhi: Oxford University Press.
- Bhargava, V. (2005). Adoption in India: Policies and experiences. New Delhi: Sage Publication.
- Report of Working group on Development of Children: For the Eleventh Five Year Plan (2007-2012)
- Virani, P. (2000) Bitter chocolate: Child Sexual abuse in India: Penguin publishers

- Weiner, M, Burra, N and Bajpai, A. (2007). Born Unfree, Child Labour, Education, and the State in India: An Omnibus comprising, the Child and the State in India, Born to Work, and Child Rights in India (Extract): Oxford University Press.

## **CHILD RIGHTS AND SOCIAL ACTION**

### **PRACTICALS**

**Paper no.** : HSHP- 535  
**Maximum marks** : 50  
**Credits** : 2  
**Teaching Periods** : 4/ Week  
**Teaching Load** : 12 Practicals/ Semester (4 Periods each)

### **CONTENT**

### **PRACTICALS**

<b>UNIT I: Interactions with</b>	<b>2</b>
<ul style="list-style-type: none"> <li>• Children in need of care and protection</li> <li>• Functionaries in child rights organizations</li> </ul>	
<b>UNIT II: Visits</b>	<b>5</b>
<ul style="list-style-type: none"> <li>• Visits to Governmental and non-governmental programmes</li> </ul>	
<b>UNIT III: Planning programmes</b>	<b>2</b>
<ul style="list-style-type: none"> <li>• For social action- advocacy, training, health/nutritional awareness</li> </ul>	
<b>UNIT IV: Case Profile</b>	<b>3</b>
<ul style="list-style-type: none"> <li>• Case Profile of an organization / or child in a disadvantaged context</li> </ul>	

## **INDIAN TEXTILE HERITAGE**

### **THEORY**

**Paper No.** : HSHT- 545  
**Max. Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

### **OBJECTIVES**

1. To acquaint the students with textile traditions prevalent in India.
2. To create awareness and foster appreciation of the country's rich textile heritage.
3. To study the important textile arts in their historical perspective, the impact of modernization and their contemporary status.

### **CONTENT**

### **PERIODS**

**UNIT I: Importance of Indian Textiles in Historical Perspectives (Ch 5 Chattopadhyay)**

**5**

- Factors influencing development of textiles in India
- Processing of different fibres
  - Cotton
  - Wool
  - Silk

**UNIT II: Traditional textiles: with reference to origin, production, colour and design  
(Ch 2, 3, 4, 5 Das / Ch 5 Chattopadhyay)**

**Woven Textiles**

**8**

- Muslins
- Brocades, baluchari, paithani, kanchivaram
- Shawls

**Embroidered Textiles**

**8**

- Classification -folk, religious, court and commercial embroideries
- Regional Forms

**Resist dyed Textiles**

**6**

- Ikats
- Bandhini

**Painted- printed Textiles**

**6**

- Kalamkari, bagh, ajrakh

**UNIT III: Carpets and floor coverings (Ch 1, 2, 4, 5 Chattopadhyay)**

**5**

- Classification
- Regional variations

**UNIT IV: Status of Traditional Textiles in modern India**

**5**

- Interventions by organisations
- Evolution and socio-economic significance of khadi, handloom and handicraft sector

**UNIT V: Conservation of Traditional Textiles (Agarwal Pg 77 – 80)**

**5**

- Factors influencing degradation of textiles
- Care and Storage techniques

**RECOMMENDED READINGS**

- Agarwal, O.P., 1977, Care and Presentation of Museum projects – II, NRL
- Chattopadhaya, K.D., 1977, Indian Carpets and Floor Coverings, All India Handicrafts Board, New Delhi
- Chattopadhaya, K.D., 1995, Handicrafts of India, Wiley Eastern Limited, New Delhi
- Das, Shukla, 1992, Fabric Art- Heritage of India, Abhinav Publications, New Delhi

**INDIAN TEXTILE HERITAGE**

**PRACTICAL**

**Paper No. : HSHP- 545**  
**Maximum Marks: 100**

**Credits : 4**  
**Teaching Periods: 4/week**  
**Teaching Load : 12 Practicals /Semester (4 Periods each)**

<b>CONTENT</b>	<b>PRACTICALS</b>
Surface ornamentation techniques-	
1. Traditional embroidery stitches	3
2. Resist dyeing techniques – tie dye and batik	3
3. Block Printing and painting	2
4. Visit to the museum/ craft haat	1
5. Interface with an artisan	1
6. Product Development -Make an article using any of the above techniques	2

Students will study traditional textiles and collect designs for the portfolio.

## **TRAINING AND ADVOCACY**

### **THEORY**

**Paper No : HSH- 555**  
**Max. Marks : 100**  
**Credits : 4**  
**Teaching Periods : 4 Theory + 1 Interactive period / week**  
**Teaching Load : 48 Theory Periods + 12 Interactive periods / semester**

### **OBJECTIVES**

1. To get an overview of the concept, methods and significance of training for development of human resource.
2. To make the students aware about the concept and process of advocacy and planning an advocacy campaign.
3. To understand the relationship of Behaviour change communication (BCC) with advocacy, programme communication and social mobilization.

<b>CONTENT</b>	<b>PERIODS</b>
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<b>Unit I: Training: Concept (Ch 1, 2 Lyton and Pareek / Ch 5, 6, 7 James and Thacker)</b>	<b>10</b>
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- Nature, scope, advantages and limitations of training
- Training and learning
- Types of training
- Role of training in development

<b>Unit II: Designing Training Programs (Ch 8, 9 James &amp; Thacker)</b>	<b>14</b>
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- Tools and techniques for training
- Designing and evaluation of Training Programs for different stakeholders (grassroot functionaries, managers, policy makers)
- Agencies involved in training and development – NGOs, GOs and Corporate
- CSR – concept and initiatives

**Unit III: Advocacy (Ch 3 Mikkelsen / Ch 2, 3,4 Subedi) 12**

- Meaning, purpose and types of Advocacy
- Tools, techniques and approaches of advocacy
- Elements of an advocacy strategy
- Advocacy Planning Cycle - planning advocacy campaigns for different Stakeholders

**Unit IV: Advocacy and Behavior Change Communication (Ch 5 Subedi) 12**

- Concept of BCC
- Relationship between advocacy, programme communication and social mobilization
- BCC programmes – national and international perspectives

**RECOMMENDED READINGS**

- James W. Thacker C, (2004). Effectiveness Training – Systems, Strategies and Practices, Pearson Education.
- Lyton R and PareekU. (1990). Training for Development. New Delhi, Vistaar Publications.
- Mikkelsen, Britha, (2002), Methods For Development Work and Research, New Delhi, Sage Publications
- Subedi, N R, (2008). Advocacy Strategies and Approaches: A Training of Trainers Manual. International

**TRAINING AND ADVOCACY**

**PRACTICAL**

**Paper No : HSHP- 555**  
**Maximum Marks : 50**  
**Credits : 2**  
**Teaching Periods : 4/week**  
**Teaching Load : 12 Practicals/ Semester (4 periods each)**

**OBJECTIVES**

1. To develop skills in different training methods and techniques.
2. To learn the process of designing and evaluating training programmes.
3. To evaluate an advocacy campaign for social mobilization.

**CONTENT**

**PRACTICALS**

- Develop skills in the use of select training methods and materials. 4
- Develop training modules for specific target groups. 4
- Document and evaluate BCC campaigns for social mobilization and policy change. 4

# DIET THERAPY-I

## THEORY

<b>Paper No.</b>	:	<b>HSHT- 516</b>
<b>Maximum Marks</b>	:	<b>100</b>
<b>Credits</b>	:	<b>4</b>
<b>Teaching Periods</b>	:	<b>4 Theory + 1 Interactive Period/ week</b>
<b>Teaching Load</b>	:	<b>48 Theory Periods + 12 Interactive Periods/ semester</b>

### OBJECTIVES

This course will enable the students to understand:

1. Principles of diet therapy.
2. Modification of the normal diet for therapeutic purposes.
3. Dietary management in some common disorders / diseases.
4. Significance of dietary counselling.
5. Computer applications in diet therapy.

### CONTENT

### PERIODS

**Unit I: Principles of diet therapy and nutrition care process (Ch 10 Khanna et al / Ch 8, 9, 10 Bamji et al)**

**13**

- Principles of diet therapy
- Assessment of patient's nutritional needs
- Team approach in health care
- Planning, implementation and evaluation of nutrition care
- Dietary counselling in nutrition care
- Basics of nutrient and drug interaction
- Computer applications in nutrition care delivery

**Unit II: Therapeutic adaptations of the normal diet (Ch 10 Khanna et al / Ch 6 Joshi)**

**6**

- Qualitative and quantitative adaptations
- Progressive diets – clear fluid, full fluid, soft and regular
- Introduction to enteral and parenteral nutrition

**Unit III: Nutritional management of common disorders (Ch 11, 13, 14, Khanna et al / Ch 2, 6 Bamji et al / Ch 27, 28 Mahan and Escott-Stump/ Ch 18 Stacy)**

**26**

Etiology, clinical features, diagnosis and nutritional management of the following:

- Infections and Fevers – Short term and long term (Typhoid, Tuberculosis and HIV / AIDS)
- Stomach disorders – Gastritis and Ulcers
- Small and Large Intestines disorders – Diarrhoea, Constipation, Lactose intolerance, Steatorrhea and Celiac disease
- Liver disorders– Infective hepatitis

**Unit IV: Food allergy and food intolerance (Ch 29 Mahan and Escott-Stump / Ch 18 Stacy / Ch 14 Joshi)**

**3**

- Etiology, clinical features, diagnosis and nutritional management

## RECOMMENDED READINGS

- Bamji MS, Krishnaswamy K and Brahmam GNV (2009). Textbook of Human Nutrition, 3<sup>rd</sup> Edition. Oxford & IBH Publishing Co Pvt Ltd.
- Joshi SA. 2010. Nutrition & Dietetics. 3<sup>rd</sup> Edition. Tata McGraw- Hill Education Pvt. Ltd
- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (1997). Textbook of Nutrition and Dietetics. Phoenix Publishing House Pvt. Ltd.
- Mahan L K and Escott Stump S (2008). Krause's Food & Nutrition Therapy, 12<sup>th</sup> ed. Saunders-Elsevier.
- Stacy Nix (2009). William's Basic Nutrition and Diet Therapy, 13<sup>th</sup> Edition. Elsevier Mosby.

## DIET THERAPY - I

## PRACTICAL

<b>Paper No.</b>	<b>:</b>	<b>HSHP- 516</b>
<b>Maximum Marks</b>	<b>:</b>	<b>50</b>
<b>Credits</b>	<b>:</b>	<b>2</b>
<b>Teaching Periods</b>	<b>:</b>	<b>4 / week</b>
<b>Teaching Load</b>	<b>:</b>	<b>12 Practicals/ semester (4 periods each)</b>

## OBJECTIVES

This course will enable the students to learn:

1. Simple techniques of assessing nutritional status of the patients.
2. Application of the principles of normal nutrition for planning therapeutic diets.
3. Planning and preparation of diets for the patients suffering from some common diseases / disorders.
4. Dietary counselling for prevention and treatment of common diseases / disorders.
5. Use of nutrition software in diet therapy.

## CONTENT

## PRACTICALS

1. Assessment of nutritional status of the patients 3
  - Rapid nutritional assessment screening tools like MUST
  - Weight, linear and circumference measurements along with their proxy measures
  - Demonstration of a nutrition software
2. Planning, calculation, preparation, service and evaluation of diets for the patients suffering from the following diseases/ disorders: 9
  - (a) Therapeutic Diets
    - i. Normal diet with a 3- day cycle menu
    - ii. Soft Diet
    - iii. Liquid diets – Clear and full fluid
  - (b) Diets in fevers: acute and chronic
  - (c) Diets in GI Tract disorders:
    - i. Diarrhoea
    - ii. Constipation
  - (d) Diet in Infective Hepatitis

## RECOMMENDED READINGS

- ICMR (1989). 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.

- Sharma R (2011). Diet Management, Fourth Edition. Elsevier.
- WHO (1995). Physical status: the use and interpretation of anthropometry. Report of a WHO Expert Committee, WHO, TRS 854. Geneva: World Health Organisation,

## **DESIGN APPRECIATION AND PRODUCT DESIGN**

### **THEORY**

<b>Paper No.</b>	<b>:</b>	<b>HSHT-526</b>
<b>Max. Marks</b>	<b>:</b>	<b>100</b>
<b>Credits</b>	<b>:</b>	<b>4</b>
<b>Teaching Periods</b>	<b>:</b>	<b>4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>:</b>	<b>48 Theory Periods + 12 Interactive periods / semester</b>

### **OBJECTIVES**

1. To understand the elements of art & Design as applied to daily life.
2. To understand and apply the fundamental principles of design & décor for the interiors.
3. To develop skill in drawing, sketching and graphics to prepare interior plans.

### **CONTENT**

### **PERIODS**

#### **Unit I: Design Fundamentals (Ch 2 Lawrence)**

**16**

- 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 (Ch 8 Rextnikoff / Ch 10, 11, 12, 13, 14 Riley and Bayen)**

**12**

- Furniture – Types, Construction, Selection and purchase, Arrangement, Care and maintenance
- History of Interior Design – including periods like Mughal Architecture, Colonial style, Renaissance.

- Contemporary Trends in Interior Design with respect to furniture, furnishings & accessories.
- 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.

**Unit III: Interior & Exterior (Ch 5, 10 Reznikoff)**

**12**

- Architectural Styles –based on themes and main periods, like post Renaissance and modern style.
- 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).

**Unit IV: Landscaping (Ch 1, 4 Reznikoff)**

**8**

- Concept: Interiorscaping and Exteriorscaping /Landscape
- Elements of Landscape- Planting, earthwork form, use of decorative elements, Indoor & Outdoor Plants- Shrubs & Trees (Types, characteristics like appearance, height & girth, economic plants – using less water and resources to grow)
- Maintenance of landscape

**RECOMMENDED READINGS**

- Lawrence M, (1987), Interior Decoration, New Jersey: Chartwell Books.
- Reznikoff, S.C., (2002), Interior Graphic & Design, Whitney Library of Design.
- Riley & Bayen., (2003), The Elements of Design, Mitchell Beazley.

**DESIGN APPRECIATION AND PRODUCT DESIGN**

**PRACTICAL**

<b>Paper Number</b>	<b>: HSHP- 526</b>
<b>Max Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Teaching Periods</b>	<b>: 4 /Week</b>
<b>Teaching Load</b>	<b>: 12 Practicals /Semester (4 periods each)</b>

**OBJECTIVES**

1. To sharpen the drawing skills as a tool to express ideas.
2. To create awareness of various materials & finishes available for aesthetically designed interiors.
3. To develop skill in drawing, sketching and graphics to prepare interior plans.
4. To impart skills in developing computer aided designs.

## CONTENT

## PRACTICALS

- 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 of Trees (both floor plan & elevation), brick, grass, water, wood, stone, earth, concrete with
    - Water Colors.
    - Stubbing.
    - Pencil Colors.
- Preparation of catalogue comprising pictures denoting application of Art & Elements of Design; Color- Color Wheel, Dimension & Harmonies of Color. 1
- 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) 1
  - 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.
- Landscape plan (Manual/Computer aided) 1

## DEVELOPMENT IN ADULTHOOD

### THEORY

**Paper no.** : HSH-536  
**Max. Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

### OBJECTIVES

1. To understand the dimensions of development in adulthood.
2. To reflect on the concerns of the family and society with respect to the individual in adulthood.
3. To develop awareness of diversity in adult life styles in different socio-cultural contexts.

## CONTENT

## PERIODS

### **Unit I: Introduction to Adulthood (Ch 12 Rice / Ch 13 Lefrancois)**

4

- Concept and theoretical perspectives on adulthood
- Adult roles and expectations in different cultures
- Diversity in adult life style

### **Unit II: Early Adulthood (Ch 13, 14 Lefrancois / Ch 7 Rutter and Rutter)**

12

- Developmental tasks of early adulthood
- Physical changes
- Cognitive development
- Psycho-social development– self, identity, marriage and family, parenthood, family life cycle, work and gender relations

### **UNIT III: Middle Adulthood (Ch 15 Rice / Ch 7, 14 Santrock)**

14

- Physical development. Changing physiology and health. Adapting to physical changes, midlife changes/crisis, menopause in women, health concerns
- Cognitive development – attention, memory, cognitive skills in middle age, experience and expertise, adult intelligence
- Psycho-social changes-Issues of middle age- generativity vs. stagnation, concerns in middle age, career development and planning for retirement, civic roles and responsibilities
- Family life cycle

### **Unit IV: Late Adulthood (Ch 17, 21 Santrock / Ch 7 Rutter and Rutter)**

14

- Physical and physiological aspects of aging: health concerns; well-being and disability
- Cognitive changes in late adulthood- understanding dementia and other concerns of the elderly
- Psycho-social development- adjustment to aging, changing economic situation; occupational continuity and change, Leisure and recreation, facing death
- Perspectives on death

### **Unit 5: Elderly in India (Ch 15 Rice / Ch 18, 19 Santrock)**

4

- Magnitude of elderly in India
- Policies and Programmes for the elderly

## RECOMMENDED READINGS

- Lefrancois, G. R. (1996). The Life Span. Wadsworth Publication Company: USA: California.
- Rice, F. (1992). Human Development: A Life Span Approach. Prentice Hall.
- Rutter, M. and Rutter, M. (1992) Developing Minds. Challenge and continuity across the life span. London: Penguin.
- Santrock, J. W. (1997). Life Span Development. New York: Brown & Benchmark.

## DEVELOPMENT IN ADULTHOOD

### PRACTICAL

**Paper no.** : HSHP- 536  
**Maximum marks** : 50  
**Credits** : 2  
**Teaching Periods** : 4 per week  
**Teaching Load** : 12 Practicals / semester (4 Periods each)

### CONTENTS

### PERIODS

- |  |   |
|--|---|
| 1. Study of issues and concerns of individuals in different phases of adulthood using relevant methods of study. | 3 |
| 2. Psychological tests   | 2 |
| 3. Visits to settings such as homes for senior citizens  | 4 |
| 4. Case profile  | 1 |
| 5. Sociometry  | 2 |

## FABRIC SCIENCE II

### THEORY

**Paper No** : HSHT- 546  
**Max. Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

### OBJECTIVES

1. To impart the knowledge of various fabric construction techniques and fabric properties.
2. To provide knowledge about the concepts of mechanical and chemical finishing of textiles.

## CONTENT

## PERIODS

### **UNIT I: Techniques of fabric construction (Ch 4, 5, 7, 8 Corbman / Ch 11, 12, 13 Sekhri / Part 4 Joseph)** **10**

#### a. Weaving

- Yarn and their preparation for weaving
- Parts of a loom
- Operations and motions of the loom
- Types of looms on the basis of shedding and picking systems: basic loom, Dobby and Jacquard loom, shuttle less loom
- Classification of weaves
- Properties and fabrics in common use

#### • Knitting **6**

- Characteristics and advantages of knits
- Classification of knits
- Knitting machines, knitting needles
- Construction and properties of warp and weft knits

#### • Non woven and felts **3**

- Types
- Construction
- Properties and usage

#### b. Other methods of fabric construction **2**

- Braiding
- Knotting

#### • Fabric Defects **1**

### **UNIT II: Properties and quality standards of fabrics (Ch 4 Joseph)** **3**

- Thread count, gauge, fabric weight, strength, drape, luster and dimensional stability
- Labeling and standardization

### **UNIT III: Finishing (Ch 9, 10 Corbman / Ch 14 Sekhri / Ch 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 Marsh)** **14**

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

### **UNIT IV: Textile applications: fabric selection and enduse (Ch 6 Joseph)** **6**

- Apparel
- Home textiles

## UNIT V: Technical textiles (Ch 21 Joseph)

3

### RECOMMENDED READINGS

- Corbman, P.B., (1985) Textiles- Fiber to Fabric (6<sup>th</sup> Edition), Gregg Division/McGraw Hill Book Co., US.
- Joseph M.L., (1988) Essentials of Textiles ,6<sup>th</sup> edition, Holt, Rinehart and Winston Inc., Florida.
- Marsh, J.T., (1979) An Introduction to Textile Finishing, B.I. Publishers.
- Sekhri S., (2011) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi.

## FABRIC SCIENCE II

### PRACTICAL

<b>Paper No.</b>	<b>: HSHP- 546</b>
<b>Maximum Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Practical Periods</b>	<b>: 4/Week</b>
<b>Practical Load</b>	<b>: 12 Practicals/ Semester (4 periods each)</b>

### CONTENTS

### PRACTICALS

1. Weaves- Identification and their design interpretation on graph	2
2. Thread count and balance	1
3. Dimensional stability	1
4. Evaluation of drape of various fabrics	1
5. Strength of fabrics - tensile, bursting and tear	2
6. Evaluation of the weight and thickness of various fabrics	1
7. Fabric analysis	2
8. Colour fastness	2

## DEVELOPMENT COMMUNICATION

### THEORY

<b>Paper No</b>	<b>: HSHT- 556</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

### OBJECTIVES

1. To understand the concept of development communication.
2. To understand the various models of development as well as mass communication.
3. To understand the use of traditional as well as modern media for the purpose of development.

<b>CONTENT</b>	<b>PERIODS</b>
<b>Unit I: Concept of Development Communication (Ch 1 Rogers and Singhal / Ch 5 Pannu and Tomar)</b>	<b>10</b>
<ul style="list-style-type: none"> <li>• Role of communication in development</li> <li>• Development communication– concept, history and scope</li> <li>• Features of development communication</li> </ul>	
<b>Unit II: Perspectives to Development Communication (Ch 1 Rogers and Singhal / Ch 2 Srinivas and Leslie / Ch 5 Pannu and Tomar)</b>	<b>16</b>
<ul style="list-style-type: none"> <li>• Communication perspectives in development – models and approaches</li> <li>• Philosophy and Approaches to development communication</li> <li>• Development Support Communication – concepts and applications</li> <li>• Emerging development communication trends and innovations</li> </ul>	
<b>Unit III: Behavioral Change Communication (BCC) and Development Communication (Ch 7 Pannu and Tomar)</b>	<b>14</b>
<ul style="list-style-type: none"> <li>• Scope of development communication and BCC</li> <li>• Models of BCC</li> </ul>	
<b>Unit IV: Media for Development (Ch 1, 6 Pannu and Tomar)</b>	<b>8</b>
<ul style="list-style-type: none"> <li>• Role of traditional and mass media in development communication</li> <li>• Scope of ICTs in development communication</li> <li>• Innovative media and methods in Development</li> <li>• Success stories in Development Communication</li> </ul>	

### **RECOMMENDED READINGS**

- Melkote Srinivas R and Steeves Leslie H. (2001). Communication for Development in the Third World Theory and Practices for Empowerment. Sage Publications, New Delhi.
- Pannu, Parveen and Tomar Yuki Azaad (2010) 'ICT4D Using Information Communication Technologies for Development' IK International Publishing House, New Delhi.
- Rogers Everett and SinghalArvind. 'Information Communication from Bullock Carts to Cyber Marts'. Sage Publications.

## **DEVELOPMENT COMMUNICATION**

### **PRACTICAL**

<b>Paper No</b>	<b>: HSHP-556</b>
<b>Maximum Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Teaching Periods</b>	<b>: 4/week</b>
<b>Teaching Load</b>	<b>: 12 Practicals/ Semester (4 periods each)</b>

### **OBJECTIVES**

1. To enhance the skills for analyzing and appraising an ICT application.
2. To develop skills in the use of traditional media for development communication and social change.

<b>CONTENT</b>	<b>PRACTICAL</b>
• Appraisal of ICT application.	4
• Planning and development of ICTs for edutainment.	4
• Development and use of traditional media for social change.	4

# PHYSIOLOGY AND PROMOTIVE HEALTH

## THEORY

<b>Paper No.</b>	<b>: HSH- 606</b>
<b>Maximum Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive Period/week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive Periods/ semester</b>

### OBJECTIVES

This course will enable the students to:

1. Understand the physiology of all the systems of the human body.
2. Develop a holistic understanding of mental, reproductive and social health.
3. Develop the awareness of major communicable and non-communicable diseases.

### CONTENT

### PERIODS

<b>Unit I: Cardio Thoracic Physiology (Ch 1, 5, 7 Ross and Wilson / Ch 6 Ganong)</b>	<b>9</b>
Blood and Cardio-vascular Physiology	
• Blood -Composition and function, Anemia, Jaundice	
• Structure of heart, circulations (systemic, pulmonary, coronary and portal)	
• Cardiac cycle, Cardiac output	
• Blood pressure, Hypertension, Myocardial Infarction	
• Respiratory Physiology	
• Structure of lungs and its function	
• Hypoxia, Lung function tests	
• Lung volume and Capacities	
<b>Unit II: Gastro Physiology (Ch 9 Ross and Wilson / Ch 5 Ganong)</b>	<b>6</b>
• Structure of stomach, liver, gallbladder, pancreas and their functions	
• Composition, function and regulation of GI secretions	
<b>Unit III: Neurophysiology (Ch 12 Ross and Wilson)</b>	<b>2</b>
Organization of nervous system	
• Structure of Brain ,Spinal cord and their functions	
<b>Unit IV: Endocrine Physiology (Ch 14 Ross and Wilson / Ch 4 Ganong)</b>	<b>4</b>
• Actions and disorders of Pituitary, Thyroid and Parathyroid, Adrenal and Pancreatic hormones	
<b>Unit V: Reproductive Physiology (Ch 15 Ross and Wilson)</b>	<b>4</b>
Structure of uterus, ovaries and mammary gland and its functions	
• Physiology of Menstruation and Menopause	

- Physiology of Pregnancy and lactation

**Unit VI: Excretory Physiology (Ch 10 Ross and Wilson) 3**

- Structure of kidney and its function
- Urine formation
- Renal function test

**Unit VII: Geriatric Physiology (Ch 1 Ganong) 2**

- Basic concepts of aging

**Unit VIII: Epidemiology of Disease (Ch 2, 5, 6 Park) 9**

Concept of Health and Disease

- WHO definition of Health
- Definition and Basic concept of Disease and Disease transmission
- Epidemiological triad of disease  
Communicable Diseases
- Causative organism, Mode of transmission and Prevention and Control of Measles, Enteric Fever, Malaria, Dengue fever, HIV/AIDS  
Non Communicable Diseases
- General risk factors and Prevention of Diabetes, Hypertension and Cancer

**Unit IX: Promotive Health (Ch 3, 10, 18 Park) 9**

Concept of Prevention

- Definition of Public Health and Prevention,
- Levels of prevention of a disease
- General modes of Intervention
- Concept of Immunization and Immunization Schedule (WHO and IAP)

Maternal Health

- Preconception and Antenatal Care
- Family Planning; Definition and Health Aspects
- Brief outline of the common contraceptive methods used

Mental Health and Wellbeing

- Introduction to Drug Dependence and Alcoholism
- Introduction to the Benefits of Yoga/Exercise and its role in coping with stress

**RECOMMENDED READINGS**

- Ganong WF (2005). Review of Medical Physiology, 22<sup>nd</sup> ed. McGraw Hill.
- Park K (2009). Park's Textbook of Preventive and Social Medicine, 20<sup>th</sup> edition. M/s Banarsi Das Bhanot, Jabalpur.
- Ross and Wilson (1987). Foundation of Anatomy and Physiology, (6<sup>th</sup> Edition) Medical Division of Longman Group Ltd.

# PRINCIPLES OF FOOD PROCESSING THEORY

<b>Paper No.</b>	:	<b>HSHT-617</b>
<b>Maximum Marks</b>	:	<b>100</b>
<b>Credits</b>	:	<b>4</b>
<b>Teaching Periods</b>	:	<b>4 Theory + 1 Interactive Period/ week</b>
<b>Teaching Load</b>	:	<b>48 Theory Periods + 12 Interactive Periods/ semester</b>

## OBJECTIVES

This course will enable the students to:

1. Have coherent and systematic knowledge of basic food chemistry.
2. Understand role of micro-organisms in relation to processing and spoilage.
3. Understand basic principles involved in preservation and spoilage.
4. Impart knowledge about the national and international food laws.
5. Learn the basic sensory and objective evaluation of food.

## CONTENT

## PERIODS

<b>Unit I: Basic food chemistry (Ch 2, 3, 4, 11 Manay and Shadaksharaswamy)</b>	<b>14</b>
<ul style="list-style-type: none"><li>• Carbohydrates – Sources, chemistry, functionality.</li><li>• Lipids – Sources, chemistry and composition.</li><li>• Proteins – Sources, composition, protein concentrates, isolates, hydrolysates and textured protein products.</li><li>• Colloidal chemistry: Definition, classification, properties and applications of sols, gels, foams and emulsions.</li></ul>	
<b>Unit II: Basic food microbiology (Ch 2, 4 Frazier and Westhoff / Ch 22 Potter)</b>	<b>10</b>
<ul style="list-style-type: none"><li>• Introduction to yeast, mold and bacteria - Characteristics and their role in preservation and spoilage of food.</li><li>• Hygiene and sanitation practices in food processing - waste reduction and waste disposal.</li></ul>	
<b>Unit III: Preservation techniques, principles and their applications (Ch 30 Manay and Shadaksharaswamy)</b>	<b>10</b>
<ul style="list-style-type: none"><li>• High temperature, low temperature, removal of moisture, irradiation and preservatives.</li></ul>	
<b>Unit IV: Sensory science (Ch 28 Manay and Shadaksharaswamy)</b>	<b>4</b>
<ul style="list-style-type: none"><li>• Physiological basis of sensory evaluation and sensory attributes of food.</li><li>• Sensory evaluation: Assessment, subjective and objective.</li></ul>	
<b>Unit V: Quality Assurance (Ch 14 Srilakshmi)</b>	<b>10</b>
<ul style="list-style-type: none"><li>• National and International food laws - FSSA (PFA, FPO, MFPO, MMPO, SWMA, SEO), BIS, AGMARK, Codex, SPS, TBT, and ISO: 22000, ISO: 9000, ISO: 14000.</li><li>• Quality Assurance procedures - GMP, GHP, HACCP</li></ul>	

## 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.

## PRINCIPLES OF FOOD PROCESSING PRACTICAL

<b>Paper No.</b>	<b>: HSHP-617</b>
<b>Maximum marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Practical periods</b>	<b>: 4/ Week</b>
<b>Practical Load</b>	<b>: 12 Practicals/ Semester (4 Periods each)</b>

### OBJECTIVES

This course will enable the students to:

1. Understand the basic concepts of food science and its applications in processing of food.
2. Analyse quality parameters of various food.
3. Gain practical knowledge about food components and their role in cooking.

### CONTENT

### PRACTICALS

1. 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	
iii. Effect of temperature on solubility of sugar and its applications	6
2. i. Slide preparation and identification of bacteria yeast and mold	
ii. Assessment of hygienic practices of food handlers	3
3. Effect of heat and additives on enzyme inactivation	1
4. i. Sensory evaluation methods and their applications.	2
ii. Instrumentation in Food analysis: pH, colour, Total soluble solids by refractometer, Spectrophotometer/Colorimeter.	

### RECOMMENDED READINGS

- 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.

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# ORGANIZATIONAL BEHAVIOUR

## THEORY

<b>Paper No.</b>	<b>: HSH-627</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

### OBJECTIVES

1. To understand personal, interpersonal and organizational processes.
2. To examine issues that influence the management of people in complex and evolving organizations

### CONTENT

### PERIODS

<b>Unit I Organisational Behavior (Ch 3 Stephens / Ch 1 Luthans)</b>	<b>6</b>
<ul style="list-style-type: none"><li>• Definition</li><li>• Importance</li><li>• Different models of OB – autocratic, custodial, supportive, collegial and SOBC</li></ul>	
<b>Unit II: Understanding Human Behaviour- I (Ch 2 Aswathappa / Ch 4 Robbins)</b>	<b>6</b>
<ul style="list-style-type: none"><li>• Perception Process - Nature &amp; Importance</li><li>• Personality and Attitudes</li><li>• Meaning of personality - Development of personality</li><li>• Nature and dimensions of attitude - Job Satisfaction - Organizational Commitment</li></ul>	
<b>Unit III: Understanding Human Behaviour- II (Ch 8, 9 Sharma)</b>	<b>8</b>
<ul style="list-style-type: none"><li>• Learning - Process of Learning - Principles of Learning</li><li>• Organizational Reward Systems - Behavioural Management</li><li>• Motivation - Motives - Characteristics - Classification of motives - Primary Motives ,Secondary motives, theories of motivation- Hertzberg</li><li>• Leadership – Definition – Importance – Leadership Styles</li></ul>	
<b>Unit IV: Stress Management (Ch 12 Luthans / Ch 18 Stephens)</b>	<b>6</b>
<ul style="list-style-type: none"><li>• Concept of stress</li><li>• Sources of stress</li><li>• Effects of stress on humans</li><li>• Management of Stress</li><li>• Strategies for encouraging constructive conflict, Strategies for resolving destructive constructive conflict</li></ul>	
<b>Unit V: Group Dynamics and Teams (Ch 5 Sharma)</b>	<b>8</b>
<ul style="list-style-type: none"><li>• Group Formation - Formal Organization and Informal Groups and their interaction</li></ul>	

- Importance of teams – Formation of teams, Team Work

**Unit VI: Organizational Culture and Structure (Ch 17 Stephens) 8**

- organizational structures and their effects on human behavior
- Organizational Climate
- Organizational Culture
- Organizational Effectiveness

**Unit VII: Change Management (Ch 12, Sharma) 6**

- Management of Change
- Importance
- Forces responsible for change
- Resistance to change
- Overcoming resistance to change

**RECOMMENDED READINGS**

- Aswathappa,K.,2005,Organizational Behaviour, Himalaya Publishing House, New Delhi.
- Fred Luthans,2005,Organizational Behaviour ,McGraw Hill Publishing Company,New York.
- Sharma.R.A.,2004,Organisational Theory & Behaviour, Tata McGraw Hill, New Delhi.
- Stephen P. Robbins, 2001,Organizational Behaviour, PMI India Pvt Ltd, New Delhi.

**ORGANIZATIONAL BEHAVIOUR**

**PRACTICAL**

**Paper Number : HSHP-627**  
**Maximum Marks : 50**  
**Credits : 2**  
**Teaching Pds/Wk : 4 /Week**  
**Teaching Load/Sem : 12 Practicals /Semester (4 Periods each)**

**OBJECTIVES**

1. To identify individual, team and structural characteristics that influence behavior within organizations
2. To prepare students for managerial careers.
3. To demonstrate effective teamwork behaviors.

**CONTENT**

**PRACTICALS**

- Case study of an Organization 1
- Case profiling of an employee with respect to job specifications, performance and satisfaction. 2
- Study/Simulations in team work - participating in team activities, Team formation, resolving conflict, completing subtasks in a time. 4
- Study of leadership styles 3
- Survey of organizational development strategies 2

# CARE AND WELL-BEING IN HUMAN DEVELOPMENT

## THEORY

<b>Paper No.</b>	:	<b>HSHT- 637</b>
<b>Max. Marks</b>	:	<b>100</b>
<b>Credits</b>	:	<b>4</b>
<b>Teaching Periods</b>	:	<b>4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	:	<b>48 Theory Periods + 12 Interactive periods / semester</b>

## OBJECTIVES

1. To understand the significance of care and well-being in human development
2. To understand the concerns at different stages of life
3. To explore the availability of services and institutions that promote care and well-being.

<b>CONTENT</b>	<b>PERIODS</b>
<b>Unit I : Care and Human Development (Ch 1 Davar / Ch 1, 2 Ghosh)</b>	<b>8</b>
<ul style="list-style-type: none"><li>• Definition, concept and relevance of care</li><li>• Vulnerable periods in life that require care</li><li>• Principles of caregiving</li></ul>	
<b>Unit II: Well being and Human Development (Ch 3, 4 Ghosh / Ch 5, 7 Chelsea)</b>	<b>8</b>
<ul style="list-style-type: none"><li>• Holistic concept of well-being</li><li>• Promoting well-being</li><li>• Relationship between care and well-being</li><li>• Subjective well being</li></ul>	
<b>UNIT III: Care and Well-being in Childhood (Ch 9, 10, 11, 12, 13, 14 Ghosh)</b>	<b>12</b>
<ul style="list-style-type: none"><li>• Critical issues during infancy and early childhood years</li><li>• Critical issues during middle childhood and adolescence</li><li>• Health care; nutritional and psychological counseling</li></ul>	
<b>UNIT IV: Care and Well-being in Adulthood (Ch 5, 6, 7 Swaminathan)</b>	<b>10</b>
<ul style="list-style-type: none"><li>• Adults as caregivers and their needs</li><li>• Experiencing wellness at different stages and work domains of adulthood</li><li>• Care needs of elderly</li><li>• Health and nutritional care</li><li>• Spiritual and psychological well-being</li></ul>	
<b>UNIT V: Policies, Services and Programmes (Ch 15 Davar / Ch 15 Ghosh)</b>	<b>10</b>

- Community resources for well-being
- Provisions and services that promote well-being
- School health programmes
- Counselling services for individuals and families

## RECOMMENDED READINGS

- Chelsea, C., Fielder, D., Komilzoda, S. & Pathmanathan, I. (2009). Child health policy and programming for marginalized communities. New Delhi: UNICEF
- Davar, B.V. (Ed.) (2001). Mental health from a gender perspective. New Delhi: Sage.
- Ghosh, S. (1981). The Feeding & Care of Infant & Young Children. New Delhi: Voluntary Health Association of India.
- Swaminathan, M. (1985). Who cares? : A study of child care facilities for low income working women in India. New Delhi: Centre for Women's Development Studies.

## CARE AND WELL BEING IN HUMAN DEVELOPMENT

### PRACTICAL

<b>Paper No.</b>	<b>: HSHP-637</b>
<b>Maximum Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Practical Periods</b>	<b>: 4/Week</b>
<b>Practical Load</b>	<b>: 12 Practicals/semester (4 periods each)</b>

### CONTENT

### PRACTICALS

1. Observation of an infants in natural settings to understand their care needs	2
2. Interview of a young mother of a preschool child as a caregiver.	1
3. Interview of an adult above 60 years.	1
4. Visits to : A health and fitness centre A counseling centre/clinic A centre for the elderly	4
5. Participation in a self development workshop	1
6. Familiarity with methods of assessment of well-being	3

## DYEING AND PRINTING

### THEORY

<b>Paper No.</b>	<b>: HSHT-647</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

### OBJECTIVES

5. To impart knowledge of various types of dyes and auxiliaries for dyeing and printing of fabrics.
6. To study methods and styles of printing fabrics.

<b>CONTENT</b>	<b>PERIODS</b>
<b>UNIT I: Preparation of fabric for dyeing and printing (Ch 2 Storey)</b>	<b>6</b>
<ul style="list-style-type: none"> <li>• Cellulosics, protein and man-made</li> </ul>	
<b>UNIT II: Dyeing (Ch 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 Shenai)</b>	<b>15</b>
<ul style="list-style-type: none"> <li>• Terminology and theory of dyeing</li> <li>• Classification of dyes</li> <li>• Chemistry and mode of application of direct, acid, basic, azoic, reactive, sulphur, vat, mordant and disperse dyes</li> <li>• Dyeing with natural dyes</li> <li>• Stages of dyeing- fiber, yarn, fabric and garment dyeing: equipment and effect on design</li> <li>• Principles of colour fastness</li> <li>• Dyeing defects</li> </ul>	
<b>UNIT III: Auxiliaries (Ch 1, 2, 3, 4, 5, 6 Shenai / Ch 3 Clarke)</b>	<b>6</b>
<ul style="list-style-type: none"> <li>• Wetting agents, dispersing agents and solvents</li> <li>• Hygroscopic agents</li> <li>• Anti foaming agents</li> <li>• Oxidizing and reducing agents</li> <li>• Carriers</li> <li>• Binders and thickeners</li> </ul>	
<b>UNIT IV: Printing (Ch 1, 2, 3, 4, 5, 6, 7, 8 Storey / Ch 1, 2, 6, 7 Miles)</b>	<b>15</b>
<ul style="list-style-type: none"> <li>• Methods of printing: Historical development, effects and designs produced, advantages and limitations of the following techniques: <ul style="list-style-type: none"> <li>-block printing</li> <li>- flat plate and roller printing</li> <li>-stencil, screen, flat and rotary</li> </ul> </li> <li>• Styles of printing- direct, discharge, resist, dyed</li> <li>• Printing defects</li> </ul>	
<b>UNIT V: After treatment of printed goods (Ch 6 Clarke / Ch 9, 10 Storey)</b>	<b>6</b>
<ul style="list-style-type: none"> <li>• Ageing</li> <li>• Steaming</li> <li>• Baking</li> <li>• Wet Development</li> <li>• Dyeing</li> <li>• Washing</li> </ul>	

### **RECOMMENDED READINGS**

- Clarke, W (1977), An Introduction to Textile Printing, London, Butterworth and Co. Ltd.
- Miles L.W.C. (1994), Textile Printing, 2<sup>nd</sup> edition, England, Society of Dyers and Colourists .
- Shenai, V.A. (1980) Chemistry of Textile Auxiliaries, Vol II, Bombay, India, Sevak Publications.
- Shenai, V.A. (1987), Chemistry of Dyes and Principles of Dyeing, Vol II, Bombay, India, Sevak Publications.
- Storey, Joyce (1974) Textile Printing, London, Thames and Hudson.

## DYEING AND PRINTING

### PRACTICAL

<b>Paper No.</b>	<b>: HSHP-647</b>
<b>Maximum Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Practical Periods</b>	<b>: 4/Week</b>
<b>Practical Load</b>	<b>: 12 Practicals/ Semester (4 periods each)</b>

### CONTENT

### PRACTICALS

1. Dyeing	
• Preparation of shade card	8
- on cotton using direct, reactive, azo and vat	
- on wool and silk using acid, basic, reactive	
2. Printing with blocks and screen using	4
• Pigment colours	
• Reactive dyes	
• Acid dyes	

## SUSTAINABLE DEVELOPMENT

### THEORY

<b>Paper No</b>	<b>: HSHT-657</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

### OBJECTIVES

1. To understand the concept of sustainable development.
2. To familiarize the students with different perspectives in sustainable development.
3. To sensitize the students to contemporary issues in sustainable development.

### CONTENT

### PERIODS

<b>Unit I: Concept of Development (Ch 1 Jaswal / Ch 1 Gadgil)</b>	<b>12</b>
• Indicators of development	
• Growth vs Development	
• Difference between developed and developing countries	
• Development models	
<b>Unit II: Perspectives in Sustainable Development (Ch 12 Chokar / Ch 2 Gadgil)</b>	<b>10</b>
• Relationship of environment with development	
• Sustainability – meaning, concept and implications for development	
• Sustainable development- meaning, concept and elements	

- Environmental perspectives and ideologies in development

**Unit III: Management of natural resources (Ch 3, 4 Bharucha) 14**

- Natural Resources – types, nature and status
- Depletion and pollution of Natural resources – causes and impact
- Climate change and ozone depletion
- Management, conservation and protection of natural resources
- Common Property Resources – concept, status and challenges
- Energy and Development – types and impact

**Unit IV: Linkages between environment, population and development (Ch 7 Barucha / Ch 5, 7 Gadgil / Ch 8, 9, 10, 11, 12, 13 Chokar) 12**

- Relationship between population, consumption and environment
- Environmental friendly technologies for agriculture, migration, industry and the urban environment
- Policies, Programmes and Laws influencing sustainable development
- Environmental campaigns and programmes – National and International initiatives

**RECOMMENDED READINGS**

- Bharucha Erach, (2005). Textbook of Environmental Studies for Undergraduate Courses Hyderabad: Universal Press (India) Private Limited.
- Chokar, K.B., Pandaya, M. and Raghunathan, M. (2004). Understanding Environment. New Delhi: Sage Publications & CEE.
- Gadgil, M. and Guha, R. (1995) Ecology and Equity. New Delhi, Penguin Books.
- Jaswal P.S., (2006). Environmental Law. Faridabad: Allahabad Law Agency

**SUSTAINABLE DEVELOPMENT  
PRACTICAL**

**Paper No : HSHP-657**  
**Maximum Marks : 50**  
**Credits : 2**  
**Teaching Periods : 4 /week**  
**Teaching Load : 12 Practical/ Semester (4 periods each)**

**OBJECTIVES**

1. To impart skills in various techniques of environmental impact assessment.
2. To sensitize the students to various contemporary environment friendly technologies.

**CONTENT PRACTICALS**

- Environmental Impact assessment. 4
- Environment Campaign / Programmes – design and evaluation. 5
- Environment friendly technologies. 3

# DIET THERAPY-II

## THEORY

<b>Paper No.</b>	:	<b>HSHT-618</b>
<b>Maximum Marks</b>	:	<b>100</b>
<b>Credits</b>	:	<b>4</b>
<b>Teaching Periods</b>	:	<b>4 Theory + 1 Interactive Period/ week</b>
<b>Teaching Load</b>	:	<b>48 Theory Periods + 12 Interactive Periods/ semester</b>

### OBJECTIVES

This course will enable the students to understand:

1. Prevention, dietary management and diet counselling in common degenerative disorders.
2. Principles of developing dietetic food products.

### CONTENT PERIODS

#### **Unit I: Weight Management (Ch 12 Khanna et al / Ch 7 Joshi / Ch 21 Mahan and Escott-Stump / Ch 15 Stacy) 12**

Etiology, clinical features, basic diagnosis, complications, nutritional and life style modifications and dietary counselling in Weight management

- Overweight and obesity
- Underweight
- Eating disorders: anorexia nervosa and bulimia

#### **Unit II: Cardio-vascular and Common Metabolic Disorders (Ch 23, 24 Bamji et al / Ch 15, 16 Khanna et al) 25**

Etiology, clinical features, basic diagnosis, complications, nutritional management, life style modifications and dietary counselling in cardio-vascular/ common metabolic disorders.

- Cardio-vascular Disorders
  - Hypertension
  - Hyperlipidemias, Atherosclerosis
  - Introduction to Myocardial Infarction and Congestive Heart Failure
- Diabetes Mellitus - Type 1 and Type 2
- Metabolic Syndrome
- Gout

#### **Unit III: Nutritional Management in Cancer (Ch 25 Bamji et al / Ch 37 Mahan and Escott-Stump / Ch 23 Stacy) 6**

- An overview of the etiology, modes of therapy, nutritional management and prevention

#### **Unit IV: Alzheimer's and Parkinson's disease (Ch 41 Mahan and Escott-Stump / Ch 23 Stacy) 3**

- Feeding problems and dietary management

**RECOMMENDED READINGS**

- Bamji MS, Krishnaswamy K and Brahmam GNV (2009). Textbook of Human Nutrition, 3<sup>rd</sup> Edition. Oxford & IBH Publishing Co Pvt Ltd.
- Joshi SA. 2010. Nutrition & Dietetics. 3<sup>rd</sup> Edition. Tata McGraw- Hill Education Pvt. Ltd.
- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (1997). Textbook of Nutrition and Dietetics. Phoenix Publishing House Pvt. Ltd.
- Mahan L K and Escott-Stump S (2008). Krause's Food & Nutrition Therapy, 12<sup>th</sup> ed. Saunders-Elsevier.
- Stacy Nix (2009). William's Basic Nutrition and Diet Therapy, 13<sup>th</sup> Edition. Elsevier Mosby.

**DIET THERAPY - II****PRACTICAL**

<b>Paper No.</b>	<b>:</b>	<b>HSHP-618</b>
<b>Maximum Marks</b>	<b>:</b>	<b>50</b>
<b>Credits</b>	<b>:</b>	<b>2</b>
<b>Teaching Periods</b>	<b>:</b>	<b>4 / week</b>
<b>Teaching Load</b>	<b>:</b>	<b>12 Practicals/ semester (4 periods each)</b>

**OBJECTIVES**

This course will equip the students for:

1. Planning and preparation of diets for common degenerative diseases / disorders.
2. Development of dietetic food products.
3. Dietary counselling for prevention / treatment of common degenerative diseases / disorders.
4. Development of diet counselling aids.
5. Use of computers in diet therapy.

**CONTENT****PRACTICALS**

1. Planning, calculation, preparation, service and evaluation of diets for the patients suffering from following:

- Overweight/Obesity and Underweight
- Type 2 Diabetes Mellitus
- Cardiovascular Disorders:
  - Hypertension
  - Atherosclerosis

2. Market survey of dietetic food products	<b>1</b>
3. Planning and preparation of a dietetic food product	<b>1</b>
4. Demonstration of the use of computer package for nutrition care process	<b>1</b>
5. Designing and preparation of a dietary counselling aid	<b>2</b>

**RECOMMENDED READINGS**

- ICMR (1989). 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.
- Sharma R (2011). Diet Management, Fourth Edition. Elsevier.

# ERGONOMIC DESIGN

## THEORY

<b>Paper No.</b>	<b>: HSH-628</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

### OBJECTIVES

- To develop aptitude in identifying the product / space design problems at home and at work, using basic design principles.
- To understand interface of the human element and the user's perspective in the evolution of product/space design.
- To provide insight into professional practice in design development.

### CONTENT

### PERIODS

<b>Unit I: Introduction (Ch 1 Baiche and Walliman)</b>	<b>12</b>
<ul style="list-style-type: none"><li>• Ergonomics- concept, significance, history and growth.</li><li>• Applications of Ergonomics in design and work efficiency</li><li>• The bio- mechanisms of work as related to the user, the work and the environment</li></ul>	
<b>Unit II: The User (Ch 3 Steidl and Bratton / Ch 1, 2 Wilson and Covlett )</b>	<b>12</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><li>• Anthropometric Measurements – History, concept and relevance of anthropometric measurement and their application in interior designing; anthropometric requirements of users for specific jobs, work areas, age and gender of the worker.</li></ul>	
<b>Unit III: The Work Environment (Ch 4, 5, 6 Wilson and Covlett)</b>	<b>12</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: The Product (Ch 5, Dalela / Ch 1 Norris and Wilson)</b>	<b>12</b>
<ul style="list-style-type: none"><li>• Type, Job Description, Design and analysis of work</li><li>• Product Design and Development – Design communication - Specific equipment design features (controls and displays), socio-psychological aspect of product designs.<ul style="list-style-type: none"><li>- Product design concept- functionalism and aesthetics</li><li>- Ergonomic considerations in designing products<ul style="list-style-type: none"><li>o Furniture- (chairs, cupboards, cabinets, beds, dressers)</li><li>o Kitchen tools</li><li>o Surface-cooking utensils</li><li>o Electrical equipment.</li></ul></li></ul></li></ul>	

### 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.
- Norris, B. and Wilson, J. R., 2001, Designing Safety into Products. London: Taylor and Francis.
- Steidl and Bratton, 1967, Work in the Home. John Wiley and Sons. New York.
- Wilson, J.R. and Covlett, N., 2001, Evaluation of Human Work: A Practical Ergonomics Methodology. London: Taylor and Francis

## **ERGONOMIC DESIGN**

### **PRACTICAL**

**Paper No.** : **HSHP-628**  
**Maximum Marks** : **50**  
**Teaching Periods** : **4/Week**  
**Teaching Load** : **12 Practicals /Semester (4 Periods each)**

### **OBJECTIVES**

- To sensitize the students towards design characteristics
- To familiarize them with the trends in design concepts
- To develop analytical ability designing spaces and products.

### **CONTENT**

### **PRACTICALS**

1. Basic anthropometry- space norms/ standards	1
2. Energy costs of common activities –	1
3. Time and motion study	2
4. Designing residential furniture (study table, wardrobe, storage cabinets, chair, multipurpose furniture, modular furniture etc) and office furniture.	1
5. Equipment Evaluation: Kitchen tools, surface-cooking utensils	2
6. and electrical equipment	
7. Space design – preparing floor and elevation plans.	4
• Kitchen	
• Workstation	
8. Portfolio of any product from ergonomic perspective	1

## **GENDER AND SOCIAL JUSTICE**

### **THEORY**

**Paper No.** : **HSHT- 638**  
**Max. Marks** : **100**  
**Credits** : **4**  
**Teaching Periods** : **4 Theory + 1 Interactive period / week**  
**Teaching Load** : **48 Theory Periods + 12 Interactive periods / semester**

### **OBJECTIVES**

1. To understand the social construction of gender

2. To sensitize students to issues related to gender disparity in India
3. To provide varied perspectives on women empowerment and gender justice

<b>CONTENT</b>	<b>PERIODS</b>
<b>Unit I: Understanding Gender: Basic Concepts (Ch 11 Mohanty)</b>	<b>8</b>
<ul style="list-style-type: none"> <li>• Sex and Gender</li> <li>• Masculinity and femininity</li> <li>• Biological and cultural determinants</li> </ul>	
<b>Unit II: Gender and Society (Ch 1, 2, 3, 4, 5 Menon / Ch 11, 12, 13 Mohanty)</b>	<b>10</b>
<ul style="list-style-type: none"> <li>• Patriarchy and social institutions</li> <li>• Being male and female in Indian Society</li> <li>• Women’s movements in India</li> <li>• Perspectives on Feminism</li> </ul>	
<b>Unit III: Social Construction of Gender (Ch 6, 7, 8 Menon / Ch 14 Mohanty)</b>	<b>10</b>
<ul style="list-style-type: none"> <li>• Socialization for gender</li> <li>• Gender roles, stereotypes and identity</li> <li>• Social traditions: History, mythology and literature</li> <li>• Contemporary Influences: Work, media, popular culture</li> <li>• Caste, class and religious influences on gender roles</li> </ul>	
<b>Unit IV: Girl Child and Women in India (Ch 12 Mohanty / Ch 1, 2 Saikia)</b>	<b>10</b>
<ul style="list-style-type: none"> <li>• Demographic profile</li> <li>• Health, nutrition and education</li> <li>• Sexuality and reproductive Health</li> <li>• Female feticide, infanticide and violence against women</li> </ul>	
<b>Unit V: Gender Justice (Part 2, 3 Saikia)</b>	<b>10</b>
<ul style="list-style-type: none"> <li>• Laws, policies and programmes for women</li> <li>• Women’s empowerment and politics</li> </ul>	

#### **RECOMMENDED READINGS**

- Saikia, N. (2008). Indian women: A socio-legal perspective. New Delhi: Serials Publication.
- Mohanty, M. (2008). Class, Caste and Gender. New Delhi: Sage.
- Menon N. (2008). Sexualities: Issues in Contemporary Indian feminism. New Delhi: Macmillan

## **GENDER AND SOCIAL JUSTICE**

## PRACTICALS

<b>Paper No.</b>	<b>: HSHP-638</b>
<b>Maximum Marks</b>	<b>: 50</b>
<b>Credits</b>	<b>: 2</b>
<b>Practical Periods</b>	<b>: 4</b>
<b>Practical Load</b>	<b>: 12 Practicals/Semester (4 periods each)</b>

### CONTENT

### PRACTICALS

1. **Visits** to organizations working in the area of women's empowerment to understand their objectives, programmes and experiences **3**
2. **Workshops** by resource persons on issues related to gender such as domestic violence, laws for women, reproductive health **3**
3. **Interactions** to understand gender realities in diverse social groups through field visits and preparing and utilizing interview schedules **3**
4. **Placements** to learn programme planning, advocacy, training and awareness for women's empowerment **2**
5. **Media portrayals** of gender realities **1**

#### Films:

1. Documentaries from 'Under Construction' including Unlimited Girls; Skin Deep; Who's afraid of little girls; Annapurna; Colours Black
2. Select Feature Films

## DESIGN: CONCEPTS AND APPLICATION

### THEORY

<b>Paper No.</b>	<b>: HSHT- 648</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

## OBJECTIVES

1. To explain the fundamentals of art and design as related to fabric and apparel.
2. To develop the creative and technical skills to communicate the ideas.
3. To acquaint with the techniques and methods used for design in fabric and apparel.

<b>CONTENT</b>	<b>PERIODS</b>
<b>UNIT I: Elements of design (Ch 1 Lietchy)</b>	<b>8</b>
<ul style="list-style-type: none"><li>• Colour<ul style="list-style-type: none"><li>- Psychology of colour- cultural and religious connotations</li><li>- Dimensions of colour</li><li>- Colour harmonies</li><li>- Stages of colour application in fabric processing and its effect on design</li></ul></li><li>• Texture<ul style="list-style-type: none"><li>- Texture harmonies</li></ul></li><li>• Lines<ul style="list-style-type: none"><li>- Aspects and effects of lines -curved, structural, visual, illusion</li></ul></li><li>• Shape<ul style="list-style-type: none"><li>- Basic types- geometric, simple, natural, stylized and abstract</li></ul></li></ul>	
<b>UNIT II: Principles of Design (Ch 1 Lietchy)</b>	<b>4</b>
<ul style="list-style-type: none"><li>• Proportion, balance, rhythm, emphasis and unity</li></ul>	
<b>UNIT III: Handling of different fabrics (Ch 2 Carr and Latham)</b>	<b>8</b>
<ul style="list-style-type: none"><li>• Stripes, checks, plaids, unidirectional, bold prints, sheers, thick, pile, lace and slippery fabrics</li></ul>	
<b>UNIT IV: Development of dresses without waist line seams (Ch 18 Armstrong)</b>	<b>20</b>
<ul style="list-style-type: none"><li>• Torso foundation</li><li>• Princess-line foundation</li><li>• Panel dress foundation</li><li>• Empire foundation</li><li>• Tent foundation</li></ul>	
<b>UNIT V: Design in textiles and apparel (Ch 18, 19 Armstrong)</b>	<b>8</b>
<ul style="list-style-type: none"><li>• Weaving, finishing, dyeing, printing, painting, embroidery, embellishments and construction methods for home and apparel with special reference to maternity, lactation and person's with disability</li></ul>	

## RECOMMENDED READINGS

- Armstrong, H.J. (2009), Pattern Making for Fashion Design, Harper Collins Publishers, INC, New York.
- Carr H., Latham B. (1994), The Technology of Clothing Manufacture, 2<sup>nd</sup> edition, Blackwell Sc.
- Lietchy G., Fitting and Pattern Alteration: A Multi-method Approach, Fairchild Publication, New York.

## DESIGN: CONCEPTS AND APPLICATION

## PRACTICAL

**Paper No.** : HSHP-648  
**Maximum Marks** : 50  
**Credits** : 2  
**Teaching Periods** : 4/Week  
**Teaching Load** : 12 Practicals/ Semester (4 periods each)

### CONTENTS

### PRACTICALS

- |  |   |
|--|---|
| 1. -Drawing tools and equipment<br>-Drawing forms<br>a) Dot to form<br>b) Geometric, simplified, naturalized, stylized, abstract | 1 |
| 2. Design development by placements  | 2 |
| 3. Colour study – colour wheel, value, intensity, harmonies  | 1 |
| 4. Design development for fabric using any two techniques for apparel and home textiles  | 4 |
| 5. Project: Designing and construction of dress for self   | 4 |

## JOURNALISM- THEORY AND PRACTICE

### THEORY

**Paper No** : HSHT- 658  
**Max. Marks** : 100  
**Credits** : 4  
**Teaching Periods** : 4 Theory + 1 Interactive period / week  
**Teaching Load** : 48 Theory Periods + 12 Interactive periods / semester

### OBJECTIVES

1. To understand the different aspects and dimensions of journalism.
2. To understand the process, functions and techniques of journalism with reference to print, electronic and other modern media.
3. To evaluate the relevance, potential and use of various media as tools of journalism.

### CONTENT

### PERIODS

- |  |           |
|--|-----------|
| <b>Unit I: Introduction to Journalism (Ch 2 Aggarwal and Gupta)</b>  | <b>12</b> |
| <ul style="list-style-type: none"><li>• Definition, nature and scope of journalism</li><li>• History and types of journalism</li><li>• Role and responsibilities of journalists</li><li>• Media laws and ethics</li><li>• Media organizations – government and corporate</li></ul> |           |
| <b>Unit II: News Reporting (Ch 1 Evans)</b>  | <b>10</b> |
| <ul style="list-style-type: none"><li>• Definition of news, ingredients and qualities of news</li><li>• News values</li></ul>  |           |

- Types of news reports
- News agencies- national and international
- News reporting and editing

**Unit III: Types of reporting (Ch 2 Harris and Johnson) 10**

- Types of reporting
- Issues in development reporting
- Tasks and skills of a development reporter

**Unit IV: Journalistic skills for various media (Ch 2, 3 Aggarwal and Gupta / Ch 14, 15 Pannu and Tomar) 16**

- Print journalism- fundamentals of good writing, inverted pyramid approach, writing editorials and features
- Television journalism- writing for television news, features and panel discussions
- Radio journalism- writing for radio news and features
- Convergence journalism

**RECOMMENDED READINGS**

- Aggarwal, B.V. and Gupta, V.S. (2002) 'Handbook of Journalism and Mass Communication', Concept Publishing Company, New Delhi.
- Evans, H (1974). News Headlines: New Delhi: N.C. for T. J.,
- Harris L. J. & Johnson S (1977). The Complete Reporter: New York: MacMillan Publication
- Pannu, Parveen and Tomar Yuki Azaad (2010) 'ICT4D Using Information Communication Technologies for Development' IK International Publishing House, New Delhi.

**JOURNALISM- THEORY AND PRACTICE**

**PRACTICAL**

**Paper No : HSHP-658**  
**Maximum Marks : 50**  
**Credits : 2**  
**Teaching Periods : 4 /week**  
**Teaching Load : 12 Practicals/ Semester (4 periods each)**

**OBJECTIVES**

1. To develop skills in preparation and use of various media in journalism.
2. To develop skills for scripting and production of selected media.

**CONTENT**

**PRACTICALS**

- Content writing and editing for print, television and radio 6
- Scripting and production of selected media 6

**NUTRITIONAL BIOCHEMISTRY-II**

**THEORY**

**Paper No. : HSHT-619**  
**Maximum Marks : 100**  
**Credits : 4**

**Teaching Periods** : 4 Theory + 1 Interactive Period/ week  
**Teaching Load** : 48 Theory Periods + 12 Interactive Periods/ semester

## OBJECTIVES

This course will enable the students to:

1. Have an advanced understanding of the principles of biochemistry (as applicable to human nutrition).
2. Understand the biological processes and systems as applicable to nutrition.
3. Apply the knowledge acquired to human nutrition and dietetics.

<b>CONTENT</b>	<b>PERIODS</b>
<b>Unit I: Enzymes (Ch 6 Lehninger et al)</b> <ul style="list-style-type: none"><li>• Enzyme Kinetics</li></ul>	<b>3</b>
<b>Unit II: Oxidative Phosphorylation (Ch 13 Murray et al)</b> <ul style="list-style-type: none"><li>• Electron –Transfer Reactions in Mitochondria</li><li>• ATP Synthesis</li><li>• Regulation of Oxidative Phosphorylation</li></ul>	<b>9</b>
<b>Unit III: Intermediary Metabolism (Ch 14, 15, 16, 17, 18 Lehninger et al)</b> <ul style="list-style-type: none"><li>• Carbohydrates-glycolysis, citric acid cycle, gluconeogenesis, glycogenesis, glycogenolysis, blood sugar regulation</li><li>• Lipids-<math>\beta</math>-oxidation, synthesis and utilization of ketone bodies, ketosis, and fatty liver</li><li>• Proteins-Amino acid metabolism, Urea cycle</li></ul>	<b>30</b>
<b>Unit IV: Molecular Biology (Ch 37 Murray et al / Ch 27 Lehninger et al)</b> <ul style="list-style-type: none"><li>• Genetic code and protein biosynthesis</li><li>• Introduction to nutrigenomics</li></ul>	<b>6</b>

## RECOMMENDED READINGS

- Lehninger A L, Nelson D L and Cox M M (2009). Principles of Biochemistry, 6<sup>th</sup> Ed. CBS Publishers and Distributors.
- Murray R.K, Granner D K, Mayes P A and Rodwell V W (2009). Harper's Biochemistry, 28<sup>th</sup> ed. Lange Medical Book.

## NUTRITIONAL BIOCHEMISTRY-II PRACTICAL

**Paper No.** : HSHP-619  
**Maximum Marks** : 50  
**Credits** : 2  
**Teaching Periods** : 4 / week  
**Teaching Load** : 12 Practicals/ semester (4 periods each)

## OBJECTIVES

This course will enable the students to:

1. Have an understanding of chromatography and its use in qualitative analysis.
2. Get an orientation to pH and buffers.
3. Learn estimation of vitamins and minerals.

## CONTENT

## PRACTICALS

<b>1. pH and buffers</b>	<b>4</b>
• Introduction to pH meter and preparation of buffer solutions	
<b>2. Lipids</b>	<b>2</b>
• Estimation of acid value of fat	
<b>3. Minerals</b>	<b>2</b>
• Estimation of calcium by titrimetry	
<b>4. Abnormal constituents of urine</b>	<b>2</b>
• Glucose	
• Ketone bodies	
• Blood	
• Albumin	
• Bile salts and bile acids	
<b>5. Blood</b>	<b>2</b>
• Estimation of haemoglobin	

## RECOMMENDED READINGS

- Hawk, Oser and Summerson (1955). Practical Physiological Chemistry, Mc-Graw Hill, New York.
- Sawhney, SK and Randhir Singh (2009). Introductory Practical Biochemistry, Narosa Publishing House Pvt. Ltd., New Delhi.
- Sundararaj Pushpa and Siddhu Anupa (2006). Qualitative Tests and Quantitative Procedures in Biochemistry, Elite Publishing House Pvt. Ltd., Wheeler, New Delhi.

## TOTAL QUALITY MANAGEMENT

### THEORY

<b>Paper No.</b>	<b>: HSHT-629</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

## OBJECTIVE

1. To understand the Total Quality Management concept and principles and the various tools available to achieve Total Quality Management.
2. To understand the statistical approach for quality control.
3. To create an awareness about the ISO and QS certification process and its need for the industries.

## CONTENT

## PERIODS

<b>Unit I: Introduction to TQM (Ch 1 Evans / Ch 1 Dale)</b>	<b>14</b>
• Definition of Quality	
• Dimensions of Quality	
• Quality Planning	

- Basic concepts of Total Quality Management
- Historical Review
- Principles of TQM
- Quality Council, Quality Statements, Strategic Planning, Deming Philosophy
- Barriers to TQM Implementation.

**Unit II: TQM Principles in Human Resource Management (Ch 3, 4, 5 Dale / Ch 14 Oakland) 14**

- Customer satisfaction – Customer Perception of Quality, Customer Complaints, Service Quality, Customer Retention
- Employee Involvement – Motivation, Empowerment, Teams, Recognition and Reward, Performance Appraisal, Benefits
- Continuous Process Improvement – Juran Trilogy, PDSA Cycle, 5S, Kaizen

**Unit-III: TQM Tools in Product Designing (Ch 9, 6 Oakland / Ch 3 Evans) 12**

- Benchmarking – Reasons to Benchmark, Benchmarking Process
- Quality Function Deployment (QFD) – House of Quality, QFD Process, Benefits, Taguchi Quality Loss Function
- Total Productive Maintenance (TPM) – Concept, Improvement Need

**Unit IV: TQM and Culture (Ch 15 Oakland / Ch 6 Evans) 08**

- Organisational change management through TQM and its relationship with culture, morale.
- Resistance to change and barriers to TQM.

**RECOMMENDED READINGS**

- Dale H.Besterfield, et al., 2003, Total Quality Management, Pearson Education, Inc. (Indian reprint 2004). ISBN 81-297-0260-6.
- James R.Evans & William M.Lindsay, 2002, The Management and Control of Quality, (5th Edition), South-Western (Thomson Learning), (ISBN 0-324-06680-5).
- Oakland.J.S., 1989, Total Quality Management, Butterworth Heinemann Ltd., Oxford.

**TOTAL QUALITY MANAGEMENT**

**PRACTICAL**

**Paper Number : HSHP-629**  
**Maximum Marks : 50**  
**Credits : 2**  
**Teaching Pds/Wk : 4 /Week**  
**Teaching Load/Sem : 12 Practicals /Semester (4 Periods each)**

**OBJECTIVES**

1. To develop constancy of purpose for improvement of products and services.

2. To provide insight into professional practice in TQM.
3. To develop skills in doing the right things, right the first time, every time.

<b>CONTENT</b>	<b>PRACTICALS</b>
• Presentations on business excellence models to assess organization's performance.	1
• Course project on quality management methods -analyzing and solving problems of organization.	2
• Case profiles of total quality management gurus.	3
• Study and development of Bench marking Process.	3
• Development of tools for feedback.	2
• Study and development of QFD process.	1

## **CHILDHOOD DISABILITY**

### **THEORY**

<b>Paper No.</b>	<b>:</b>	<b>HSHT-639</b>
<b>Max. Marks</b>	<b>:</b>	<b>100</b>
<b>Credits</b>	<b>:</b>	<b>4</b>
<b>Teaching Periods</b>	<b>:</b>	<b>4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>:</b>	<b>48 Theory Periods + 12 Interactive periods / semester</b>

### **OBJECTIVES**

1. To understand the meaning of disability
2. To become aware of major types of disability
3. To study approaches to inclusion of children with disability.

### **CONTENTS**

### **PERIODS**

<b>Unit I: Understanding Disability and Inclusion (Ch 1, 13 Heward / Ch 3 Mangal / Ch 1 Barnes)</b>	<b>10</b>
<ul style="list-style-type: none"> <li>· Defining and understanding disability</li> <li>· Perspectives on disability: Individual and social</li> <li>· Attitudes towards disability</li> <li>· Overview of practices and provisioning related to addressing disability in India</li> </ul>	
<b>Unit II: Types of Disability and Prevalence (Ch 6, 7, 10, 11, 12 Heward / Ch 5, 6, 7, 8, 12 Mangal)</b>	<b>20</b>
<ul style="list-style-type: none"> <li>· Demography</li> <li>· Identification, Assessment and Etiology with reference to:</li> </ul>	

- Physical disabilities
- Intellectual disability,
- Visual and auditory disabilities
- Learning disability
- Autism
- Prevention, therapy, education and management

**UNIT III: Inclusion of children with disability (Ch 2 Heward) 10**

- Disability and family
- Education and schooling
- Disability and society

**UNIT IV: Provisions and Services in society (Disability Manual) 8**

- Policy and laws
- Provisions/services for children and families
- Institutional care
- Medical support and rehabilitation for disabilities

**RECOMMENDED READINGS**

- Barnes, C., Mercer, G., Shakespeare, T. (2005). Exploring disability: A sociological introduction. Cambridge, UK: Polity Press.
- Heward, W.L. (2000). Exceptional children: An introduction to special education (6<sup>th</sup> edition). New Jersey: Prentice – Hall Inc.
- Mangal, S.K. (2007). Educating exceptional children: An introduction to special education. New Delhi: Prentice-Hall of India.
- National Human Rights Commission (2005). Disability Manual. New Delhi: NHRC.

**CHILDHOOD DISABILITY**

**PRACTICAL**

**Paper No. : HSHP-639**  
**Maximum Marks : 50**  
**Credits : 2**  
**Teaching periods : 4/Week**  
**Teaching load : 12 Practicals/Semester (4 Periods each)**

**CONTENT**

**PRACTICALS**

- 1. Visit 4**  
 Government and private institutions/organizations  
 (CGC, schools, NGOs, hospitals)  
 -Interview selected teachers, professionals

-Observe the context	
-Documentation and recording	
<b>2. Interaction</b>	<b>3</b>
-Observing children in different situations	
-Interaction with peers and family members	
<b>3. Placement</b>	<b>2</b>
-Observe the setting	
- Study children’s developmental records	
-Documentation and recording	
<b>4. Planning</b>	<b>1</b>
- Programme planning	
<b>5. Media</b>	<b>2</b>
Exploring sources of information about children and their families using print and audio-visual media	

## **MARKETING AND MERCHANDISING**

### **THEORY**

<b>Paper No.</b>	<b>: HSHT-649</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

### **OBJECTIVES**

1. To understand the dynamics of fashion market environment.
2. To provide knowledge of the marketing mix of the garment industry

### **CONTENTS**

### **PERIODS**

<b>UNIT I: Fashion marketing environment (Ch 1 Kotler)</b>	<b>4</b>
• Micro marketing environment	
• Macro marketing environment	
<b>UNIT II: Consumer buying behaviour (Ch 6 Kotler)</b>	<b>4</b>
• Factors affecting consumer behavior	
• Purchase decision making process	
<b>UNIT III: Target marketing (Ch 9 Kotler)</b>	<b>5</b>
• Market segmentation- Rationale, bases and strategy	
• Positioning and perceptual mapping	
<b>UNIT IV: Product and pricing (Ch 17 Berman / Ch 15 Kotler)</b>	<b>5</b>

- Product classification and product lifecycle
- Pricing objectives
- Methods of setting price
- Pricing strategies

**UNIT V: Merchandising management process (Ch 14, 15, 16 Berman) 8**

- The buying organization
- Merchandise category
- GMROI
- Assortment plan
- Setting inventory and product availability levels

**UNIT VI: Fashion promotion (Ch 19 Berman) 8**

- AIDA model
- Promotion mix- advertising, personal selling, sales promotion and publicity
- Developing and communicating a brief
- Fashion shows and fairs
- Importance of branding

**UNIT VII: Visual merchandising (Ch 13 Berman) 8**

- Store layout
- Feature areas and fixtures
- Signage and logo

**UNIT VIII: Global fashion industry (Ch 10, 11, 12 Kotler) 6**

- Overview of international trade in textiles and garments
- Textile policy of India
- Profile of exporters and importers
- Role of low wage countries
- Textile and garment industry of India

**RECOMMENDED READINGS**

- Berman and Evans, Retail Management Xth edition
- Kotler P., Marketing Management, XIIIth edition

**MARKETING AND MERCHANDISING**

**PRACTICAL**

**Paper No. : HSHP-649**  
**Maximum Marks : 50**  
**Credits : 2**  
**Practical Periods : 4/Week**  
**Practical Load : 12 Practicals/ Semester (4 periods each)**

## CONTENTS

## PRACTICALS

1. Case study of various brands or labels.	2
2. Analysis of various kinds of store layouts/displays.	1
3. Developing an advertising brief or positioning strategy.	2
4. Planning a window display.	2
5. Advertisements for different media (print, TV, radio, internet)	2
6. Designing promotional materials:	2
- Catalogue- accessories, children's, men's, women's	
- Broachers	
- Hand-outs	
- Leaflets	
- Shopping/carry bags	
- Labels	
- Shopping tickets	
- Visiting cards	
7. Preparing an assortment plan for a store	1

## ADVERTISING AND PUBLIC RELATIONS

### THEORY

<b>Paper No</b>	<b>: HSH-659</b>
<b>Max. Marks</b>	<b>: 100</b>
<b>Credits</b>	<b>: 4</b>
<b>Teaching Periods</b>	<b>: 4 Theory + 1 Interactive period / week</b>
<b>Teaching Load</b>	<b>: 48 Theory Periods + 12 Interactive periods / semester</b>

### OBJECTIVES

1. To develop understanding of the theory and processes of persuasive communication
2. To provide a perspective on the discipline of public relations.
3. To familiarize and equip with a range of communication skills related to advertising and public relations.

### CONTENT

### PERIODS

#### Unit I: Advertising (Ch 1, 2, 3 Jethwani and Verma)

14

- 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 (Ch 2 Agarwal and Gupta)

10

- Advertising agencies: Organizational structure and functions
- Audience segmentation and advertising

- Media planning and advertising

**Unit III: Public Relations (PR) (Ch 2, 3 Cutlip)**

**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 (Ch 6 Cutlip)**

**14**

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

**RECOMMENDED READINGS**

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

**ADVERTISING AND PUBLIC RELATIONS  
PRACTICAL**

**Paper No** : HSHP-659  
**Maximum Marks** : 50  
**Credits** : 2  
**Teaching Periods** : 4/week  
**Teaching Load** : 12 Practicals/ Semester (4 periods each)

**OBJECTIVES**

3. To develop an understanding of the fields of advertising and public relations
4. To enable the students to use advertising as a tool for promotion of products, services and ideas.
5. To develop effective skills in public relations for organization's image building.

**CONTENT**

**PRACTICALS**

- |  |          |
|--|----------|
| • Analyzing advertisements in different media.                   | <b>3</b> |
| • Developing advertisements for print media                      | <b>5</b> |
| • Analyzing and practicing public relations tools and techniques | <b>4</b> |