

B.Sc. HOME SCIENCE

As per NEP 2020

INTRODUCTION

Home Science is a single discipline which equally empowers the individuals towards self reliance as well as academic enrichment. Its interdisciplinary nature makes it a unique discipline which has countless entrepreneurial avenues to its graduates and at the same time it helps them to develop as a professional contributing in national development. The students are encouraged to develop a scientific temper. All the five windows of opportunity that Home Science offers for its recipients are i.e. Food and Nutrition, Human Development and family Studies, Family Resource Management, Development Communication and Extension and Fabric and Apparel Sciences. In these course, the students learn the fundamental principles and foundations of all the five areas. They are expected to internalize the principle of a Home Scientist, that is, to give back to the community from which they draw, for sustainable development. This is a major contribution of Home Science in both developed and developing societies.

The objectives of the present B.Sc. Home Science Program course:

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

1. B.Sc. (Home Science) comprises of a total of 03 Groups. Viz
 - Group I- Foods and Nutrition
 - Group II- Human Development & Extension Education
 - Group III- Textiles and Clothing & Family Resource Management
2. Students taking admission in B.Sc. (Home Science) will have to opt for any 02 (out of all 03 groups) Groups as Major Subjects. The remaining 01 Group as Minor Subject.

PROPOSED SYLLABUS for B.Sc. Home Science

Group I- Foods and Nutrition

	Major 1 @ 4 credits	Major 2 @ 4 credits	Minor 1 @ 4 credits	@ 4 credits
Semester -1	P1 -Fundamentals of Food P2 - Human Physiology	P1 P2	P1 Fundamentals of Food	CC1
Semester -2	P3 - Nutritional Biochemistry-I P4 - Practical	P3 P4	P2 Nutritional Biochemistry	VC1
Semester -3	P5 - Nutrition For Family P6 - Practical	P5 P6	P3 - Nutrition For Family	
Semester -4	P7 -Nutritional Biochemistry-II P8 - Food Microbiology	P7 P8	P4 Food Microbiology	VC2
Semester -5	P9 - - Food Science P10 - Practical P11x - Therapeutic Nutrition OR P11y - Food Processing -	P9 P10		Internship

Semester -6	P12 Community Nutrition P13 -Public Health & Hygiene P14x -Food Service Management OR P14y -Bakery & Confectionery	P12 P13		Minor Project
Semester -7	P15 -Functional Foods P16 -Health & Nutrition Programmes P17 -Food Quality Analysis P18 -Maternal & Child Nutrition P19x -Food Product Development OR P19y -Entrepreneurship Management			Research Methodology
Semester -8	Major Project (24 Credits)			

Group II- Human Development & Extension Education

	Major 1 @ 4 credits	Major 2 @ 4 credits	Minor 1 @ 4 credits	@ 4 credits
Semester -1	P1 -Fundamentals of Extension Education P2 - Fundamentals of Human Development	P1 P2	P1 - Fundamentals of Extension Education	CC1
Semester -2	P3 - Life Span Development -1 P4 -Practical	P3 P4	P2 -Life Span Development 1	VC1
Semester -3	P5 Extension Communication P6 - Practical	P5 P6	P3 - Extension Communication	CC2
Semester	P7 -Life Span	P7	P4 - Life Span	VC2

-4	Development-2 P8- Extension Programs and Project Planning	P8	Development-2	
Semester -5	P9- Early Childhood Care & Education P10- Practical P11x-Methods and Materials for Children Or P11y-Schemes and Programs for Community Welfare	P9 P10		Internship
Semester -6	P12-NGO Management P13-Community Development P14x- Theories of Human Development OR P14y-Gender & Development	P11 P12		Minor Project
Semester -7	<u>Human Development</u> P15- Adolescents' Relations and Well-Being P16-Children with Special Needs P17- Interpersonal Relationships and Family Dynamics P18- Adulthood and Aging P19x- Entrepreneurship Management			Research Methodology

	OR P19y-Child Rights and Gender Empowerment <u>Extension Education & Communication</u> P15-Non Formal Education P16- Communication for Development P17-Communication Systems and Social Change P18 Training For Development P19x- Entrepreneurship Management OR P19y-Extension Management			
Semester -8	Major Project (24 Credits)			

Group III- Textiles and Clothing & Family Resource Management

	Major 1 @ 4 credits	Major 2 @ 4 credits	Minor 1 @ 4 credits	@ 4 credits
Semester -1	P1- Fundamentals of Textiles P2- Fundamentals of Family Resource Management	P1 P2	P1- Fundamentals of Textiles	CC1
Semester -2	P3- Art & Design P4-Practical	P3 P4	P2 -Art & Design	VC1

Semester -3	P5- Basics of Clothing Construction P6- Practical	P5 P6	P3 -Basics of Clothing Construction	CC2
Semester -4	P7-Household Equipments P8-Fabric Construction and Finishing	P7 P8	P4- Household Equipments	VC2
Semester -5	P9- Advance Garment Construction P10- Practical P11x-Residential Space Design and Furnishing OR P11y-Value Education	P9 P10		Internship
Semester -6	P12-Textile Science P13-Traditional Textiles of India P14x- Techniques of Work Simplification OR P14y-Costumes of India	P11 P12		Minor Project
Semester -7	<u>Textiles & Clothing</u> P15- Apparel Designing P16-Basics of Textiles Quality Control P17- Creative Applied Arts P18- Technical Textiles P19x- Entrepreneurship Management OR			Research Methodology

	P19y-Fashion Marketing and Merchandising OR <u>Family Resource Management</u> P15 Planning and Designing Interior Space P16- Ergonomics P17-Personal Finance and Consumer Studies P18- House Keeping P19x- Entrepreneurship Management OR P19y-Garden and Landscape Designing			
Semester -8	Major Project (24 Credits)			

PROGRAM OUTCOMES:

- Understand and appreciate the role of interdisciplinary sciences in the development and well- being of individuals, families and communities
- Understand the sciences and technologies that enhance the quality of life of people
- Acquire professional and entrepreneurial skills for economic empowerment of self in particular, and community in general

- Develop professional skills in food, nutrition, textiles, housing, product making, extension communication and human development .
- Take science from the laboratory to the people
 - Participate as knowledge disseminator for wholesome development of the society

PROGRAM SPECIFIC OUTCOME-

1. Developing an understanding about nutrient metabolism and human physiology
2. Developing basic skills for independently planning menus, dietary counselling and resource mobilization
3. Evaluating and applying principles of art and design
4. Motivating students for the welfare of community and empowering them towards national development through organizing extension and nutrition outreach activities for underprivileged section of society.
5. Understanding fibres, textile and garment construction

B.Sc. HOME SCIENCE

GROUP I- FOODS AND NUTRITION

SEMESTER -1

P 1- FUNDAMENTALS OF FOOD

Course outcome

- i. Comprehend relationship between food, nutrition and health.
- ii. Understand the functions of food, basic concepts of food groups and balanced diet.
- iii. Understand the selection, nutritional contribution the commonly consumed foods.
- iv. Develop understanding about the methods of preparing food.
- v. Understanding the various food standards and regulations related to food

Unit I

Basic concepts in food and nutrition

- Concept of nutrition and health,
- relationship between food, nutrition and health
- Functions of food-Physiological, psychological and social

Unit II

Food Groups: classification based on: Source, Functions

Selection, nutritional contribution of the following food groups:

- Cereals
- Pulses
- Fruits and vegetables
- Milk & milk products

- Eggs
- Meat, poultry and fish
- Fats and Oils

Unit III

Methods of Cooking and Preventing Nutrient Losses

- Dry, moist, frying and microwave cooking
- Advantages, disadvantages and the effect of various methods of cooking on nutrients Minimising nutrient losses
- Methods of improving nutritive value

Unit IV

Food adulteration:

- Definition, common adulterants in food and their effects on health
- Food laws and standard

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.
- 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.
- Bamji MS, Krishnaswamy K, Brahmam GNV (2009). *Textbook of Human Nutrition*, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
- Srilakshmi (2007). *Food Science*, 4th Edition. New Age International Ltd.
- Wardlaw and Insel MG, Insel PM (2004). *Perspectives in Nutrition*, Sixth Edition. Mosby.
- Chadha R and Mathur P (eds). *Nutrition: A Lifecycle Approach*. Orient Blackswan, Delhi. 2015

P2- HUMAN PHYSIOLOGY

Course Outcome

- Gain the basic knowledge of human anatomy and physiology.

- Define the main structures composing human body.
- Explains structure and functions of cells, tissues and organs ,systems of the human body
- Relates structure and functions of tissue.
- Provides excellent preparation for careers in the health professions and/or biomedical research.

Unit I

Introduction to Human body:

Organs, tissue and cell, cell structure, cellular organelles and their functions.

Blood and Lymphatic System:

- Blood - Composition and functions.
- Plasma Protein -Composition and functions.
- Lymphatic system structure and function
- Structure and functions of lymph node and lymphatic ducts

Unit II

Cardiovascular system:

- Structure of heart, blood vessels (systemic, pulmonary, and portal)
- Cardiac cycle, cardiac output (Definition and factors affecting)
- Blood pressure (Definition and factors affecting)

Respiratory Physiology: general overview of the respiratory passage, structure and functions. Mechanism of internal and external respiration.

- Structure of lungs and its functions

Digestive system:

- Overview of the Gastrointestinal Tract, organization and functions.
- Structure and functions of: Stomach, Liver, Gallbladder, Pancreas

Unit III

Excretory System:

- Structure and functions of kidney and nephrons.

Endocrine System:

- Overview of endocrine system, feedback mechanism/cascade. Structure of main endocrine glands and their functions: Pituitary, Thyroid, Parathyroid, Adrenal Glands, sex and Pancreatic hormones

Unit IV

Reproductive system:

- Structure and function of uterus and ovaries
- Physiology of menstruation and menopause

Nervous System

- Overview of organization of nervous system, different types, structure of neurons and nerve impulse transduction

RECOMMENDED READINGS

- Ganong WF (2014). Review of Medical Physiology, 24th ed. McGraw Hill.
- Ross and Wilson (2013). Anatomy and Physiology in health and illness, 11th ed. Medical Division of Longman Group Ltd.
- Guyton, A.C. and Hall, J.E.(2000)Textbook of Medical Physiology.10th ed. India: Harcourt Asia
- Das, A.(2004)Medical Physiology-Vol. I and II 3rd Books and Allied (P) Ltd.
- Tortora, G.J and Grabowski, S.R.(2000)Principles of Anatomy and Physiology.9th ed. John Wiley and Sons.Inc.
- Chaudhari S K.(2000) Concise Medical Physiology.3rd Edition. Central.
- Mahapatra, A.B.S.(2003):Essentials of Medical Physiology.3rd Edition. Current Books International.

SEMESTER-2

P3- Nutritional Biochemistry-I

Course outcome

- To study the bio-molecules present in biological system of energy metabolism and its nutritional aspects
- To study the chemical/biochemical properties of carbohydrates, lipids, and proteins

- To study the functional role of proteins as enzymes and biocatalysts.
- To examine the functional role of vitamins and minerals.

UNIT 1

Introduction to Biochemistry

- Definition, objectives, scope and inter-relationship between biochemistry and other biological sciences

Carbohydrates

- Definitions, classification, structure and general properties of:
- Monosaccharides-glucose, fructose, galactose, ribose
- Disaccharides – maltose, lactose, sucrose
- Polysaccharides – dextrin, starch, glycogen

UNIT 2

Lipids

- Definitions and classification of lipids
- Types and properties of fatty acids
- Composition and properties of fats
- Significance of acid value, iodine value and saponification value

Proteins

- Definition, classification, structure and properties of amino acids
- Essential and non-essential amino acids
- Definition, classification, elementary knowledge of structure of proteins

UNIT 3

Enzymes

- Introduction to Enzymes, Classification and properties of Enzymes, Co-enzymes, Enzyme Inhibition

- Water, electrolyte and acid base balance

UNIT 4

Vitamins - Structure and biochemical role:

- Fat soluble vitamins – A, D
- Water soluble vitamins – B1, B2, niacin, pyridoxine, folic acid, B12 and C

Minerals

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

RECOMMENDED READINGS

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

P4-PRACTICAL

- Tests of mono, di and polysaccharides and their identification in unknown mixtures
- Qualitative Tests for reducing and nonreducing sugars in foods
- Determination of acid value, saponification and iodine number of natural fats and oils
- Reactions of amino acids and their identification in unknown mixtures
- Estimation of ascorbic acid content of foods by titrimetric method
- Identification of different types of tissues (permanent slides)
- Identification of different types of blood cells -slide preparation
- Monitoring of heart beat, pulse rate and blood pressure

SEMESTER-3

P5-: NUTRITION FOR FAMILY

COURSE OUTCOME:

1. Understanding the basic concept of balance diet, principles of meal planning, food pyramid.
2. Acquire knowledge about the nutritional needs of an individual through the life cycle.
3. Gain knowledge of nutrition consideration, guidelines, food selection for different age groups, activity levels and income groups.
4. Competent in calculating nutritive value of food product.
5. Able to provide balanced meal to different age groups and physiological conditions.

UNIT 1

Concept of balanced diet

Basic concepts meal planning: Factors affecting meal planning and food related behavior.

Dietary guidelines for Indians

food pyramid

UNIT II

Nutrition during infancy, childhood

Growth standards, nutritional guidelines & nutritional concerns and selection of food for Infants & Preschool children

Growth standards, nutritional guidelines & nutritional concerns and selection of food for School children & Adolescents

UNIT III

Nutrition during the adult years: nutrition concern for age,sex and different activities,food selection,

Physiological changes, nutritional guidelines, nutritional concerns and selection of food during old age

UNIT IV

Physiological changes,nutritional guidelines,nutritional concerns and selection of food
Nutrition during lactation: nutritional needs, concern and food selection.

RECOMMENDED READINGS

- Seth V and Singh K (2006). *Diet Planning through the Life Cycle: Part 1 Normal Nutrition. A Practical Manual*. Elite Publishing House Pvt. Ltd. New Delhi.
- Gopalan C, Rama Sastri BV, Balasubramanian SC (1989) *Nutritive Value of Indian Foods*. National Institute of Nutrition, ICMR, Hyderabad.
- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). *Textbook of Nutrition and Dietetics*. Phoenix Publishing House Pvt. Ltd.
- Wardlaw GM, Hampi JS, DiSilvestro RA (2004). *Perspectives in Nutrition*, 6th edition. McGraw Hill.
- ICMR (2011) *Dietary Guidelines for Indians*. Published by National Institute of Nutrition, Hyderabad.
- ICMR (2010) *Recommended Dietary Allowances for Indians* .Published by National Institute of Nutrition, Hyderabad.
- Chadha R and Mathur P eds. *Nutrition : A Lifecycle Approach*. Orient Blackswan, New Delhi. 2015.

P6- PRACTICAL

Weights and measures ;preparing market order and table setting

Introduction to meal planning

-Use of Food Composition Table

-Use of food exchange list

Planning and preparation of diets for

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

Elderly

- Identification and characteristics of micro organisms: bacteria, virus, protozoa, fungi
- Identification of bread mould
- Identification of food spoilage causing micro organisms
- Gram staining: Gram negative and gram positive bacteria

SEMESTER-4

P7-NUTRITIONAL BIOCHEMISTRY-II

Course outcome

- To review the biological system of energy metabolism
- To study the chemical/biochemical properties and metabolic pathways of carbohydrates, lipids, and proteins.
- To examine the regulatory mechanisms of macronutrient metabolism and associated signaling pathways.
- To understand the research techniques used in basic biochemistry and nutritional biochemistry research.
- To evaluate and criticize the experimental approaches and scientific information presented in the research articles related to nutritional biochemistry.

Unit I

1. Carbohydrate metabolism, glycolysis, gluconeogenesis, glycogenesis, glycogenolysis, blood sugar regulation
2. Inborn errors of metabolism

Unit 2

3. Oxidation and biosynthesis of fatty acids
4. Ketone bodies and ketosis & significance of cholesterol
5. Protein metabolism , Transamination, deamination, carboxylation, Urea cycle

Unit 3

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

- Water soluble vitamins B & C
- Fat soluble vitamins-A, D, E and K

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

Minerals – Calcium, Iron, Phosphorus, Iodine, Selenium & Zinc

UNIT4

8. Energy in human nutrition – energy balance, assessment of energy requirement,
9. Factors affecting energy requirements, BMR, PAL, SDA
10. Proteins quality: methods of assessment, Factors affecting protein bioavailability.

RECOMMENDED READINGS

1. Guthrie A.H.- (1986) : Introductory Nutrition 6th Ed. The C.V. Mosby Company.
2. Robinson C.H., Lawin, MR, Chenoweth, W.L and Garwick A.E.- (1986) : Normal and therapeutic Nutrition, 17th ED. MacMillan Publishing Company.
3. Swaminathan M.-(1985) Essentials of food and nutrition Vol. I & II, Ganesh & Co. Madra.

4. Gopalan C. – et. al., (1991) Nutrition Value of Indian Foods, Indian Council of Medical Research, (1989).
5. Nutrition Requirements and Recommended Dietary Allowance for Indian, New Delhi.
6. FAO/WHO/UNO- Technical Report-Series 724 (1985) Energy and Protein Requirement Geneva.
7. WHO – Technical Report Series for Different Nutrition

P8-:FOOD MICROBIOLOGY

Course Outcome:

- to provide knowledge of microorganisms associated with foods and their origin and role;
- Knowledge of the factors that determine the presence, growth and survival of microorganisms in food
- ; knowledge of the main microbial groups involved in different food types and their prevention.

Unit I

- Introduction to microbiology and its relevance to everyday life,
- general morphology of micro-organisms- general characteristics of bacteria, fungi, virus, protozoa and algae

Unit II

- Growth of micro-organism- growth curve
- effect of environmental factors on growth of microorganism, pH, water activities, oxygen availability, temperature
- Growth media, types and uses.
- Control of micro-organisms- Physical and chemical methods

Unit III

- Microbial contamination and spoilage of different kinds of foods and their prevention:
 - Cereal and cereal products

- Vegetables and fruits
- Meat and fish
- Eggs and poultry
- Milk
- Canned foods

Unit IV

- Food preservation: Importance, principles and methods- home and commercial: use of high and low temperature, pasteurization, dehydration, freezing, irradiation and use of preservatives.

RECOMMENDED READINGS

- Food Microbiology by Stanier
- Microbiology by Frazier
- Textbook of microbiology by Pelezar

SEMESTER-5

P9- FOOD SCIENCE

Course Outcome

- Understand the basic concept of food science and its multidisciplinary nature.
- Acquire brief and coherent knowledge of food chemistry and its application in cookery.
- Gain knowledge of nutritional composition of various food commodities, its wise selection and storage guidelines.
- Get acquainted with the different

UNIT I

1. Introduction to food science and its multidisciplinary approach
2. **Cereals**
 - a) Functional properties: gelatinization, dextrinization & factors affecting the same
 - b) Effect of processing on nutritive value of cereals

UNIT-II

3. Fats and oils-

- A) role of fat in food preparation. Shortenings, Emulsifying agents, Fat substitutes
- B) Deterioration of fats/oils

4. Pulses:

- a) Role in cookery
- b) Effect of processing on nutritive value
- c) Anti nutritional factors of pulses

UNIT-III

5. Milk

- a) Composition of milk
- b) Effect of heat, acid etc on milk

6. Meat, Fish and poultry: Nutritional composition and processing

UNIT-IV

7 Egg: Nutritional contribute on,role in cookery

Fruits and vegetables: Nutritional contribution

8. Effect of processing on nutritive value of Fruits and vegetables

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.
- 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.
- Bamji MS, Krishnaswamy K, Brahman GNV (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
- Srilakshmi (2007). Food Science, 4th Edition. New Age International Ltd.
- Wardlaw and Insel MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition. Mosby.
- Chadha R and Mathur P (eds). Nutrition: A Lifecycle Approach. Orient Blackswan, Delhi. 2015 P13-

P10 PRACTICAL

1. Planning and preparation of diets in-
 - a. 1. Soft, fluid and bland diets
2. Protein energy mal-nutrition
 - i. 3. Vitamin A deficiency
 - ii. 4 Iron Deficiency Anaemia
3. Overweight and underweight
4. Fevers
5. Constipation and Diarrhoea, ulcers
6. Jaundice and other liver diseases
7. Diabetes mellitus, Hypertension and coronary heart diseases,.
8. Renal diseases
9. Monitoring growth of child: Weighing and charting graph.
10. community survey for Nutritional Assessment

P11x-THERAPEUTIC NUTRITION

Course Outcome:

- Knowledge of principles of diet therapy
- Understanding the various therapeutic modification of normal diet
- Ability to counsel the persons and individuals about dietary intakes and modifications

Unit 1

Introduction to Diet Therapy

Basic concepts of diet therapy

Therapeutic modifications of the normal diet

Different methods of feeding

Interaction between drugs and nutrients(in brief).

Unit II

Common diseases/ disorders

Etiology, clinical features and nutritional management of:

Febrile disorders

GIT disorder-ulcers, Diarrhoea, constipation, pancreatitis

Underweight, overweight and obesity

Unit III

Lifestyle disorders

Etiology, clinical features and nutritional management of:

Diabetes ,Cardiovascular disease

Hypertension, Hypothyroidism

Unit IV

Chronic diseases

classification, etiology, symptoms and dietary management in stomach, liver and gallbladder diseases, Peptic Ulcer Gastritis, hepatitis, cholelithiasis

Renal diseases: nephritis, nephrosis
arthritis, osteoporosis, and Gout.

RECOMMENDED READINGS

- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Phoenix Publishing House Pvt. Ltd.
- Stacy Nix (2009). William's Basic Nutrition and Diet Therapy, 13th Edition. Elsevier Mosby.
- ICMR (1989) Nutritive value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- ICMR (2011) Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- Seth V and Singh K (2007). Diet Planning through the Life Cycle Part II: Diet Therapy. A Practical Manual, 4th edition. Elite Publishing House Pvt. Ltd.

P11Y- FOOD PROCESSING

Course Outcome:

- Acquired relevant appropriate and adequate technical knowledge together with the professional skills and competencies in the field of Food Processing

so that he/she is properly equipped to take up gainful employment in this Vocation.

- Knowledge of Food Industrial Technologies.
- Testing the performance of various equipment's and instruments.
- Knowledge of component level and at the stage level.

UNIT I

1. Status of food processing industries in India and abroad, magnitude and inter-dependence of dairy and food industry, prospects for future growth in India.

2. Food Spoilage Definition, types of spoilage - physical, enzymatic, chemical and biological spoilage. Mechanism of spoilage and its end products, shelf life determination.

UNIT II

3. Harvesting, transportation and storage of fruits and vegetables. Post harvest processing of fruits and vegetables: Peeling, sizing, blanching, Canning of fruits and vegetables, Drying and freezing of fruits and vegetables.

4. Preservation by using Preservatives Food preservation: Definition, principles, importance of food preservation, traditional and modern methods of food preservation. Food additives – definition, types, Class I and Class II preservatives.

UNIT III

5. Preservation by use of high temperature Pasteurization: Definition, types, Sterilization, Canning - history and steps involved, spoilage encountered in canned foods, types of containers used for canning foods. Food irradiation – Principles, merits and demerits, effects of irradiation and photochemical methods.

6. Preservation by use of Low Temperature Refrigeration - advantages and disadvantages, freezing: Types of freezing, common spoilages occurring during freezing, difference between refrigeration and freezing.

UNIT IV

7. Beverages: Classification, scope, carbonated non-alcoholic beverages and their manufacture. Fruit beverages and drinks

8.Preservation by Removal of Moisture Drying and dehydration - merits and demerits, factors affecting, different types of drying, Concentration: principles and types of concentrated foods.

RECOMMENDED READINGS:

- Food Processing: Principles and Applications by Ramaswamy H. & Marcotte M. Taylor & Francis.
- Food Science by Norman N Potter and Joseph H. Hotchkiss, CBS Publishers and Distributors.
- Novel Food Processing Technologies by Barbosa-Canovas, Tapia & Cano CRC Press, 2004.
- Y. H. Hui, S. Ghazala, D.M. Graham, K.D. Murrell & W.K. Nip Handbook of Vegetable Preservation and Processing Marcel Dekker (2003).
- Subalakshmi, G and Udipi, S.A. (2001), "Food processing and preservation". New

SEMESTER-6

P 12-COMMUNITY NUTRITION

Course Outcome:

- Develop basic understanding of concept of community nutrition.
- Understand the Multifaceted nature, causative factors and preventive strategies of common nutritional problems of India.
- Learn Direct and Indirect Nutritional assessment methods for individual, family and community.
- Get insight of various aspects of nutrition education.
- Get familiarize with the policy and programme operating in India to overcome malnutrition.

UNIT-1

1. Concept of community nutrition.
2. **Common nutritional deficiencies**
Etiology, prevalence, clinical features, prevention and management of PEM

Micronutrient deficiencies such as Vitamin A deficiency, iron deficiency Anemia, Iodine Deficiency Disorders, flurosis

UNIT-II

3. **Assessment of nutritional status: methods and application**
4. Direct methods – anthropometry, biochemical and clinical examination, dietary surveys

UNIT III

5. □ Indirect methods – vital statistics
6. Nutrition education :

Meaning of nutrition education and its importance.

UNIT-IV

7. Organizing nutrition education programme
8. National Nutritional Policy and Programms
 - ICDS
 - MDM
 - National program for Prevention of Anemia/VAD/IDD

RECOMMENDED READINGS

- Wadhwa A and Sharma S (2003). Nutrition in the Community- A Textbook. Elite Publishing Pvt Ltd, New Delhi.
- ICMR (1989) Nutritive value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- ICMR (2011) Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- **Understanding Nutrition:** *Whitney E.N. & Rolfes S.R.* 8th Edition West/ Wordsworth. 1999 3) **Nutritional Research:** Current Scenario and Future Trends Editor: *K, Krishnaswamy*, Oxford and IBH Publication Co. Pvt. Ltd., 2000 6)
- **Nutritional Problems of India:** *Shukla P.K.*, Prentice Hall of India Pvt. Ltd., Delhi 1982

P13- PUBLIC HEALTH AND HYGIENE

Course Outcome:

- Apply the principles and process of health management to enhance the effectiveness and efficiency of the national health programs.
- Plan, organize, implement, monitor or evaluate outcome and impact of health care programmes and services.
- Acquire the epidemiological know how and understand the dynamics of transmission of common communicable diseases for necessary measures to prevent and control diseases.

UNIT-I

Infectious disease Epidemiology- communicable and noncommunicable diseases, symptoms, Modes of transmission ,Incubation period, types Measures of Prevention and Control.

UNIT-II

Health hazards due to contamination foods: food borne infections and intoxication- symptoms, mode of transmission and prevention

Physical and chemical methods used in the destruction of infection agents: sterilization and disinfection,Types of disinfectants: Natural agents ,Physical agents ,Chemical agents ,

UNIT-III

Immunological principles: antigens, antibodies, types of immunity,immunization

Mal-nutrition and infection: inter relationship between the two

UNIT-IV

Family planning and demography: Definition, necessity, advantages, and methods of family planning.

Implication of drug addiction, Narcotics, Alcoholism, smoking, their control and prevention.

RECOMMENDED READINGS

- Textbook of Paediatrics- Aghor
- Community Health and Nursing- BasavanPhappa B.T.
- Textbook Microbiology for Nurses- Baveja C.P.
- Practical Pathology- Chaturvedi O.U.
- Textbook of Medicine- P.C. Das
- Handbook of Paediatrics- Desai
- Hygiene and Public Health- Ghosh P.
- Textbook of Preventive and Social Medicine- K. Park
- Textbook of Preventive and Social Medicine- J.E. Park
- Essentials of Community Health Nursing- J.E. Park
- Textbook of Obstetrics and Gynaecology- D.C. Dutta
- Textbook of Medical Microbiology- Anantnarayan

P14x-FOOD SERVICE MANAGEMENT

Course Outcome:

- Knowledge of type of food services in INDIA
- Understanding characteristics of various food service outlets
- Analysis of various resources required for food service establishments

UNIT 1

Introduction to Food Service

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

UNIT 2

Food Production

- Menu planning: Importance of menu, Factors affecting menu planning, Menu planning for different kinds of food service units
- Food Purchase and Storage
- Quantity Food production: Standardization of recipes, quantity food preparation techniques, recipe adjustments and portion control
- Hygiene and Sanitation

UNIT 3

Resources

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

UNIT 4

Planning of A Food Service Unit

- **Preliminary Planning**
Survey of types of units, identifying clientele, menu, operations and delivery
- **Planning the set up:**
 - a) Identifying resources
 - b) Developing Project plan
 - c) Determining investments
 - d) Project Proposal

RECOMMENDED READINGS

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

P14Y-BAKERY & CONFECTIONARY

Course Outcomes

- Identify and explain baking terms, ingredients, equipment and tools.
- Employ safe food handling practices using contemporary guidelines
- Scale and measure ingredients.
- Prepare yeast dough, quick breads, pies, cookies, cakes, icing, pate choux, and savory baking.
- Produce baked products using commercial ingredients and equipment.

Unit-I.

Basic baking principles

Mixing and Gluten Development: Blending the ingredients, adding liquid to hydrate flour proteins , developing gluten

The Baking Process- Melting of fats, leavening, Formation and expansion of gases, Killing of yeast and microorganisms,

Bread formulation: quality of materials like flour, shortening, yeast, chemical leaveners, flour improvers, preparing bread formula on the basis of the role of ingredients

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Unit-II.

Variety of breads, bun, and Pastries

Sensory evaluation of Bread, Bun and pastries

Hands on experience: Sensory evaluation of prepared bread & Bun

Unit-III.

Cake mixing methods,

Types of cakes-Butter Cake, Sponge Cake and Eggless Cake

Hands on experience: Preparation and evaluation of cakes

Different types and techniques of Cake Decoration -icings and fillings.

Unit-IV.

Methods, types and techniques, equipments used for the preparation of Biscuits, Cookies macaroons and muffins

Product quality, characteristics, faults and corrective measures of Cookies, biscuits, macaroons and muffins

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RECOMMENDED READINGS

- Dubey, S.C. (2017). *Basic Baking*, 5th Edition, ChanakyaMudrakPvt. Ltd., New Delhi.
- Rainact, AL. (2013). *Basic Food Preparation–Complete Manual*, 3rd Edition, Orient Longman Pvt Ltd., Mumbai
- Manay, S &Shanaksharaswami, M. (2014).*Foods : Facts and Principles*, New Age Publishers, New Delhi
- Samuel A, Martz (2004). *Bakery Technology and Engineering*, PAN-TECHI International IncorporatedP.Ltd, Madras.
- Faridi, F (2004). *Dough Rheology and Baked Product Texture*, CBS Publication, New Delhi

SEMESTER-7

P15- FUNCTIONAL FOODS

Course Outcomes:

- Students will know what are functional foods, their types, functions and importance in today life.
- They can clearly define Prebiotics,Probiotics and Nutraceuticals

UNIT 1

Functional foods – Evolution and Definition of functional foods.

Health benefits of functional foods and future promises in Indian diet.

Dietary Fibre. Oligosaccharides. Resistance starch. Omega 3 fatty acids .

UNIT 2

Colonic functional foods -Definition, types. Probiotics- definition, types,

Health benefits of probiotics in gastrointestinal health, cancer, and other diseases,

Recent advances in probiotics – Lactobacillus, Lactobacillus casei, L. casei strain Shirota.

UNIT 3

Prebiotics- definition, types, Health benefits of prebiotics, Recent advances in prebiotics- galacto-oligosaccharides (GOS), functional disaccharides (lactulose, lactitol and lactose), Resistant starch (RS), Prebiotic ingredients in foods.

UNIT 4

Nutraceuticals - Definition, Sources. Classification of nutraceuticals based on chemical nature. Phytochemicals as nutraceuticals – Isoprenoids, polyphenolics, glucocyanovates, phytosterols, dietary fiber.

Significance and relevance of nutraceuticals in the management of disease and disorders –.

References:

- Henry, C. J. "Functional foods." *European Journal of Clinical Nutrition* 64.7 (2010): 657-659.
- Weststrate, J. A., G. Van Poppel, and P. M. Verschuren. "Functional foods, trends and future." *British Journal of Nutrition* 88.S2 (2002): S233-S235.
- Kaur, Sumeet, and Madhusweta Das. "Functional foods: an overview." *Food Science and Biotechnology* 20.4 (2011): 861.

- Wildman, Robert EC, ed. *Handbook of nutraceuticals and functional foods*. CRC press, 2016.

P16- HEALTH & NUTRITION PROGRAMS

Course Outcome:

- Understand the importance of health and nutrition
- Know about the problem arise due to poor nutrition
- Different programmes for improving nutrition condition

Unit I:

Nutritional problems affecting the community

Etiology, prevalence, clinical features and preventive strategies of-

Undernutrition - Protein energy malnutrition: Severe Acute Malnutrition and Moderate Acute Malnutrition, Nutritional Anaemias, Vitamin A Deficiency, Iodine Deficiency Disorders

Overnutrition – obesity, coronary heart disease, diabetes

Fluorosis

Unit II:

Strategies for improving nutrition and health status of the community

Appropriate interventions involving different sectors such as Food , Health and Education

Unit III:

Nutrition Policy and Programmes

National Nutrition Policy

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

Unit IV:

Food and Nutrition Security

Concept, components, determinants and approaches

Overview of Public Sector programmes for improving food and nutrition security

RECOMMENDED READINGS:

- Wadhwa A and Sharma S (2003). Nutrition in the Community-A Textbook. Elite Publishing House Pvt. Ltd. New Delhi.
- Park K (2011). Park's Textbook of Preventive and Social Medicine, 21st Edition. M/s Banarasidas Bhanot Publishers, Jabalpur, India.
- Bamji MS, Krishnaswamy K and Brahmam GNV (Eds) (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd. New Delhi.
- Gibney MJ (2005). Public Health Nutrition.
- Vir S. (2011) Public Health Nutrition in developing countries. Vol 1 and 2
- ICMR (1989) Nutritive Value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- ICMR (2011) Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.

P17- FOOD QUALITY ANALYSIS

Course Outcome:

- To understand Food safety and hygiene, types of hazards associated with food

- To understand current Food regulations and Food Safety Management Systems.

UNIT I

Basics of Food Science and Food Analysis, Concept, objectives and need of food quality.

UNIT II

Measurement of colour, flavour, consistency, viscosity, texture and their relationship with food quality and composition.

UNIT III

Sampling; purpose, sampling techniques, sampling procedures for liquid, powdered and granular materials, Sensory evaluation methods, panel selection methods, Interpretation of sensory results. Instrumental method for testing quality

UNIT IV

Food adulteration and food safety. TQM and TQC, consumer preferences and acceptance, Food Safety Management Systems GAP, GHP, GMP, Hazards and HACCP (Hazard analysis and critical control point)

Sanitation in food industry (SSOP), Food Laws and Regulations in India, FSSAI, Food grades and standards BIS, AGMARK, PFA, FPO, ISO 9000, 22000 Series. CAC (Codex Alimentarius Commission), Traceability and Quality Assurance system in a process plant, Bio safety and Bioterrorism.

RECOMMENDED READINGS:

1. Rao E. S. (2013). Food Quality Evaluation, Variety Books.
2. Herbert Stone, Joel L. Sidel, (2012), "Sensory Evaluation Practices", Academic Press Publishers.
3. Maynard A. Amerine, Rose Marie Pangborn, Edward B. Roessler, (2013), "Principles of Sensory Evaluation of Food", Elsevier Publications.

4. Harry T. Lawless, Hildegard Heymann, (2010), “Sensory Evaluation of Food: Principles and Practices”, Springer Science & Business Media.

P18- MATERNAL & CHILD NUTRITION

Course Outcomes:

- Through Maternal and Child Nutrition, students understand the nutritional requirement of adults, nutritional needs during pregnancy and lactation and physiological changes and hormones involved during pregnancy and lactation.

UNIT 1

1. Current nutrition and health status of women and children in India.
2. Changing concepts and controversies in maternal and child nutrition
3. Importance of maternal nutrition

Importance of Nutrition prior to and during pregnancy

Pre requisites for successful outcome effect of undernutrition on mother child dyad including pregnancy outcomes and maternal and child health – short term and long term, management.

UNIT 2

4. Physiology and endocrinology of pregnancy and embryonic and fetal growth and development
5. Nutritional requirements during pregnancy-

Adolescent pregnancy

Pregnancy and AIDS

Pregnancy and TB

Intrauterine growth retardation

Complications of pregnancy and management and importance of antenatal care

Congenital malformations, foetal alcohol syndrome and gestational diabetes mellitus.

UNIT- 3

6. Lactation

Physiology and endocrinology of lactation – synthesis of milk components, let down reflex , role of hormones, lactational amenorrhea, effect of breast feeding on maternal health.

Human milk composition.

Management of lactation – prenatal, breast feeding skill education. Rooming problems – Sore nipples, engorged breasts, inverted nipples, etc.

Exclusive breast feeding

Baby friendly hospital initiative

Breast feeding in the age of AIDS

UNIT 4

7. Infant physiology and pre term and low birth weight infants : implications for feeding management

8. Growth and development during infancy , childhood and adolescence.

9. Feeding of infants and children and dietary management

10. Concept of small family – methods of family planning, ,merits and demerits

11. Policies and programs for promoting maternal and child nutrition and health.

RECOMMENDED READINGS:

- Bhutta, Zulfiqar A., et al. "Evidence-based interventions for improvement of maternal and child nutrition: what can be done and at what cost?." *The lancet* 382.9890 (2013): 452-477.

- Wu, Guoyao, et al. "Maternal nutrition and fetal development." *The Journal of nutrition* 134.9 (2004): 2169-2172.
- Geissler, Catherine, and Hilary J. Powers, eds. *Human nutrition*. Oxford University Press, 2017.
- Lanham-New, Susan A., et al., eds. *Introduction to human nutrition*. John Wiley & Sons, 2019.

P19X- FOOD PRODUCT DEVELOPMENT

Course Outcomes:

- This paper will help them to know the recent concepts in food product development
- Choose appropriate packaging materials and interpret labelling information as the students learn and are aware about the governing food packaging and labelling.
- Develop their own unique, nutritious food product.

UNIT-I

1. Market and consumer research: Needs, types of food consumption trends. Economic, psychological. Anthropological and sociological dimensions of food consumption pattern.

2. Trends in social change and its role in diet pattern, using social trends as a frame work in new product innovation.

UNIT II

3. Food situation in India and outside. Tapping the unconventional post harvest losses and prospects for processing for export.

4. Traditional food: Status and need for revival in the context of westernized non-traditional foods. Factors affecting the emerging need.

UNIT III

5. Product development: Primary processing, Secondary processing Types of products eg.: Quick cooking, Fast foods, Convenience food.

6. Recipe standardisation and large scale preparation.

UNIT-IV

7. Packaging- packaging suitability and functions development and management, design package graphics, labeling research and testing.

8. Transportation, types modes, optimization of transportation taking into account type of product, distance, storage, facilities etc.

9. Sensory evaluation and product testing, procedure and prerequisites

10. Costing of product.

RECOMMENDED READINGS:

- Rudolph, Marvin J. "The food product development process." *British Food Journal* (1995).
- Linnemann, Anita R., et al. "Consumer-driven food product development." *Trends in Food Science & Technology* 17.4 (2006): 184-190.
- Fuller, Gordon W. *New food product development: from concept to marketplace*. CRC Press, 2016.

P19Y- ENTREPRENEURSHIP MANAGEMENT

Course Outcome:

- Development of concept of Enterprise and Entrepreneurship
- Development of Understanding of scope of Entrepreneurship
- Development of Understanding of process of Entrepreneurship
- Development of Understanding of support institutions to promote Entrepreneurship

UNIT I

1. Definition and concept of Entrepreneurship, difference between Wage Employment, self employment and Entrepreneurship
2. Role of entrepreneurs in economic development of India.
3. Role of women entrepreneurs: opportunities and problems

UNIT II

4. Qualities of personality of an entrepreneur
5. Entrepreneurial motivation
6. Process of Enterprise development and management
 - a. Identification of opportunity
 - b. Preplanning of formalities
 - c. Preparation of preliminary project report

UNIT III

- d. Basics of Costing and pricing
- e. Basics of Production management
- f. Basics of Marketing management
- g. Basics of Human Resource management

UNIT IV

- h. Basics of Finance management
- i. Ergonomical safety & security
7. Patent Rules, Environmental considerations and social responsibilities.
8. Role of support institutions to promote small entrepreneurs

RECOMMENDED READINGS:

- Kaulgud A Entrepreneurship management

- Ormerod A Textile Project Management, the Textile Institute, 1992.
- SangramKeshariMohanti Fundamentals & Entrepreneurship: 2009: PHI learning.
- Vasanth Desai the dynamics of entrepreneurial development & Management: 6th edition Himalaya publish house. 2009.
- Franklin, T. Principles of Management, AITBS, 2002

CC/CV-RESEARCH METHODOLOGY

COURSE OUTCOME:

- On completion of this course, students will be able to apply statistical tools in various fields in their practical life.
- They will be able to derive various statistical measures, interpret the data through Bar diagrams, visualize the correlation between the variables and thus can apply these statistical techniques in their reports or researches.

UNIT I

1. RESEARCH: meaning, objectives, characteristics & significance. 2. TYPES OF RESEARCH: qualitative & quantitative.

UNIT II

2. RESEARCH PROBLEMS: definition and statement, selection of the problem, evaluation of the problem.

3. RESEARCH PROPOSAL: research proposal or synopsis, introduction, procedure for collecting and treating data, bibliography, time and budget schedule, REVIEW OF RELATED LITERATURE: purpose of the review.

UNIT III

4. SAMPLING: Concept, significance and types of sampling

5. DATA COLLECTION

DATA: - qualitative and quantitative

Sources of Data Collection- Primary and Secondary

Methods of Data Collection: Objective and Projective techniques

Observation, interview, questionnaire, sociometric techniques.

TOOLS: - questionnaire and schedule, checklist and rating scale

UNIT IV

6.RESEARCH REPORT: significance of report writing , types of report, different steps in report writing , layout of the research report, general format, style and format of writing , typing of research report , proof reading of the final draft , precautions of writing research reports.

RECOMMENDED READINGS:

- Best, JW and Kahn, JV (1992) Research in Education.6th ed. New Delhi, Prentice Hall of India Pvt.Ltd.,
- Kothari, CR (2004) Research Methodology, Methods & Techniques, 2nd ed. New Age International Publishers.
- Goode, WJ and Hatt, PK (1981) Methods in Social Research, McGraw Hill International Editions, Sociology Series.

SEMESTER-8

Major Project ---ON RELEVANT FIELD

GROUP II- HUMAN DEVELOPMENT & EXTENSION EDUCATION

SEMESTER-1

P 1- FUNDAMENTALS OF EXTENSION EDUCATION

Course Outcomes

- Gain knowledge on the need and importance of communication and its significance in exchange of information
- Analyse the models of Communication and role of media in societal development
- Perceive the importance of extension education
- Acquire knowledge on the extension models and approaches

Unit-I

1. Concept of Extension:
 - a) Meaning of extension
 - b) Origin and wider understanding of the meaning of extension education
 - c) Principles, scope, limitations
 - d) Goals, philosophy and role of extension education

Unit-II

2. Extension worker
 - a) Role of extension worker
 - b) Qualities
 - c) Training
3. Extension Education Process:
 - a) Environment for learning, role of educator, role of the people in learning and development
 - b) Learning experiences imposed information oriented to experiences

Unit-III

4. Community organization:

- a) Concept of organization in community development
 - b) Process of community organization
5. Leadership Patterns:
- Traditional leadership –role and functions
 - Emerging leadership-Shared leadership
 - Leadership and community organization for development

Unit-IV

6. Home Science Education as empowerment :
- a) The interdisciplinary of Home science education
 - b) The role of Home Science education for personal growth and professional development, National Development

RECOMMENDED READINGS

- Reddy A : Extension Education, Bapatia, India, Sri Laxmi Press
- WHO- Education for Health
- Gorges, Alan Teaching Adults in Extension Education
- Dhama OP &Bhatnagar OP: Education and Communication for Development

P2- FUNDAMENTALS OF HUMAN DEVELOPMENT

Course Outcome:

- Get insight of meaning, domains and the multidisciplinary nature of human development.
- Develop basic understanding of development from conception to old age.
- Understand theoretical perspectives in human development.
- Identify the principles guiding growth and development.
- comprehend different methods to study development in children.

Unit I

Understanding Human Development

Definitions, scope and multidisciplinary nature of Human Development

Contexts, stages and domains of development

Unit II

Historical perspective of human development

Methods of child study

Unit III

Principles of Growth and Development: Norms and Milestones

Role of environment and inheritance on development

Unit IV

Prenatal development (three stages of intra-uterine development and stages of birth process. Prenatal influence on the fetus, biological risks, age of mother, illness, diet and nutrition, stress and emotional strain, environmental hazard)

RECOMMENDED READINGS

- Santrock, J. W. (2011). Life-span development. New York: McGraw-Hill.
- Singh, A. (Ed.) 2015. Foundations of Human Development. New Delhi: Tata McGraw- Hill.
- Berk, L. (2013). Child development. 9th ed. Boston: Pearson.
- Snow, C. W., & McGaha, C. G. (2003). Infant development (3rd ed.). Upper Saddle River, NJ: Prentice Hall.
- Rice, F.P. (1998). Human Development: A Lifespan Approach. New Jersey: Prentice Hall.
- Rutter, M. and Rutter, M. (1992). Developing Minds: Challenge and continuity across the lifespan. London: Penguin
- Papalia, D.E. and Martorell, G. (2015). Experience Human Development. McGraw Hill Education.

SEMESTER-2

P3-LIFESPAN DEVELOPMENT –I

Course Outcome

- Develop an understanding about the need and importance of studying human growth and development across life span
- Learn about the biological and environmental factors that affect development
- Learn about the characteristics, needs and developmental tasks of different stages in the human life cycle
- Understand the different theoretical frameworks fundamental to HDFS
- Learn about the classic human development theories
- Develop professional attitude for working with human beings across life span

Unit-I

Physical Development across life span

1. The new born physical appearance, size, weight, bodily proportion, sensory capacities i.e. hearing, vision, touch etc.
2. Changes in size, shape, bone and brain as it continues through infancy , preschool, childhood, adolescent growth spurt(primary and secondary sexual characteristics, Plateau in adulthood, decreasing physical abilities in old age

Unit-II

Motor Development

- a. Reflexes in infancy, major milestones of infancy, pre-school years, middle and late childhood, adolescent plateau in adulthood, declining co-ordination in adulthood and age
- b. Factors affecting Physical and motor development

Unit-III

Social Development:

- a) Social development and socialization as an important part of the process becoming human
- b) Social milestones; beginning with the emergence of the social smiles, attachments, separation anxiety acquiring sex roles in childhood, social development at puberty, induction into occupational roles by adulthood, social isolation and consequences in the late adulthood and in the elderly
- c) Pattern and roles of child interaction, interaction with siblings and peers; social and cultural interaction through infancy to old age
- d) Factors affecting social development

Unit-IV

Emotional Development:

- i) Concepts of emotions and emotional development
- ii) Basic emotional reactions, joy, fear, jealousy, anger, sadness, aggression
- iii) Emotional Development through infancy, childhood, adolescence, stability of emotions in adulthood and old age.
- iv) Hazards in emotional Development

RECOMMENDED READINGS

- Rice, F. P. (1998). Human Development: A lifespan approach. New Jersey: Prentice Hall.
- Rutter, M. and Rutter, M. (1992) Developing Minds. Challenge and continuity across the life span. London: Penguin.
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata McGraw- Hill.
- Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient BlackSwan.
- Tennant, M. and Pogson, P. (1995) Learning and Change in the Adult Year, San Francisco: Jossey-Bass.

P4-PRACTICAL

1. Assessment of physical development of children
2. Assessment of motor development of children: gross motor skills, fine motor skills
3. Assessment of social behaviour
4. Assessment of emotional maturity/ emotional quotient
5. prepare play materials and teaching aids for children
6. Plan and develop activities to facilitate development in different domains

SEMESTER-3

P5-EXTENSION COMMUNICATION

Course Outcome:

- Develop understanding of scope and concepts of development communication.
- Comprehend the elements and process of effective communication
- Understanding about various communication methods and their use in community setting

UNIT I

1. Concept of development communication.
2. Meaning and importance of communication in development, purpose of communication
3. Existing patterns of communication. Factors that helps or hinders communication.

UNIT II

4. Communication process: one way and two way or interactive communication.
5. Gaps in communication or distortions in transmission of message and their causes;
- 6 Importance of two way communication. Basis for effective, interactive communication,

Unit III

Methods of communication in development methods to reach individuals.

7. Personal contact:

- Interview
- House visits
- Clinics to solve individual problems

8. Methods to reach small groups:

- Illustrated lectures
- Group discussions,
- Role play
- Demonstration
- Camps

9. Methods to reach masses:

- Radio programs
- Newspaper
- Posters
- Exhibits
- Videos
- Films
- T.V. Programme
- Letters
- Folders
- Pamphlets
- Public meetings

Selection preparations use and evaluation of the above methods.

Unit IV

11. Media for Development communication:

Folk media

Games

Puppet play

Print media

Newspapers – articles, stories

Audios/visuals, audio-visual media

Films documentary, features.

Selection, preparation and effective use of media in development education and evaluation of the effectiveness of the media.

RECOMMENDED READINGS:

- Reddy A : Extension Education, Bapatia, India, Sri Laxmi Press
- WHO- Education for Health
- Gorges, Alan Teaching Adults in Extension Education
- Dhama OP & Bhatnagar OP: Education and Communication for Development

P6-: PRACTICAL

1. Survey of village/near by slum area to students with conditions and problems to give them a background.
2. Training in preparation of charts, posters, flash cards, scripts, reading materials and other teaching aids
3. Practice in use of extension methods and techniques in the community.
4. Identify few of the folk forms of the region. Select any contemporary issue and evolve a script based on a selected folk format, and enact it.
5. Select target group and their relevant to the life situations in rural or urban settings, namely health education women's issues and so on, develop educational programme.

SEMESTER 4

P7- LIFE SPAN DEVELOPMENT-II

Course Outcome:

- Understanding the scientific concepts in human development.
- Knowledge of cognitive development, play and creativity
- Understanding the various factors affecting development.

Unit I

1. Cognitive Development across the life span:
 - a) Meaning of cognitive Development:
 - I. The concept of Intelligence.
 - II. A brief Introduction in Piaget's theory and stages,

Unit II

2. The Development of Language across the Life span.
 - i. Language as a form of communication.
 - ii. Function of Language.
 - iii. Communicating before language development i.e. the stage of vocalization undifferentiated crying, differentiated babbling, initiation of sound, patterned speech.
 - iv. Beginning in use language. One or two word sentence, early sentences, telegraphic speech grammatical language development.
 - v. Refinement of language through middle, late childhood and puberty,
 - vi. Decline of language in the aged (Speech impairment and disorders).

Unit III

3. Development of play:
 - vi. Play as means of development and learning.
 - vii. Development stage of play.
 - viii. Social dimension of play, unoccupied behavior, on looker behavior, solitary play, parallel play, associative play and co-operative play.
 - ix. Play as a means of children's all round development.

Unit IV

4. Development of Creativity:
 - i. Meaning of creativity
 - ii. Development of creativity
 - iii. Components of creativity
 - iv. Expression of creativity
 - v. Factors affecting creativity
- PERSONALITY DEVELOPMENT---Important aspects

RECOMMENDED READINGS

- Rice, F. P. (1998). Human Development: A lifespan approach. New Jersey: Prentice Hall.
- Rutter, M. and Rutter, M. (1992) Developing Minds. Challenge and continuity across
 - the life span. London: Penguin.
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata McGraw- Hill.
- Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient BlackSwan.
- Tennant, M. and Pogson, P. (1995) Learning and Change in the Adult Year, San Francisco: Jossey-Bass.

P8- EXTENSION PROGRAMME AND PROJECT PLANNING

Course outcome:

- Get insight of various community development programmes in India and their implications.
- Be able to differentiate between welfare and empowerment of women.
- Understand the meaning and concept of project management
- Develop basic understanding of various types of budget and budgeting process and its use in project foundation.

Unit 1

National efforts towards rural & urban development:

1. Five year plan for National development
2. Community development programs in India:
Evolution, Structure and function of community development at different levels.

Unit II

Programmes for women and children:.

3. a. Shift from welfare approach to empowerment approach in development
- b. DWCRA, ICDS, and other current programmes.

Unit III

2. Project management concept:
 - a. Meaning
 - b. Task of project manager
 - c. Assessment needs
 - d. Planning
3. Project implementation:
 - a. Organizing
 - b. Co-coordinating
 - c. Controlling
 - d. Monitoring
 - e. Reporting

Unit IV

Project Budgeting:

4. Preparing the budget- types of budget.

5. Project evaluation:
 - a. Ongoing evaluation
 - b. Final evaluation with impact

RECOMMENDED READINGS:

- DuranJ: communication for Rural Development, London. UK, British Council
- Kuppaswami B Communication and social development in India, Bombay, Media Promoters and Publishers Pvt Ltd
- Srinivasan Lyra: Tools for Community Participation: A Manual Training Trainers in Participatory techniques
- Reddy A : extension Education, Bapatia, India, Sri Laxmi Press

SEMESTER 5

P9- EARLY CHILDHOOD CARE AND EDUCATION

Course Outcome:

- Explain the need and importance of studying childhood and adolescence as a distinctive stage of the life-span.
- Describe the historical views and theories on childhood
- Describe the characteristics, needs and developmental tasks of infancy, early childhood
- Explain the importance of early childhood years and significance of intervention programs for early childhood development.

Unit 1

1. Significance and objectives of Early Childhood Care and Education.
 - a) Significance of early childhood years in individual development.
 - b) Need for intervention programmes for better growth and development.
 - c) Objectives of ECCE.

- d) Different types of programmes currently offered.
 - i. ECE Programme- Balwadi, Anganwadi, Nursery Schools, Kindergarten, Montessori, Laboratory Nursery School.
 - ii. ECCE Programme- I.C.D.S. and Motile Crutches, Play Group, Crèche and Day Care.

Unit 2

2. Historical Overview of ECCE:

- a) View of Educationist and Philosophers - Comenius, Rousseau, Pestalozzi, Frobel, MacMillan Sisters, Dowry and Montessori.
- b) Psychological- Recognition of Effect of experiences in early childhood years, opportunities for expression of anger, tension through creative activities and dramatic play for proper mental hygiene.
- c) Cognitive approach – Piaget’s contribution to curriculum for cognitive development.

Unit 3

3. ECCE in India – Contribution of RabindraNath Tagore, Gandhiji, TarabhaiModak.
4. Recent Development: Policies, Institutions and contributions of NGO’s.

Unit 4

5. Organization of ECCE Centre:
 - a) Place/ Building/ Space - Indoor and Outdoor, garden, play-ground, Storage space.
 - b) Furniture and equipments: Criteria for selection, functional utility, maintenance, low cost alternative.
 - c) Preparing equipments lists for indoor and outdoor activiti

RECOMMENDED READINGS :

- Agarwal, J. C. (2007). Early childhood care and education: principles and practices. New Delhi: Shipra
- Agarwal, S.P. and Usmani, M. (2000). Children’s education in India: from vedic a. times to twenty first century New Delhi: Shipra.

- Canning, N. (2010) Play and practice in the early years: Foundation stage. New Delhi: Sage.
- Fleer, M. (2010). Early learning and development: Cultural–historical concepts in play. Cambridge: Cambridge University Press.

P10- PRACTICAL

1. Collection of traditional stories and songs
2. Prepare picture book/ story for infants and toddlers
3. Prepare play material/ play activities to promote different areas of development
4. List the activities for each domain to promote all round development in young children
5. Planning pre-reading and writing skills
6. Plan activities/ material to promote mathematical concepts and science experiences
7. Visit, observe and submit report of various activities/programmes conducted in crèches, balwadis/ anganwadis and preparatory schools
8. Prepare a developmentally appropriate plan and its implementation
9. Visit and observe and submit report of various activities/programmes conducted in centres for children with special needs

P11x-METHODS AND MATERIALS FOR CHILDREN

Course Outcome:

- Discuss the goals, benefits, and uses of assessment as a part of various curriculum models.
- Summarize the basics of developmentally appropriate curriculum models.
- Participate in collaborative learning through group projects and research.

- Research, explore and reflect on current research and best practices in the field of early education.

UNIT I

Defining Developmentally Appropriate Practice

Understanding Play: Its Importance

UNIT II

A Consideration of Various Curriculum Models

Developmentally Appropriate Physical Environments: For Infants

Developmentally Appropriate Physical Environments: For Toddlers

UNIT III

Developmentally Appropriate Physical Environments: For Preschoolers

Developmentally Appropriate Physical Environments: For Primary-Aged Children

UNIT IV

Developmentally Appropriate Social/Emotional Environments: For Infants

Developmentally Appropriate Social/Emotional Environments: For Toddlers

RECOMMENDED READINGS:

- Herr, J., & Larson, Y.L. (2008). Creative Resources for the Early Childhood Classroom, New York: Thomson/Delmar Publishing. (Fifth Edition)
- Gestwicki, C. (2009). Developmentally Appropriate Practice. New York: Thomson/Delmar Publishing. (Fourth Edition)

P11y- SCHEMES AND PROGRAMS FOR COMMUNITY WELFARE

Course Outcome:

- Social Responsibility · Intellectual Growth · Leadership Development · Appreciating Diversity · Collaboration · Career and Educational Goals.
- Awareness about the schemes and programmes launched by the government and NGO's from time to time for community welfare.
- Sensitizing towards the needs of the marginalized, women and children.

UNIT:I

Schemes and services for Women:

1. Maternal and child health services , ante-natal and post-natal care, family planning services.
2. Vocational Training Programme.
3. Programmes of department of women and child development.
4. Agencies working for women- SEWA, CHETNA and AIWC

Unit: II

Welfare Services for the Aged:

5. Old age homes. Old age pension schemes.
6. Agencies working for aged, helpline India, Grant-in-aid programmes of Central and State Government.

Unit: III

Support Services for Youth Development:

7. Counseling
8. Employment bureaus/ career guidance.
9. Sport and Recreational activities.

10. Life style education for Youth.
- 11, NCC, NSS and Youth Camp.
- 12, Aid/HIV/STD awareness programmes.
13. Agencies working for Youth.

UNIT IV

Child Welfare Services:

14. Institutional services- SOS children's village, Orphanages, Foster Care and adoption.
15. Services for destitute and delinquent children.
16. Services for children of working mother's day care and factory crèches.

17. Development Services- ICDS
18. Agencies Working for Children: NIPCCD, NCERT, CRY, UNICEF.

RECOMMENDED READINGS :

- Bandarkar, P.I. and T.S. (2000). Methodology and Techniques of Social Research. Mumbai: Himalaya Publishing House •
- Dhama, O.P, and Bhatnagar O.P. (1991) Communication for Development. New Delhi: Oxford & IBH Publishing Co. Pvt. Ltd •
- Narayanaswamy, N. (2009). Participatory Rural Appraisal: Principles, Methods and Applications. New Delhi: Saga Publications •
- Neeta Mekherjee. (1997). Participatory Rural Appraisal: Methodology and Applications. New Delhi: Concept Publishing Company

SEMESTER 6

P12 NGO MANAGEMENT

Course Outcome:

- Acquiring specific knowledge on project and NGO management.
- Understanding the basic concepts and principles involved in managing NGOs.
- Understanding the Human resource management in NGO's.
- Knowledge on project proposal writing and maintenance of the NGO's

UNIT 1

1. Concept of NGO

Meaning of NGO

Difference between Government Organizations and NGO

Characteristics of good NGO

structure of NGO

Functions of NGO

Advantages of NGO

2. Present status of NGO

Contribution of NGO in the Development Role of Development Communicator in developing NGO

UNIT 2

3 Starting of NGO

Steps for starting NGO

Selection of Personnel

Training of Personnel

4. Proposal writing under NGO

Identifying Funding agencies

Resource Mobilization

Planning, Implementation and Evaluation strategy under NGO

UNIT 3

5 NGO Management

Organizational types and structures

NGO management competencies

6.Accountability and impact assessment for NGOs

UNIT 4

7.Problems of NGO

Training ,Recruitment ,Funding

Resource Mobilization, Documentation

RECOMMENDED READING:

- Jain R.B. (1995).NGO's in Development Perspective. New Delhi: VivekPrakasan
- Joel, S.G.R., and Bhose. (2003).NGO's and Rural Development – Theory and Practice. New Delhi: Concept Publishing Company
- John M. Riley. (2002). Stakeholders in Rural Development – Critical Collaboration in State – NGO Partnerships. New Delhi: Sage Publications

P13- COMMUNITY DEVELOPMENT

Course Outcome:

- Learn the history of community development programs in India
- Get acquainted with extension activities for community development
- Understand the importance of social surveys
- Gain knowledge of extension methods and approaches

UNIT - I

1. History of Community Development : Definition, objectives of community development programme

1. limitations of community development,
2. Elements of community development : Role of community development worker,

UNIT II

3. Community development programmes : a) Shriniketan rural reconstruction b) Gurgaon experiment c) Marthandam project d) Gandhian constructive programme
4. History of extension activities : a) Etawah pilot project b) Indian village service

UNIT III

c) Firka development scheme d) Nilokheri experiment

Social Survey : Definition, importance of social survey

tools of data collection- questionnaire, observation, interview and schedule methods

UNIT IV

Methods and Approaches of Extension □ People's participation and social mobilization in development Diffusion of innovation and adoption

Extension methods and approaches - classification, characteristics and selection

RECOMMENDED READINGS

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

P14x-THEORIES OF HUMAN DEVELOPMENT

Course Outcome:

- Apply the theoretical approaches to work with human being across life span
- Learn about the classic human development theories
- Develop professional attitude for working with human beings across life span
- Explain the need and importance of studying human growth and development across life span.
- Identify the biological and environmental factors affecting human development.

Unit 1

Early Theories

Psychological Theory – Sigmund Freud

Psychological Theory – Erik Erikson

Unit 2

Social Learning Theory – Albert Bandura

Learning Theories – Pavlov and Skinner

Unit 3

Cognitive Development Theory – Jean Piaget

Socio-Cultural theory of Cognitive Development – Vygotsky

Unit 4

Kohlberg's Moral Judgement Theory

Ecological Theory – Urie Bronfenbrenner

RECOMMENDED READINGS:

- Bhangaokar, R., & Kapadia, S. (in press). Human Development Research in India: A historical overview. In G. Misra (Ed.), *Hundred years of Psychology in India*. New Delhi: Springer.
- Feldman, R., & Babu, N. (2009). *Discovering the life span*. New Delhi: Pearson
- Kakar, S. (1998). *The inner world. Psychoanalytic study of childhood and society in India*. Delhi: Oxford University Press.
- Kapadia, S. (2011). Psychology and human development in India. Country paper. *International Society for the Study of Behavioural Development Bulletin* Number 2, Serial No. 60, pp.37-42.
- Keenan, T., Evans, S., & Crowley, K. (2016). *An introduction to child development*. Sage.
- Lightfoot, C., Cole, M., & Cole, S. (2012). *The development of children (7th ed.)*. New York: Worth Publishers.

- Santrock, J. (2017). A topical approach to life span development (9th ed.). New NY.: Mcgraw-Hill Higher Education.
- Singh, A. (2015). Foundations of Human Development: A life span approach. ND: Orient Black Swan.
- Walsh, B.A., Deflorio, L., Burnham, M.M., & Weiser, D.A. (2017). Introduction to Human Development and Family Studies. NY: Routledge

P14y- GENDER AND DEVELOPMENT

Course Outcome:

- Understanding the role of women as partners in development
- Sensitization towards gender disparity
- Need for bridging the gap of gender discrimination

Unit –I

Conceptual Analysis:

Women in development.

Women and development and gender approach to development.

Capacity building for Women: Education, decision making abilities and opportunities, awareness and information on legal and political issues.

Shift from “Welfare” approach to “Development and Empowerment” approaches implication.

Unit: II

Manifestation of Gender Imbalance:

Sex ratio, vital statistics, human resource development index.

Adverse effects on women and their participation in the development process.

Barriers to Women's access to inputs and services related to credit, legal right, employment, equal pay and decision making.

Unit:III

National Efforts: National Policy on Women.

Efforts by Ministry of women and child development impact of inter- national efforts.

Legal provision- Role of National Commission for Women.

UNIT IV

Women at the Grass Roots:

Need for emphasizing women at the grassroots. Means of empowerment changing status and role of women in the family and society.

Factors influencing such changes bridging gender difference to show the benefits of development.

Needs for organizational support efforts toward this.

Women's organizations and collective strength: Women's action groups, women's participation in development.

RECOMMENDED READINGS:

- 1.-Chatterjee, P. (2002). Community, gender and violence. Delhi: Permanent Black.
2. Das, B. (2009). Gender issues in development. Jaipur: Rawat Publications.
3. Goel, A, Kaur, A and Sultana, A. (2006). Violence against women: Issues and perspectives. New Delhi: Deep& Deep Publishers.
4. Jain, J., & Rai, S. (Eds.). (2002). Films and feminism: Essays in Indian cinema. Jaipur: Rawat Publications.

SEMESTER 7

HUMAN DEVELOPMENT

P15- ADOLESCENT'S RELATION AND WELL-BEING

COURSE OUTCOME:

- Understand about the adolescent and their problems
- will know how to deal with adolescent problems
- Relationship between adolescent and society and their behavior.

Unit I:

Understanding adolescence Definitions, social construction of adolescence

Significant physical, physiological & hormonal changes in puberty Ecological and cultural influences on adolescence.

Unit II :

Processes in identity formation: social identities, gender & well being

Adolescent Relationships: Role in building social capital . Family relationships: in nuclear, extended & joint families.

Unit III:

Peer relationships: identity formation, knowing one's strengths & weaknesses . Relationships beyond the family and peers.

Unit IV:

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

RECOMMENDED READINGS:

Textbook— Hurlock, child development

Gupta ,Bal vikas,

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

Web references:

- <https://youth.gov/youth-topics/teen-dating-violence/references>.
- <https://files.eric.ed.gov/fulltext/EJ795861.pdf>
- <https://srcd.onlinelibrary.wiley.com/doi/full/10.1111/cdep.12278>

P16- CHILDREN WITH SPECIAL NEEDS

Course Outcome:

- Explain the need and importance of studying children with different disabilities. •
- Describe the causes, the characteristics, assessment and intervention of various disabilities. •
- Identify the common disabilities prevalent in childhood.
- Demonstrate first- hand experience of interacting and understanding children with disabilities.

Unit 1

Introduction to Childhood Disabilities

- Defining disabilities
- Models of disability

- Classifying disabilities
- Social construction of disability
- Demography

Unit2

Common Childhood Disabilities

Identification, Assessment and etiology with reference to

- Locomotor disability
- Visual disability
- Auditory and speech disability
- Intellectual disability
- Autism
- Learning Disability

Unit 3

Children with Disabilities and Society

- Families of children with disability

- Prevention and management of different disabilities

Unit 4

- Educational practices- Special education and inclusion

- Policy and laws

RECOMMENDED READINGS :

Balsara, M. (2011). Inclusive education for special children. New Delhi: Kanishka Publishers.

Berk, L. E. (2007). Development through the lifespan. Delhi: Pearson Education.

Chopra, G. (2012). Early detection of disabilities and persons with disabilities in the community. New Delhi:Engage Publications.

P17- INTERPERSONAL RELATIONSHIPS AND FAMILY DYNAMICS

Course Outcome:

- Understanding family relationships
- Understanding Adjustment for family wellbeing

Unit-I

1. The Family:

- a) Definitions, functions, types(with reference to India)
- b) Family Life, cycle-Stages and substances
- c) Changing trends in India and Factors influencing the same

Unit-II

2. Marriage:

- a) Marriage as an institution: Goals, rituals Functions changes and challenges
- b) Mate selection: factors Influencing, changing trends, arranged and personal choice of mates
- c) Preparation of marriage, social emotional issues, financial concerns guidance and counseling
- d) Marital adjustment, areas and factors influencing planned parenthood

Unit-III

3. Inter-relationship with family :

- a) Individual roles, rights and responsibilities within the family
- b) Family instruction and communication importance types and methods of improvement.
- c) Areas of adjustment within the family at different stages of family life cycle

Unit-IV

4. Families with problems:

- a) Families with marital disharmony and disruption dimension, casual factors

Families in distress, violence and abuse, dowry victimization, violence against women

RECOMMENDED READINGS :

- Child Development by Hurlock
- Berk, L. E. (2007). Development through the lifespan. Delhi:Pearson Education.

P18- ADULTHOOD AND AGING

Course Outcome:

- Understand the theoretical significance of adulthood in life span development with special reference to aging
- Develop a culturally relevant understanding of issues and concerns of adulthood and aging
- Sensitize students to transitions in adult life and preparation for old age from a gender perspective
- Create awareness about policy provisions for adults and elderly across various contexts (work, family, retirement, health, welfare).
- Prepare students for outreach activities with varied groups of adults and elderly.

UNIT-I Stages of Adult Development and the Process of

Aging:

1. Stages of Adulthood and Aging: Emerging adulthood (18-25), mature adulthood

(25-45), middle age (45-55), late adulthood (55-65), old age (65 and above)

2. Characteristics and needs in different stages of adulthood

UNIT-II Development in Emerging and Early Adulthood

3. Definition, characteristics, developmental tasks

4. Physical changes - Cardiovascular and Respiratory systems, Motor performance, Immune system

5. Cognitive development - Changes in mental abilities - Crystallized and fluid intelligence, Information processing - Speed, Attention, Memory, Problem solving and Creativity

6. Life transitions and adjustments during early adulthood: Exploring sexual orientations, stable romantic relationships, alternative life choices, marriage, family life, parenting and caregiving, social mobility

UNIT-III Development in Middle and Late Adulthood

7. Definition, characteristics, developmental tasks,

8. Physical and cognitive changes, Changes in interests, Social, emotional, vocational changes,

9. Relationships at midlife - marriage and divorce, changing parent-child relationships, grandparenthood, siblings, friendships, relationship across generations- Middle aged children and their aging parents

UNIT-IV Development in Old Age

10. The phenomenon of aging - biological, psychological, sociological and functional age; optimal aging, normal aging, primary and secondary aging and successful aging

11. Gerontology - Definition, concept, history, importance and scope

12. Changing relationships in old age – marriage and divorce, widowhood, never-married, childless older adults, siblings, friendships

13 Policy provisions for the elderly: Global and national

14. Life style changes and holistic health (physical well-being, food choices, yoga and restorative fitness, counseling and therapy, social and interpersonal support systems)

RECOMMENDED READINGS

- Arnett, J. J., & Jensen, L. A. (2019). *Human Development: A cultural approach* (3rd ed.). New York: Pearson.
- Cavanaugh, J., & Blanchard-Fields, F. (2011). *Adult development and aging* (7th ed). Stamford, CT: Cengage Learning.
- Kakar, S. (Ed.). (1993). *Identity and adulthood*. New Delhi: Oxford University Press.
- Lamb, S. E. (Ed.). (2012). *Aging and the Indian diaspora: Cosmopolitan families in India and abroad*. New Delhi: Orient Blackswan.
- Menon, U. (2013). *Women, well-being and ethics of domesticity in an Odia temple town*. New Delhi: Springer.
- Rajan, I. S., Risseuv, C., & Perar, M. (Eds.). (2008). *Institutional provisions and care for the aged perspectives from Asia and Europe*. New Delhi: Anthem Press.
- Reddy, P.A., Devi, U., & Harinath, N. (2010). *Ageing: The global phenomena: issues and strategies*. New Delhi: Sonali.
- Sahoo, F. M. (Ed.). (2009). *Behavioral issues in ageing: Care, concern and commitment*. New Delhi: Concept Publishers.
- Sahu, C. (1988). *Problems of aging among Indian tribes*. New Delhi: Sarup & Sons.
- Shankardass, M.K. (Ed.). (2020). *Ageing issues and responses in India*. New Delhi: Springer.
- Soneja, S. (2001). *Elder abuse in India*. Report for the World Health Organization.

Srivastava, V. (2010) *Women and ageing*. New Delhi: Rawat Publishers

P19X- ENTREPRENEURSHIP MANAGEMENT

Course Outcome:

- Development of concept of Enterprise and Entrepreneurship
- Development of Understanding of scope of Entrepreneurship
- Development of Understanding of process of Entrepreneurship
- Development of Understanding of support institutions to promote Entrepreneurship

UNIT I

1. Definition and concept of Entrepreneurship, difference between Wage Employment, self employment and Entrepreneurship
2. Role of entrepreneurs in economic development of India.
3. Role of women entrepreneurs: opportunities and problems

UNIT II

4. Qualities of personality of an entrepreneur
5. Entrepreneurial motivation
6. Process of Enterprise development and management
 - a. Identification of opportunity
 - b. Preplanning of formalities
 - c Preparation of preliminary project report

UNIT III

- d. Basics of Costing and pricing
- e. Basics of Production management
- f. Basics of Marketing management
- g Basics of Human Resource management

UNIT IV

- h. Basics of Finance management

i. Ergonomical safety & security

7. Patent Rules, Environmental considerations and social responsibilities.

8. Role of support institutions to promote small entrepreneurs

RECOMMENDED READINGS:

- Kaulgud A Entrepreneurship management
- Ormerod A Textile Project Management, the Textile Institute, 1992.
- SangramKeshariMohanti Fundamentals & Entrepreneurship: 2009: PHI learning.
- Vasanth Desai the dynamics of entrepreneurial development & Management: 6th edition Himalaya publish house. 2009.
- Franklin, T. Principles of Management, AITBS, 2002

P19Y- CHILD RIGHTS AND GENDER EMPOWERMENT

Course Outcome:

- To understand the various definitions of child and child rights
- To learn about various dimensions of vulnerability with regard to children
- To understand contemporary gender issues

UNIT-I:

Understanding Child Rights

Meaning of child rights and Convention on Child Rights (UNCRC)

Knowing disadvantage and exclusion in relation to children

The role of State, family and children in promotion and protection of child rights\

UNIT- II:

Children in Especially Difficult Circumstances (CEDC)

Classification, issues and causes of CEDC:

Street children, working children and homeless children

Child abuse

Child trafficking

Children in conflict with law

UNIT- III:

Conceptualizing Gender

Defining terms-sex, gender, masculinity, femininity

Socialization for gender- gender roles, gender stereotypes

Patriarchy and social institutions

Perspectives on feminism

Media and gender

UNIT-IV:

Laws and Programs

NCPCR

Child Helpline, Umeed- Child Abuse

BachpanBachaoAndolon- Child Labour, Child Trafficking

PRAYAS- Delinquent, Street Children

DCCW- Street, Homeless and Working Children

Domestic Violence Act-2005

National Child Labor (Protection and Regulation) Act-1986

RECOMMENDED READINGS:

- Bajpai, A. (2006), Child rights in India: law, policy and practice. New Delhi: Oxford University Press.

- Bhasin, K. and Khan, N.S. (2014). Feminism and its relevance in South Asia. New Delhi: Women Unlimited.
- Bhasin, K. (2016). Pitrasattakyahai? New Delhi: Delhi Jagori

EXTENSION EDUCATION AND COMMUNICATION

P15- NON FORMAL EDUCATION

Course Outcome:

- Develop understanding of meaning of education and it's types.
- Learn the concept of non formal education and it's role in economic, social and skill development.
- Gain knowledge literacy material methods, curriculum and its impact on learner
- Get acquainted with the literacy scenario of the district, state and nation.

Understand the concept, objectives and functioning of various schemes and organization focusing on non formal education.

Unit- I

Meaning of Education , Adult Education and Non-Formal Education. Distinction between formal and non- formal single point entry, sequential progression, whole time instructive, insistence on professional teachers, standardized curriculum.

The purpose of adult's education/non-formal education.

Nature of Non Formal Education ; Alternative/ Supplementary to Formal Education

Unit-II

History of Adult Education in Post Independent India.

The Gram SikshanMohim.

Farmer's Functional Literacy Projects.

Non- formal Education for Youth.

National Adult Education Programme (NAEP)

Rural Functional Literacy Project (RFLP)

National Literacy Mission (NLM)

Universal Primary Education

Adult Education through voluntary agencies.

Unit-III

Adult Literacy :Current Literacy Scenario of the nation, state, district

Goals of Literacy; Literacy as a tool for modernisation

Literacy and skill development for modernization

Choice of language for literacy ,dialect vs standard.

Kinds of literacy materials available and their impact on literacy learning.

Unit-IV

Post Literacy: Continuing education

Community participation, essential basis of non- formal education.

Role of the teacher and the learned in literacy programme.

Curricula, training, research. in Non Formal Education

RECOMMENDED READINGS

- Wadhwa A and Sharma S (2003). Nutrition in the Community- A Textbook. Elite Publishing Pvt Ltd, New Delhi.

- ICMR (1989) Nutritive value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- ICMR (2011) Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- **Understanding Nutrition:** *Whitney E.N. & Rolfes S.R.* 8th Edition West/ Wordsworth. 1999
- 3) **Nutritional Research:** Current Scenario and Future Trends Editor: *K. Krishnaswamy*, Oxford and IBH Publication Co. Pvt. Ltd., 2000
- 6) **Nutritional Problems of India:** *Shukla P.K.*, Prentice Hall of India Pvt. Ltd., Delhi 1982

P16- COMMUNICATION FOR DEVELOPMENT

Course Outcome:

- Understand the concept related to communication for development
- Comprehend the significant development communication
- Focus on different types of media and its uses in the implementation of programme
- Analyze the ICT in development communication
- Understand the steps in message

Unit-I. Development Communication

1 Definition, basic concept, nature, significance and functions and dysfunctions, dynamics of development.

2 Models of Development- Dominant paradigm, Basic Needs model, new paradigm of development.

3 Philosophy of and principles of development communication.

4 Methods of Communication.

Unit-II. Approaches to Development Communication

1 Meaning, nature, role and characteristics of development communication

2 Interrelationship between development and development communication

- 3 Diffusion / extension approach, Mass media approach, development support communication approach, institution approach, integrated approach and localized approach
- 4 Paradigm of development communication

Unit-III. Media and Development Communication

- 1 Traditional media – types, characteristic role in development communication
- 2 Development reporting – roles and responsibilities of development reporter, ethics in reporting, required skills and issues in development reporting
- 3 News reporting – definition of news, ingredients and qualities of news, news value, types of news reports, structure of news reports
- 4 Radio news, features and commentaries, radio and development communication
- 5 Television and cinema – role in development communication
- 6 ICTS – scope in development communication

Unit-IV. Skills for Development Communication

- 1 Photography -basic principles, preplanning, scripting, shooting, developing, mounting, recording of commentary or dialogue, synchronization of frame with recording
- 2 Videofilms – essential preliminaries, preplanning – procedure, classification of video programmes, shooting script
3. Social marketing and advertising: concept of social marketing
4. Innovative strategies in Social marketing
5. Advertising – definition, types, origin and role

6.Types of advertisement and their impacts

7.Media for advertising

RECOMMENDED READINGS

- Capila.A. (2001). Images of Women in the Folk Songs of GarhwalHimalayass. New Delhi: Concept Publishers
- Communication for Development in the Third World Theory and Practices (1991). New Delhi: Sage Publications
- Dhanrajpatil. (2010). Communication for rural development in India. New Delhi: Serials Publications
- Gupta.D. (2007). Development Communication in Rural Sector. New Delhi: Mukhopadhyay, Abhijeet Publication
- Joshi Uma. (1997). Textbook of Mass Communication and Media. New Delhi: Anmol Publications
- Joshi Uma. (2001). Understanding Development Communication. New Delhi: Domincent Publishers
- Karun Shetty. (2011). Communication for Social Change. New Delhi: Pacific publication
- Nisha,M. (2006). Understanding Extension Education. New Delhi: Kalpay Publications
- Reddy, A.A. (2001). Extension Education. Bapatla: Sri Lakshmi Press
- Singh, U.K., and Nayak A.K. (2007). Extension Education. New Delhi: Common Wealth Publishers

P17-COMMUNICATION SYSTEMS AND SOCIAL CHANGE

Course Outcome:

- Understand the role of communication in social development

- Understanding different communication system to meet the changing social needs

UNIT I:

Understanding self through communication

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

UNIT II:

Interpersonal Communication

Concept, types and functions of interpersonal communication• Dyadic, small and large group communication• Stages in human relationship development• Small group communication: types and functions

UNIT III

Communication for social change

Communication for Development Approaches of Some Governmental and Non-Governmental Agencies

UNIT IV

Development Communication and Extension orient students to various dimensions of development and communication for social change.

Contemporary development concerns, advocacy and communication for sustainable social change with gender sensitivity.

RECOMMENDED READINGS:

- Narula, Uma (1994) Development Communication, New Delhi, ~~Harian~~ Publication

- Servaes, Jan (2008). Communication for Development and Social Change, New Delhi, Sage Publication
- Mefalopulos. P (2008) Development Communication Sourcebook- Broadening the boundaries of communication, The World Bank.
- Devito, J. (1998) Human Communication. New York: Harper & Row.
- Barker, Larry Lee. (1990) Communication. Eaglewood Cliffs, New Jersey: Prentice Hal

P18- TRAINING FOR DEVELOPMENT

course outcome:

- Gain basic knowledge on types and techniques of training for professional development
- Develop the skill on designing a training programme
- Conduct on campus or off campus training programme
- Use techniques like team building , group discussion and brain storming for professional development

Unit-I. Learning Theories

1.1 Basic concepts of learning theories

1.2 Principles of learning, learning patterns, characteristics of learning process

1.3 Theories of learning- Behaviorism, Cognitivism, social learning theory, social constructivism, multiple intelligences, brain-based learning

1.4 Purpose of learning theories in training and professional development

1.5 Advantages and limitations

1.6 Interaction with trainees and training officials and find out the method and apply the same for professionals

Unit-II. Training Approach

2.1 Basic concept of training approach

- 2.2 Purpose of training approach
- 2.3 Types of training approach
- 2.4 Steps involved in training approach
- 2.5 Advantages and limitations
- 2.6 Preparation of training content and procedures (methods and materials)

Unit-III. Types of Training

- Meaning of
3.1 training for professional development
- Purpose of
3.2 training for professional development
- Pre-service
3.3 training
- 3.4 In service training and staff development
- 3.5 Evaluation and assessment of training
- Detect and predict defects in the procedural design of a training
3.6 activities

Unit-IV. Phases of Training

- Planning Phase –Setting the goals and objectives of an organization, analyzing –
4.1 the human resources, efficiency indices and organizational climate
- Implementation Phase –publicity , develop training brochures, annual calendar
4.2 of learning opportunities, time about their teaching plans
- Evaluation
4.3 Phase - reaction, behavior and result
- 4.4 Types of Evaluation – evaluation for planning, process of evaluation, terminal

evaluation and

impact

evaluation

RECOMMENDED READINGS

- Bahal, R., Swanson, B.E., and Farner, B.J. (1992). Human resources in agricultural extension: A worldwide analysis Indian Journal of Extension Education
- Dahama, O.P. (1979). Extension and rural welfare New Delhi: Ram Parsad and Sons
- Dipak Kumar BhattaCharyya. (2015). Training and Development. New Delhi: Sage Publication Limited
- Flippo, E B. (1961). Principles of personnel management. New York: McGraw Hill
- Kirkpatrick, D. (1976). Training and Development Handbook. New York: McGraw Hill
- Lynton, R.P., and Pareek, U. (1990). Training for development. West Hartford, CT: Kumarian Press
- McGhee, W. and Thayer, P. W. (1961). Training in business and industry. New York: John Wiley and SonsP19x- Entrepreneurship Management

P19X ENTREPRENEURSHIP MANAGEMENT

Course Outcome:

- Development of concept of Enterprise and Entrepreneurship
- Development of Understanding of scope of Entrepreneurship
- Development of Understanding of process of Entrepreneurship
- Development of Understanding of support institutions to promote Entrepreneurship

UNIT I

1. Definition and concept of Entrepreneurship, difference between Wage Employment, self employment and Entrepreneurship
2. Role of entrepreneurs in economic development of India.
3. Role of women entrepreneurs: opportunities and problems

UNIT II

4. Qualities of personality of an entrepreneur
5. Entrepreneurial motivation
6. Process of Enterprise development and management
 - a. Identification of opportunity
 - b. Preplanning of formalities
 - c Preparation of preliminary project report

UNIT III

- d. Basics of Costing and pricing
- e. Basics of Production management
- f. Basics of Marketing management
- g Basics of Human Resource management

UNIT IV

- h. Basics of Finance management
- i. Ergonomical safety & security
7. Patent Rules, Environmental considerations and social responsibilities.
8. Role of support institutions to promote small entrepreneurs

RECOMMENDED READINGS:

- Kaulgud A Entrepreneurship management
- Ormerod A Textile Project Management, the Textile Institute, 1992.
- SangramKeshariMohanti Fundamentals & Entrepreneurship: 2009: PHI learning.
- Vasanth Desai the dynamics of entrepreneurial development & Management: 6th edition Himalaya publish house. 2009.
- Franklin, T. Principles of Management, AITBS, 2002

P19y- EXTENSION MANAGEMENT

Course Outcome:

- Understand the concept related to Extension Management
- Comprehend the purpose of planning and organizing
- Focus on requirement of effective staffing for successful Management
- Analyse the significance of effective controlling

Unit-I. Extension Management

- Meaning, function, basic elements , characteristics of extension management
- Concept, need, nature, objectives and functions of extension
- Informal, formal and non-formal education and differences between formal and extension education

Unit-II. Planning

- Definition, requirement of effective planning, levels of planning, elements of planning, contingency planning

Unit-III. Organizing

- Definition, requirements of effective organizing, line and staff function
- Span of management, scalar principle, delegation of authority, use of committee, coordination, involvement of organizations at the local level
input management, common mistakes in organization

Unit-IV. Staffing

- Definition, requirements of effective staffing , training for professional development, training strategy
- Training Methods – lecture, group discussion, seminar, panel discussion, colloquium, symposium, workshop, syndicate method, case study role playing, brain storming, buzzy session, sensitivity training, interactive video, video conferencing, performance appraisal, stress in managing, organizational conflict, grievances in organizations.

Controlling:

- Definition, requirements of effective controlling, monitoring and evaluation, supervision, budgeting and auditing, reporting
- Change agent success, change agent problems a study in organizational management, reaching the weaker sections, administration of rural credit

RECOMMENDED READINGS:

- Banerjee,S. (1981). Principles and Practice of Management. New Delhi:Oxford and IBH Publishing company
- Basu, C.R. (1989). Organisation and Management. New Delhi:Schandand Co Ltd.
- Burton, Gene and HanabThakar. (1997). Management Today.New Delhi: Tata McGraw Hill Publishing Company
- Chandan, J.S. (1997). Management – Concepts and Strategies. New Delhi: Vikas Publishing House
- Koontz and Heinz Weihrich. (1990). Essentials of Management. New Delhi: Me Graw –Hill.
- Prasad,M.L. (1999). Principles and Practice of Management. New Delhi:Sultan Chand and Sons.
- Ramasamy, T. (1985).Principles of Management, Mumbai: Himalaya Publishing House.

- Rao,V.S.P., and Narayana P.S. (1987). Principles and Practice of Management. New Delhi: Konark Publishers Private Limited
- Ray,G.L. (2015). Extension Communication and Management. Ludhiana: Kalyan publications.
- Tripathi P.C., and Reddy,P.N. (1993). Principles of Management. New Delhi: Tata McGraw HillRESEARCH METHODOLOGY

CC/CV- RESEARCH METHODOLOGY

Course Outcome:

- On completion of this course, students will be able to apply statistical tools in various fields in their practical life.
- They will be able to derive various statistical measures, interpret the data through Bar diagrams, visualize the correlation between the variables and thus can apply these statistical techniques in their reports or researches.

UNIT I

1. RESEARCH: meaning, objectives, characteristics & significance. 2. TYPES OF RESEARCH: qualitative & quantitative.

UNIT II

2. RESEARCH PROBLEMS: definition and statement, selection of the problem, evaluation of the problem.

3. RESEARCH PROPOSAL: research proposal or synopsis, introduction, procedure for collecting and treating data, bibliography, time and budget schedule, REVIEW OF RELATED LITERATURE: purpose of the review.

UNIT III

4. SAMPLING: Concept, significance and types of sampling

5. DATA COLLECTION

DATA: - qualitative and quantitative

Sources of Data Collection- Primary and Secondary

Methods of Data Collection: Objective and Projective techniques

Observation, interview, questionnaire, sociometric techniques.

TOOLS: - questionnaire and schedule, checklist and rating scale

UNIT IV

6.RESEARCH REPORT: significance of report writing , types of report, different steps in report writing , layout of the research report, general format, style and format of writing , typing of research report , proof reading of the final draft , precautions of writing research reports.

RECOMMENDED READINGS:

- Best, JW and Kahn, JV (1992) Research in Education.6th ed. New Delhi, Prentice Hall of India Pvt.Ltd,.
- Kothari, CR (2004) Research Methodology, Methods & Techniques, 2nd ed. New Age International Publishers.
- Goode, WJ and Hatt, PK (1981) Methods in Social Research, McGraw Hill International Editions, Sociology Series

SEMESTER 8

MAJOR PROJECT

Group III- TEXTILES & CLOTHING AND FAMILY RESOURCE MANAGEMENT

SEMESTER-1

P 1- FUNDAMENTALS OF TEXTILES

Course Outcome:

- Fundamental understanding of Textiles
- Knowledge development regarding various types of basic textiles fibres
- Learning development regarding processes involved in yarn manufacture
- Comprehension development regarding use of various types of fibres and yarns

Unit I

1. Definition and Classification of textile fibres.
2. History, manufacture, properties (chemical, physical and microscopic) and importance of following textile fibres:

Natural Fibres

- Protein: wool, silk
- Cellulose : cotton, linen
- Mineral : Asbestos

Unit II

Man-made/Synthetic Fibres:

- Cellulose: Rayon
- Polyamide : Nylon
- Polyester
- Acrylic and Modacrylic

Unit III

- Olefin

- Elastomeric
- Mineral: Glass, Metallic

3. Yarn: definition and basic concept of:

a) Yarn construction Process : Mechanical spinning, Chemical Spinning

Unit IV

b) Type of yarn

- Staple yarns
- Filament yarns
- Simple Yarn
- Complex yarns

c) Properties of yarns:

- Yarn numbering system-count, denier, Tex
- Twists in yarns

d) Textured yarns

e) Fibre blends

f) The effect of yarn on the finished fabrics

RECOMMENDED READINGS

- Booth, J.E. (1996). *Principles of Textile Testing*. New Delhi: CBS Publishers & Distributors Pvt. Ltd.
- Corbman, P.B. (1983). *Textiles: Fibre to Fabric*. McGraw-Hill Publishers.
- Collier, B.J., & Epps, H.H. (1998). *Textile testing and analysis*. Prentice Hall Publishers.
- Dantyagi, S. (1996). *Fundamentals of Textiles and their Care*. India: Orient Black swan Private Limited.
- D'Souza, N. (2014). *Fabric Care*. New Delhi: New Age International Publishers.
- Greaves, P.H., Saville, B. P. (1995). *Microscopy of textile fibres*. bios Scientific Publishers
- Gohl, E., Vile sky, L. (2003), *Textile Science: an explanation of fiber properties* (2 edition), New Delhi.
- Hollen, R. N., Saddler, J., & Langford, A. (1979). *Textiles*. Macmillan

Publishers.

- Joseph, M. (1992), *Introductory Textile Science*. Sixth edition, California: Harcourt College Publishers
- Rastogi, D., & Chopra, S. (2017). *Textile Science*. India: Orient Blackswan Private Limited

P2- FUNDAMENTALS OF FAMILY RESOURCE MANAGEMENT

Course Outcome:

- Comprehend the fundamentals of resource management in changing scenario
- Familiarize the students with the available resources, their uses and conservation
- Enable the students to utilize resources in a prudent manner
- Understand the processes of management in a scientific manner in the use of resources.

Unit-I

1. Introduction to management:
 - a) Basic concepts of management
 - b) Purpose of Management
 - c) Obstacles to the improvement of management
 - i) Lack of awareness of management
 - ii) Lack of awareness of resources
 - iii) Failure to evaluate result of management
 - iv) Lack of information
 - v) Seeking readymade answer to problems

Unit-II

2. Management Process:
 - a) planning
 - b) controlling
 - c) evaluation

3. Factors motivating management
 - a) Goal-definition, types and utility
 - b) Values- importance, sources of values, classifications, characteristic, changing values
 - c) Standards-definition, classification

Unit-III

4. Decision Making
 - a) Role of decision making in management
 - b) Steps in decision making
5. Resources in the family:
 - a) Classification
 - b) Factors affecting the use of resources
 - c) The family life cycle

Unit-IV

6. Money Management:
 - a) Family income
 - b) Expenditure
 - c) Family budget
 - d) Savings
7. Time management:
 - a) Importance
 - b) Tools in time management
 - c) Process

RECOMMENDED READINGS

- Nickell& Dorsey: Managemen in Family Living
- Gross &Crandle: Management for Modern families
- Vargese: Introduction to Home Management

SEMESTER-2

P3- ART & DESIGN

Course Outcome

- Understanding the Basics of Design Components
- Understanding and practicing elements of design
- Understanding and practicing principles of design
- Understanding and appreciating Indian traditional regional art
- Knowledge development regarding Flower Arrangement and Floor Decoration

Unit-I

1. Introduction to foundation of art:
 - a) Design-Definition and types
Structural and decorative
 - b) Elements of Design-
 - i) Line
 - ii) Form
 - iii) Texture
 - iv) Space
 - v) Shape
 - vi) Light
 - vii) Colours-classification, dimensions, colour schemes and effects

UNIT II

2. Principles of design-Definition and their characteristics:
 - a) Balance

- b) Harmony
- c) Proportion
- d) Repetition
- e) Rhythm
- f) Emphasis
- g) Radiation

Unit-III

- 3. Decoration art -
 - i) Floor Decoration
 - ii) Flower Arrangement
- 4. Appreciation of art:
 - i) In terms of Principles of art and design
 - ii) In terms of composition and aesthetic appeal

Unit-IV

- 5. Indian art:
 - a) regional
 - b) traditional
 - c) contemporary
- 6. Significant Features of Indian Home Decoration

RECOMMENDED READINGS:

- Bhargava B, Family Resource management & Interior Decoration, Jaipur, University Book House Pvt Ltd
- Goldstein H Goldstein V, Art in Everyday Life , Mc Millan Publishers, The University of Michigan
- Bhatt P Foundation of Art & Design Lakhani Books
- Rutt A Home Furnishing J Wiely&Sons , California

P4- PRACTICAL

1. Preparation of colour wheel and colour schemes
2. Flower arrangements: application of design principles innovation of new styles
3. Floor Decoration
4. Application of design principles in innovative household articles
5. Planning of household budget of different income levels

SEMESTER-3

P5-: BASICS OF CLOTHING CONSTRUCTION

Course Outcome:

- Understanding fundamentals of Clothing Construction
- Learning terms and terminologies used in clothing construction
- Ability development selection of fabrics
- Acquiring practical knowledge about construction of some basic garments

Unit I

1. Arranging Stitching area
2. Equipment: equipment and supplies used in clothing construction, their maintenance, problems faced, remedies with specific reference to sewing machine.
3. Basic terminology used in clothing construction
General principles of clothing construction,
4. Selection of Fabrics, understanding width and right side of fabric, Grainline

Unit II

5. Body measurement for different types of garments,
6. Preparation of fabrics for garment making, laying out of pattern, marking and cutting of different types of fabrics (like checks, floral prints, pile etc)
7. Interfacing, lining and interlining
8. Pressing while stitching

Unit III

9. Simple stitches seams, necklines pockets, Fastners used in clothing construction
10. Fullness, gathers , tucks
11. Finishing of raw edges and disposal of fullness in clothing construction

Unit IV

12. Especial considerations for sewing for babies and children
13. Household Linen: Importance, factors affecting selection of various household linen, care and maintenance
14. Mending and renovation

RECOMMENDED READINGS:

- Armstrong, Pearson. (1995), Pattern making for Fashion Design, Fairchild Publication, New York 1995 (Indian Ed.)
- Cream, Penelope.,(1996), The Complete Book of Sewing - A Practical Step by Step Guide to Sewing Techniques, DK Publishing Book, New York
- Dorothy wood, the practical encyclopaedia of sewing, Anneess publishing Ltd, London.
- Holman, Gillian. (1997), Pattern Cutting Made Easy, BSP.
- Janace E. Bubonia. (2012), Apparel production terms and processes, Fairchild Books, New York.

- Anna Jacob: Art of Sewing UBSPD, New Delhi
- Bane A –Tailoring, Mc Graw Hill Publication
- Reader’s Digest: Complete Guide to Sewing, Association inc New York
- Doongaji&Deshpandey : Basic Process and Clothing Construction, New Delhi, NewRaj Book Depot

P6-PRACTICAL

1. Sewing machine and its parts, common defects and remedy for them, equipment used for clothing construction.
2. Sewing techniques: basic stitches, seams, fullness, gathers, pockets, tucks, Fastners in common use, their application to the garments given below:
3. Drafting of child’s basic bodies block.
4. Garments construction:
Drafting, cutting and stitching of simple garments such as:
Bib, A-line dress, apron and petticoat.

SEMESTER 4

P7- HOUSEHOLD EQUIPMENTS

Course outcome:

- To learn the integration of physics and its application in the household equipment.
- To have a fair knowledge about the household Equipments, their selection and classification.
- To learn their Working Principles and maintenance.

Unit-I

1. Mechanics:
 - a) Simple Machine
 - b) Lever
2. Forces: centripetal and centrifugal forces spin dryer in washing machine
3. Frictions:
 - a) Advantages and disadvantages, concept of ball bearing in sewing machine & vacuum cleaner
4. Heat:
 - i) Introduction to heat
 - ii) Application in heat transfer
 - iii) Refrigerator
5. Light
 - i) Introduction to light
 - ii) Theories of light , reflection & refraction
 - iii) Colour-Sources of colour, responses of eye to colour

Unit-II

6. Electricity: Basic electricity, units of electric measurements, Ohm's Law series and parallel connections
7. Effects of electricity- fuse circuit breaker, thermostat, bimetallic and hydraulic automatic steam iron, toaster, hot plate, water heater , water boiler

Unit-III

8. Choice and care of motor driver appliances-Mixer, Blender, Hair dryer
9. Choice and care of motor driver appliances- washing machine and dryer

Unit-IV

10. Classification, selection, use and care of house hold equipment:

- i) Portable and Non-Portable
- ii) Electrical and motor driven/ Non electrical
- iii) Food Related
- iv) Laundry: Washing machine
- v) Cleaning: Vacuum Cleaner
- vi) Recreation
- vii) Hair dryer

11. Certification and Guarantee

RECOMMENDED READING:

- Johnson J B ,Equipments for Modern Living: The McMillon Company
- MohiniSethi: Catering Management An Integrated Approach, Wiley Eastern Ltd
- Poet L : Household Equipment New York,Wiley Eastern Ltd
- Vargese M A : Household Equipment Mannual Bombay, SNDT Womens University

P8- FABRIC CONSTRUCTION AND FINISHING

Course Outcome:

- Understanding techniques and processes involved in fabric construction
- Understanding the principles and processes of finishing fabrics
- Understanding applications and use of various types of fabric finishes for specific purposes

Unit I

1. Fabric construction
2. Structure and working of handloom
3. Weaving process
4. Types of weaves

Unit II

5. Other processes of fabric preparation

- i. Felting
- ii. Braiding
- iii. Netting
- iv. Knitting
- v. Bonding
- vi. Lace

Unit III

6 Definition Classification and purpose of finishes.

7. Finishing of Textiles:

- i. Bleaching.
- ii. Mercerization.
- iii. Weighing and sizing.
- iv. Singeing.
- v. Beetling.
- vi. Calendering.
- vii. Tentering.

Unit IV

- viii. Embossing.
- ix. Napping.
- x. Water resistant and waterproof.
- xi. Crease resistant.
- xii. Sanforization.
- xiii. Moth resistant and Bacteriostate.
- xiv. Antistatic.
- xv. Stain and soil resistant.

RECOMMENDED READING:

- Corbman, P.B. (1983). *Textiles: Fibre to Fabric*. McGraw-Hill Publishers.
- Dantyagi, S. (1996). *Fundamentals of Textiles and their Care*. India: Orient Black

swan Private Limited.

- D'Souza, N. (2014). *Fabric Care*. New Delhi: New Age International Publishers.
- Gohl, E., Vile sky, L. (2003), *Textile Science: an explanation of fiber properties* (2 edition), New Delhi.
- Hollen, R. N., Saddler, J., & Langford, A. (1979). *Textiles*. Macmillan Publishers.
- Joseph, M. (1992), *Introductory Textile Science*. Sixth edition, California: Harcourt College Publishers
- Rastogi, D., & Chopra, S. (2017). *Textile Science*. India: Orient Blackswan Private Limited.

SEMESTER 5

P9 ADVANCE GARMENT CONSTRUCTION

Course Outcome:

- Learning the use of components of garment construction
- Understanding the scientific approach to Anthropometric measurements
- Gaining knowledge about use and handling of various types of fabrics
- Getting acquainted about pattern and pattern making
- Learning and practicing about fitting and common fitting problems

Unit I

1. Taking Measurement:

- i. Anthropometric measure. Concept and importance
- ii. Methods of taking body measurement for different garments.

2. Fabrics for Garment making:

- i. Handling of different types of fabrics.

- ii. Estimation of material required for different garments.

Unit II

3. Working on the Bias

4. Study of garment components and trims

5. Basics of binding, Frills, Braids, Tassel, Pompons and fringe preparation

6. Pattern Making: Techniques of pattern making. Principles and application of flat patterns for different styles.

Unit-III

7. Draping.: concept, requirements, technique, advantages and disadvantages

8. Fitting

- i. Principle of fitting.
- ii. Common fitting problems and remedial methods.

Unit IV

9. Commercial Patterns: concept, Common fitting problems and remedial methods

10. Introduction to Clothing manufacture industry: Concept and basic operation

RECOMMENDED READINGS:

- Anna Jacob: Art of Sewing UBSPD, New Delhi
- Bane A –Tailoring, Mc Graw Hill Publication
- Reader's Digest: Complete Guide to Sewing, Association inc New York
- Majumdar & Vatsala : Textbook of Clothing Construction, ICMR
- Carr & Latham: The Technology of Clothing Manufacture, Blackwell Science

- Doongaji&Deshpandey: Basic Process and Clothing Construction. New Raj Book Depot, New Delhi
- Jindal R: handbook of Fashion Designing
- Frings GS fashion from concept to consumer Prentice Hall Inc New Jersey, United States of America

P10- PRACTICAL

1. Embroidery stitches:
Make samples of different types of stitches
2. Preparation of two consumers items using contemporary embroidery.
3. Pattern making: variation in collars, sleeves, yokes
4. Garments: Gathered frock with Peter pan collar, Salwar kameez, Saree blouse, Nightie

P11X-RESIDENTIAL SPACE DESIGN AND FURNISHING

Course Outcome:

- Understand the various features in period style furniture
- Select and arrange furniture and furnishings in different rooms in residential spaces
- Knowledge on factors influencing planning of life space
- Develop confidence in decorating interiors using furniture and furnishings

Unit 1

1. Family housing needs – protective, economic, affectionale, standard of living, housing goals, function
2. Factors influencing selective and purchase of site for house building:

Legal aspects, location, physical features, soil condition, services, housing
Cost

Unit II

3.
 - a. Principles of house planning – grouping, orientation, circulation, flexibility, privacy, spaciousness, aesthetics, economy, light and ventilation.
 - b. Planning different residential spaces: entrance, living rooms, drawing rooms, bedrooms, store rooms, study rooms, bath room

Unit III

4. Kitchen planning – types of kitchen, planning different work areas in the kitchen.
5. Furnitures:
 - a. Types of furniture.
 - b. Selection of furniture.

Unit IV

6.
 - a. Furnishing : factors affecting furnishing choices.
 - b. Soft furnishing – selection and care of bed linen, table linen
 - c. Curtains and draperies: type, selection and care.
 - d. Floor covering, rugs and carpets. Types, care and cleaning.

RECOMMENDED READINGS:

- Arora. S. P., and Bindra S.P. (2005). *Building Construction*. Delhi: DhanpatRai Publications
- Bhavikatti, S.S., and Chitawadagi, M.V. (2019). (1st Ed.). *Building Planning and Drawing*. Hubli: Dreamtech Press
- Faulkner, R. and Faulkner, S. (1987). *Inside Today's Home*. New York: Rinehart Winston, India.
- Gandotra V., Shukul M., and Jaiswal N. (2011). *Introduction to Interior Design and Decoration*, New Delhi: Dominant publishers, India.

- Jankowsky, W.(2001). *Modern Kitchen Work Book*. New Delhi: Rockport Publishers, India.

P11Y- VALUE EDUCATION

Course outcome:

- Values and its importance in current scenario
- To understand the salient features of life
- Understanding Human Rights
- Identifying social evils
- Using the understanding to spread awareness amongst others to help curb injustice and spread humanity

Unit I

1. Value education-its purpose and significance in the present world
2. Value system – The role of culture and civilization, Holistic living , Balancing the outer and inner, Body, Mind and Intellectual level, Duties and responsibilities.

Unit 2

3. Salient values for life- Truth, commitment, honesty and integrity, forgiveness and love, empathy and ability to sacrifice, care, unity , and inclusiveness, Self esteem and self confidence,punctuality
4. Social Evils -Corruption, Cyber crime, Terrorism , Alcoholism, Drug addiction Dowry Domestic violence, untouchability, female infanticide atrocities against women- How to tackle them

Unit -3

Human Rights -Universal Declaration of Human Rights, Human Rights violations
National Integration–Peace and non-violence

Unit 4

Environment and Ecological balance –Environment and Ecological balance, interdependence of all beings – living and non-living. Environment conservation and enrichment.

Recommended Reading:

M.G.Chitakra: Education and New Delhi,2003 E BOOKS 1 1

https://www.researchgate.net/publication/293755836_VALUE_EDUCATION_NEEDED_OF_THE_HOUR

<http://cbseportal.com/e-books/download-free-ncert-e-book-education-for-values-inschool-a-framework> –

SEMESTER 6

P-12TEXTILE SCIENCE

Course Outcome:

- Understanding scientific and chemical aspect of various types of fibers
- Learning about scientific and chemical aspect of various types of dyeing processes and techniques
- Learning about scientific and chemical aspect of various types of printing processes and techniques
- Developing awareness about scientific aspect of care of fabric

Unit- I

1. Fibres Theory:
 - a. Polymer requirement for fibre formation.
 - b. Primary and secondary properties of textile fibres.
2. Chemistry of Textile fibres-
 - a. Natural Cotton, wool, silk,
 - b. Synthetic –Polyamide, Polyester.

Unit- II

3. Brief study of different types of dye and their application to different fibres.
4. Methods of dyeing:
 - a. Direct Dyeing- fibre, yarn and Fabric.
 - b. Resist Dyeing- Tie and Dye and Batik.
5. Difference between dyeing and printing.

UNIT III

6. Methods of printing- Block, Roller and Screen Printing, Discharge, Photographic, Transfer, Jet, Bubble, Electrophotographic

UNIT IV

7. Fabric Care:
 - i. Classification and Introduction to Laundry Process- wet and dry cleaning.
 - ii. Water and its cleaning action.
 - iii. Soaps and Detergents- Composition and Mode of Action.
 - iv. Additives used in Laundry- optical brightness, blueing agents Vs Fluorescent Whitners.
 - v. Starches, stiffening and softening agents- Various types and their characteristic methods of applications.

Recommended Reading:

- Corbman, P.B. (1983). *Textiles: Fibre to Fabric*. McGraw-Hill Publishers.
- Dantyagi, S. (1996). *Fundamentals of Textiles and their Care*. India: Orient Black swan Private Limited.
- D'Souza, N. (2014). *Fabric Care*. New Delhi: New Age International Publishers.
- Gohl, E., Vile sky, L. (2003), *Textile Science: an explanation of fiber properties* (2 edition), New Delhi.
- Hollen, R. N., Saddler, J., & Langford, A. (1979). *Textiles*. Macmillan Publishers.

- Joseph, M. (1992), *Introductory Textile Science*. Sixth edition, California: Harcourt College Publishers
- Rastogi, D., & Chopra, S. (2017). *Textile Science*. India: Orient Blackswan Private Limited.

P13- TRADITIONAL TEXTILES OF INDIA

Course Outcome:

- Appreciation of diverse and rich textiles heritage of India
- Learning about traditional embroideries from different parts of the country
- Comprehending about traditional textiles from different parts of the country
- Understanding role and significance of khadi
- Scientific knowledge about conservation of textiles

Unit 1

6. Dyed and printed textiles:
Kalamkari (painted and block printed),
Patola, bandhani (tie and dye) of Gujarat and Rajasthan.
Ikat of Orissa

Unit II

7. Woven textiles:
Brocades of Uttar Pradesh
Baluchar of West Bengal
Brocades of South India
Muslin of Bengal
Shawls of Kashmir

Unit III

8. Embroidered Textiles:
Chikankari of Lucknow

Phulkari of Punjab
Kantha of Bengal
Kashidakari of Kashmir
Kasuti of Karnataka
Zari embroidery
Embroidery of Kutch and Kathiawar.

UNIT IV

9. Status of traditional textiles in modern India: Evolution and socio-economic significance of khadi, hand loom and handicrafts sector
10. Intervention by organizations in sustenance of Indian textile craft
11. Conservation of textiles: factors affecting deterioration of textiles, care and storage of textiles

RECOMMENDED READINGS:

- Dar SN Costumes of India and Pakistan. Bombay D B Taraporewala sons & Co Pvt Ltd
- Chattopadhyaya K D: Handicrafts of India Indian Council for Cultural Relations
- Dhamija & Jain: Handwoven Fabrics of India . Ahmedabad Mapin Publishing Pvt Ltd
- Bhatnagar P Traditional Indian Costumes & Textiles India Abhishek publications Chandigarh

P14X-TECHNIQUES OF WORK SIMPLIFICATION

Course Outcome:

- Understanding on the concepts related to family resource management
- Appreciation of the significance of management process in efficient use of resources
- Imbibing nuances of human values and standards for successful management and decision making
- Focus on management of human energy as a family resource

Unit I

1. Energy Management:
 - a) Importance
 - b) Fatigue-types, Measures to relieve fatigue
 - c) Process

Unit II

2. Work simplification
 - a) Importance
 - b) Steps of work simplification
 - c) Advantages and disadvantages
 - d) Principles of work simplification
 - e) Techniques of work simplification:
 - Pathway chart
 - Process chart
 - Operation chart
 - Micro motion film analysis

Unit III

3. Work simplification studies for home making
4. Mundell's Classes of change in method of work

Unit IV

5. Ergonomics:
 - i) Introduction, definition, scope, application, principles
 - ii) Postures : importance of correct postures
 - iii) Ergonomic work station

RECOMMENDED READINGS:

- Bhargava, B. (2005). Family Resource Management and Interior Decoration, Jaipur: Apple Printer and V. R. Printers

- Deacon, R. F., and Firebaugh, F.M. (1975). Home Management: Contexts and Concepts. Boston: Houghton Mifflin Company.
- Fitzsimmons, C. (1950). The Management of Family Resources. California: W. H. Freeman Co.
- Gandotra, V., and Jaiswal, N. (2008). Management of Work in Home, New Delhi: Dominant Publishers and Distributors. (ISBN No. 81-7888-526-3)
- Grandjean, E., and Kroemer, K.H.E. (1999). Fitting the Task to the Human - A Text Book of Occupational Ergonomics, New York: Taylor and Francis
- Gross, I.H., Crandall, E. W. and Knoll, M. M. (1980). Management for Modern Families. New Jersey: Prentice Hall Inc.
- Gross, I.H., and Crandall, E. W. (1967). Management for Modern Families. Delhi: Sterling Publishers.
- Koontz, H., and O'Donnell C. (2005), Management – A Systems and Contingency Analysis of Managerial Functions. New York: McGraw-Hill Book Company

P14Y-COSTUMES OF INDIA

Course Outcome:

- Appreciation of Indian Traditional Textile and Clothing culture
- Understanding the physical, geographical, cultural influence on costumes
- Acquiring specific knowledge about characteristics of traditional state marriage and dance costumes of India
- Application of traditional costume and textiles in contemporary context

Unit- I

1. Costumes of Children (Infant to School going) Importance of clothing, psychological effect of clothing on children, effect of clothing and child's growth.

2. Factors to be considered while selecting and making children's garments

- a. Desirable features in children's clothing- safety and health.
- b. Functional design for creeping age.
- c. Garments for creeping to school going children.

3. Clothing for pre adolescents to aged people, expectant and nursing mother

Casual Wear, Night Wear, Sport wear and Executive wears.

4. Factors affecting selection of clothing like budget, season, occupation, fashion occasion etc

Unit- II

5. A brief history of Indian costumes: Indus valley civilization costumes to Satvahana period

6. A brief history of Indian costumes: Kushana Period costumes to Mughal period costumes

UNIT III

7. Details of traditional costumes of men and women of- different states- Uttar Pradesh, Kashmir, Punjab, West Bengal, Maharashtra, Gujarat.

UNIT – IV

8. Traditional Dance Costumes: Bharatnatyam, Manipuri, Odissi, Kathak and Kathakali.

9. Marriage Costumes of Different States: Uttar Pradesh, Kashmir, Punjab, West Bengal, Maharashtra, Gujarat.

RECOMMENDED READINGS:

- Biswas S Indian Costumes Ministry of information and Broadcasting, Government of India
- Dar SN Costumes of India and Pakistan. Bombay D B Taraporewala sons & Co Pvt Ltd
- Chattopadhyaya K D: Handicrafts of India Indian Council for Cultural Relations
- Dhamija & Jain: Handwoven Fabrics of India . Ahmedabad Mapin Publishing Pvt Ltd

- Bhatnagar P Traditional Indian Costumes & Textiles India Abhishek publications Chandigarh

SEMESTER 7

TEXTILES & CLOTHING

P15- APPAREL DESIGNING

Course outcome:

- To understand various aspects of designing with reference to apparel designing
- To understand concept of Fashion apparel
- To understand Fashion apparel product development
- To develop basic understanding of Indian Fashion Scenario

Unit- I

1.Introduction to apparel designing

2.Introduction to Designs: definition and Classification of design

3.Essentials of design: Elements of design and principles of design – their use in apparel design.

Unit- II

4.Introduction to elements of Fashion

1. Fashion Terminology
2. Fashion Cycle
3. Sources of Fashion
4. Factors favouring and retarding Fashion cycle
5. Theories of Fashion adaptation
6. Current trends and styles in Fashion

Unit – III

7.Process of Fashion apparel product development

8.Basics of fashion apparel illustration like stick figures, block figures

9.Accessories: Hats and headgear, footwear, bags and purses and jewellery.

Unit- IV

10.Basic requirements of a designer

11. Indian Apparel designers

12.Basics of fashion Business

RECOMMENDED READINGS:

Abling, B., (2006), Marker rendering for fashion, accessories and home fashions, Fairchild publications, New York. •

Abling, B., (2003), The Fairchild Encyclopedia of fashion accessories, Fairchild publications, New York.

• Celia S., (2004), Know your fashion accessories, Fairchild publications, New York. • Hideaki, C., (1992), Colour Harmony-a guide to creative colour combinations, Rockport publishers, London.

• McCall's (1982). McCall's Big Book of Needlecrafts. Chilton Book Company. Randn, Pennsylvania. USA.

Frings GS fashion from concept to consumerPrentice Hall Inc New Jersey, United States of America

P16- BASICS OF TEXTILES QUALITY CONTROL

Course Outcome:

- To develop an understanding of methods and techniques used to analyse textile fibers, yarns and fabrics for end use performance

- To acquire knowledge and understanding of various structural properties of textiles and relate them to end use fabric performance and product
- To familiarize students with the different testing equipments, their underlying principles
- To develop understanding of the importance of quality control in textile testing

Unit I

1. Importance of Textile Testing and analysis, objectives (reasons) of textile testing, Uses of Testing information, Factors influencing Quality Control
2. Sampling, terms used in sampling, fiber sampling, yarn sampling, fabric sampling Development of standard test methods, atmospheric conditions for textile testing, temperature and humidity, measurement of humidity and moisture in textiles

Unit II

3. Textile properties that influence fabric performance – fiber structure, yarn structure and fabric structure.
4. Fiber Fineness, Methods of measuring fiber fineness Fiber length, methods of measuring fiber length Fiber strength – Single fiber method, Bundle strength method

Unit III

5. Yarn Twist – Level of twist and twist factor methods of measuring twist, yarn evenness and methods of assessing evenness
6. Yarn strength – Single strand method skein method, count strength product (CSP)
7. Strength properties of Textile – Terminologies and definitions like force units, Breaking strength and Tensile strength, Stress, Tenacity, Elongation, Strain, Extension, Extension percentage, Gauge length, Elastic recovery

Unit IV

8. Fabric Test Methods – Breaking strength, Tearing Strength, Bursting strength

9. Fabric Handle and Drape – definitions, methods of measuring fabric stiffness - Shirley stiffness test, Hanging loop method Drape, drape meter

10. Crease Resistance and Crease Recovery – definitions of terms, advantages of giving resin treatment to fabrics,

RECOMMENDED READINGS

- Principles of Textile Testing – J.E. Booth, Newness Butterworth, London
- Textile Testing and Analysis – Billie J. Collier and Helen E. Epps, Prentice Hall, New Jersey
- Textile Testing – John H. Skinkle, Brooklyn, New York
- Handbook of Textile Testing and Quality Control – Groover and Hamby
- An Introduction to Quality Control for Apparel Industry – Pradip V. Mehta, Marcel Dekker, New York
- Textile Testing & Quality Control Standards like – BIS, BS, ASTM, ISO, AATCC, etc.

P17- CREATIVE AND APPLIED ARTS

Course Outcome

- Appreciate aesthetics of arts and crafts
- Develop and practice nuances of creative arts
- Inculcate skills through hands – on experience in applied arts
- Understand and appreciate major work of artists.

UNIT I

1. Introduction to Visual Art : Meaning and philosophy of art; categories of art related to interior design and architecture: visual, plastic, decorative, applied arts

2.Type of arts and designs – Visual art and graphic art; visual design and graphic design

Unit II

3.Materials Used in Works of Art :Materials and their use in applied arts – wood, earthenware, ceramics, glass, plastics and metals.

4.Introduction to Art Forms

Concept of design; ABC of basics of design – Aesthetics, Basic design and Creativity: their significance in design development .

UNIT III

5.Two dimensional art forms: Graphics: Meaning, types – hand process and mechanical process- relief, intaglio, planography

6.Three dimensional art forms: Sculpture: meaning, types – relief, free standing, Process in sculpture – subtractive, additive and replacement

UNIT IV

7.Applied Arts for Functional/ Aesthetic Use

Painting – water, oil, pot, Madhubani, Worli,

Pottery

Puppetry

Jewelry making

3D printing

RECOMMENDED READINGS

- Antonelli, P. (2005).Humble Masterpieces: Everyday Marvels of Design.London: Harper Design
- Asher, F.M. (2003). Art of India – Prehistory to the Present. Encyclopedia Britannica Inc.
- Campbell, G. (2006).The Grove Encyclopedia of Decorative Arts. New York: Oxford University Press

- Chaudhari, S.N. (2005). Interior Design. Jaipur: Aavishkar Publishers,.
- Faulkner, R. (1956). Art Today – An Introduction to the Fine and Functional Arts. New Delhi: Rinehart and Winston
- Faulkner, R., and Faulkner, S. (1986). Inside Today's Home. New York: Rinehart

P18- TECHNICAL TEXTILES

Course Outcome:

- To familiarise the students with technical textiles and its future prospects
- To acquaint the students with technical fibers, yarns and fabric structure
- To familiarise student with various application of technical textiles

UNIT I

1. Technical Textiles Introduction Definition & Scope, Development Processes, Applications, Globalizations, Future prospects of technical textile industry

2. Brief introduction to Technical fibers – Conventional and New developed fibers and their applications

Unit II

3. Brief introduction to Technical yarns

4. Technical Fabric Structures – different methods of web laying, flash spinning, melt blown, different methods of bonding,

Unit III

5. Brief introduction to Textile Reinforced – Finishing of Technical Textiles - Introduction, Processes, Mechanical, Heat setting and Chemical process

6. Coating of Technical textiles – Introduction, methods of coating, fusible interlining and laminating

Unit IV

7. Application of Technical Textiles – Medical textiles, Geo textiles, Sports Textiles Protective, Automotive textiles and others

RECOMMENDED READINGS:

- Handbook of Technical Textiles by A R Horrocks and S C Anand
- Technical Textiles – C Byrne, Textiles Marg issue 2.95, 1995
- Handbook of Textile Fibers, Manmade Fibers – JG Cook, 5th edition, Merrow 1984
- 6. Woven Cloth Construction – AT Robinson and R Marsh, The Textile Institute
- Manchester, 1973
- 6. Contribution of Knitting to Current & Future Developments in Technical Textiles
- S C Anand, Conference of Technical Textiles Group, The Textile Institute
- Josephs Introductory Textile Science by P B Hudson HBJC Publishers New York

P19X- ENTREPRENEURSHIP MANAGEMENT

Course Outcome:

- Development of concept of Enterprise and Entrepreneurship
- Development of Understanding of scope of Entrepreneurship in area of Textiles and Clothing
- Development of Understanding of process of Entrepreneurship in area of Textiles and Clothing
- Development of Understanding of support institutions to promote Entrepreneurship

UNIT I

1. Definition and concept of Entrepreneurship, difference between Wage Employment, self employment and Entrepreneurship
2. Role of entrepreneurs in development of apparel and fashion industry in India.
3. Role of women entrepreneurs: opportunities and problems

UNIT II

4. Qualities of personality of an entrepreneur
5. Entrepreneurial motivation
6. Process of Enterprise development and management
 - a. Identification of opportunity
 - b. Preplanning of formalities
 - c Preparation of preliminary project report

UNIT III

- d. Basics of Costing and pricing
- e. Basics of Production management
- f. Basics of Marketing management
- g Basics of Human Resource management

UNIT IV

- h. Basics of Finance management
- i. Ergonomical safety & security
7. Patent Rules, Environmental considerations and social responsibilities.
8. Role of support institutions to promote small entrepreneurs

RECOMMENDED READINGS:

- Kaulgud A Entrepreneurship management
- Ormerod A Textile Project Management, the Textile Institute, 1992.
- SangramKeshariMohanti Fundamentals & Entrepreneurship: 2009: PHI learning.
- Vasanth Desai the dynamics of entrepreneurial development & Management: 6th edition Himalaya publish house. 2009.
- Franklin, T. Principles of Management, AITBS, 2002

P19y-FASHION MARKETING AND MERCHANDISING

Course Outcome:

- To impart knowledge about Fashion Market
- To impart knowledge about Various channels of marketing
- To impart knowledge about promotion and branding
- To impart knowledge about Customer relationship management

UNIT I

- 1.Introduction to retail marketing management and merchandizing
- 2.Terminologies used in fashion merchandising
- 3.Fashion retailing- history, scope, importance, types

Unit II

- 4.Channels of distribution
- 5.Marketing types: 4Ps
- 6.Fashion promotion methods

Unit III

- 7.Systematic merchandising: concept, various steps
- 8.Brand building: Introduction, strategies

Unit IV

- 9.Visual merchandising: Interior, exterior display, store planning, props and promotion
- 10.Customer relationship management

RECOMMENDED READINGS :

- Laura L Bliss, Study Guide to Visual Merchandising and Display, fair child Publication
- Gibson , G Vedomani, Retail Management, Jaico Publishing House, Bangalore
- Castelino M Fashion Kaleidoscope, Rupa & Co

FAMILY RESOURCE MANAGEMENT

P15- PLANNING AND DESIGNING INTERIOR SPACE

Course Outcome:

- Develop comprehension on the nuances of design, design elements and principles
- Draft house plans based on standard guidelines and principles
- Understand space design organization for optimum comfort and functionalism.
- Evaluate residential interior space for aesthetic and ergonomic feasibility

UNIT I: Design Fundamentals in Designing Interior Space

- 1.1 Life space and Proxemics – significance in interior space designing
- 1.2 Concept and meaning of aesthetics, perception and good taste in designing
- 1.3 Interior design Vs interior decoration
- 1.4 Design: Definition, types and classification
- 1.5 Plastic elements - elements of design – application in interiors
- 1.6 Rudiments of design - Principles of design – application in interiors

UNIT II: Aesthetic and Functional Considerations in Designing Interior Space

- 2.1 Colour– definition, colour spectrum, Prang Colour system, classification of colours, colourharmonies – use and application in interiors. Factors influencing choice of colours

- 2.2 Furniture – definition, importance, classification, styles, use, factors influencing selection and placement, case goods Vs upholstered furniture, ergonomically designed furniture, modular units, multi - purpose furniture; concept of furniture detailing
- 2.3 Lighting – Sources, kinds and types of lighting, requirements of good lighting, use/ role, brightness - measurement for adequacy, avoidance of glare and shadow
- 2.4 Soft furnishings in the interior – definition, classification and use in different areas; window treatments- hard and soft
- 2.5 Accessories in the interior – definition, functions, use and classification; role in completing a design needs in an interior
- 2.6 Creating interface between interior and exterior - Introducing flower arrangements, indoor plants, Bonsai and hydroponics

Unit III: Concept of Housing

- 3.1 Definition, importance and functions of a house; Family's housing needs; Housing as a symbol of standard of living
- 3.2 Sustainable Development Goals (SDGs) - Pollution and Environment protection, Acts (EPA)
- 3.3 Housing shortage and housing problems in India
- 3.4 Housing standards- role of ISI and BIS
- 3.5 Residential structural features of Indian houses and cultural influences

Unit IV: Constructional Considerations in Designing Interior Spaces

- 4.1 Selection of site for houses: Factors influencing and legal aspects

4.2 Principles of planning, space allocation and organization in independent houses, apartments and flats

4.3 Concept of green buildings and eco-friendly materials as modern trends in building construction

4.4 Waste disposal methods and provisions

4.5 Rain water harvesting units

4.6 Safety features – concept of BIMs, IAQ, fire safety, exhausts/ alarms

4.7 Ergonomic considerations ensuring health and safety of inmates

4.8 Fixtures, fittings and operating shutters

4.9 Spatial organization considerations with special reference to people with disabilities (PWD)

RECOMMENDED READINGS :

- Alexander. N.J., (1972). *Designing Interior Environment*. New York: Harcourt Brace, Johanovich Inc.
- Ball, V. K. (1982). *Art of Interior Design*. New York: John Wiley & Sons
- Bhargava, B. (2001). *Family Resource Management and Interior Decoration*, Delhi: University Book House
- Bhargava, B. (2001). *Housing and Space Management*. Jaipur: University Book House Ltd.
- Bharucha, E. (2005). *Text Book of Environmental Studies*. University Grants Commission,
- Bhatt P.D., and Goenka S. (1990). *Foundation of Arts Design*. Bombay: Lakhari Book Depot,
- Bonda P. and Sonsnowchik K. (2007). *Sustainable Commercial Interiors*. Jaipur: John Wiley and Book House Ltd,

Chauhan, B.C. (2008). *Environmental Studies*. New Delhi: University Science Press,

.P16-ERGONOMICS

course outcome:

To familiarize the student who come from different educational backgrounds with basic technology inputs and engineering fundamentals. This will help student in understanding other vital subject of Garment Manufacturing Technology discipline which demand the knowledge of basic engineering principles.

UNIT-1

1. Ergonomics development:
 - 1.1 Definition of ergonomics
 - 1.2 History of ergonomics
 - 1.3 Standards

UNIT-2

2. Ergonomic conditions of work
 - 2.1 Physiological conditions
 - 2.2 Psycho-sociological conditions
 - 2.3 Anthropometric conditions
 - 2.4 Ecological conditions

UNIT-3

3. Ergonomic principles
 - 3.1 Ergonomic principles in designing workplace
 - 3.2 Ergonomic principles in designing working processes
 - 3.3 Ergonomic principles in determining working time
 - 3.4 Ergonomic principles in handling material and tools
 - 3.5 Ergonomic principles in designing environment

UNIT-4

4. Ergonomic design of workplace in garment industry
 - 4.1 Ergonomics in the storage of textile materials
 - 4.2 Ergonomics workplaces in garment manufacture preparation
 - 4.3 Ergonomics in cutting room

4.5 Ergonomics in sewing room

4.5 Ergonomics in finishing room

4.6 Ergonomics workplaces in garment warehouse and distribution

4.7 Ergonomics workplaces in the clothing store 4.8 Ergonomics maintenance workplaces

RECOMMENDED READINGS :

- Ergonomics in the garment industry BY Dr. Gordana Colovic
- Human Factors In Engineering and Design Seventh Edition by Mark S. Sanders, Ph.D. California State University, Northridge Ernest J. McCormick, Ph.D. Late Professor Emeritus of Psychological Sciences. Purdue University
- Grandjean, E., and Kroemer, K.H.E. (1999). *Fitting the Task to the Human - A Text Book of Occupational Ergonomics*, New York: Taylor and Francis
- Singh, S. (2007). *Ergonomics Integration for Health and Productivity*. New Delhi/ Udaipur: Himanshu Publication
- Pheasant, S. & Haslegrave, C., (2005). *Body Space: Anthropometry, Ergonomics, and the Design of Work*, 3rd Ed. CRC Press.
- Kroemer, K.H.E., *Fitting the Human: Introduction to Ergonomics*, CRC Press
- Freivalds, A., *Neibel's Methods, Standards and Work Design*, McGraw Hill.

P17-PERSONAL FINANCE AND CONSUMER STUDIES

Course Outcome:

- Provide situations to understand significance of family income and expenditure and saving for future
- Register and react as responsible consumers
- Analyze relevance of consumer movement in India
- Becoming familiarized to the changing trends in consumerism

- Enriched Knowledge on market systems
- Emerge as informed consumers
- Review the benefits of planned financial management

Unit I Consumer and the Market

1.1 Consumer: definition and meaning; consumer Vs customer

1.2 Role of consumers in the economy, National Income, Per Capita Income, Household wise distribution of income

1.3 Classification of Consumer goods

1.4 Consumer and the market: definition and classification of markets, types

1.5 Consumer behaviour: changing nature of consumer behaviour to suit modern market and business trends – concepts of C2C, B2B, B2C, C2B etc; Factors influencing Consumer behavior

1.6 Change in consumer purchase practices in the digital market – concept of e-commerce, m-commerce, online shopping etc; Extended use of plastic currency and cards

Unit II Household Income and Expenditure

2.1 Household Income – Types, Sources, Supplementation of family income, use of family income, per capita income

2.2 Household expenditure: Items of expenditure, mental and written plans, Factors influencing expenditure pattern, expecting exigencies and tackling them

2.3 Account maintenance: methods of account keeping like balance sheets, account books, ledgers, income-expenditure records

2.4 Process of budgeting- steps in drafting a family budget, balancing income and expenditure, ways to meet emergent expenses

2.5 Personal finance management: Tax implications: significance in budgeting, measures adopted and instruments used to ensure tax benefits, calculation of personal income tax for an individual's monthly income

2.6 Engel's Laws of consumption, drafting well balanced family budgets

Unit III: Family Savings and Credit practices

3.1 Consumer credit- Concept, meaning, need, sources, credit cards, credit services availed by the family members, types of loans availed by families

3.2 Mortgages: Definition and conceptual meaning, significance in meeting emergent needs of expenditure

3.3 Financial security arrangements: Family savings and investments- need ,principles, channels of investment

3.4 Savings and savings institutions, merits and demerits of each

3.5 Guidelines for wise savings practices

Unit IV: Consumerism in India

4.1 Consumerism: genesis, reasons for consumer movement

4.2 Consumer problems – types, nature , causes and solutions

4.3 **Concern for the Consumer : Consumer education:** Meaning and definition; need and scope, objectives, aspects, methods, contents and resources, Problems

4.4 Consumer education and empowerment: meaning, need and achievements with specific relevance to India

4.5 Role of advertisements influencing consumer behaviour

- 4.6 Product labeling and packaging – significance to fair practices
- 4.7 Unfair consumer practices: adulteration and faulty weights and measures
- 4.8 **Green Consumerism**-Meaning and importance with respect to consumerism, need, consideration in daily consumption and significance, ethos of adopting sustainable/eco-friendly lifestyle as green consumers

Consumer Protection

- 5.1 Consumer protection: concept, need and significance
- 5.2 Consumer rights and responsibilities in India
- 5.3 Consumer organizations – origin, functioning, role and types
- 5.4 Standardization and quality control measures: Role of ISI, FPO, AGMARK, ISO, Eco mark, Wool mark, Silk mark, Cotton mark, Handloom mark, BEE Star labeling and others
- 5.5 Consumer Protection Act 2019

RECOMMENDED READINGS:

- Gupta, C.B., and Nair, R.N. (2004). *Marketing Management*. New Delhi: Sultan Chand and Sons
- Kathiresan, S., and Radha, V. (2004). *Marketing*. Chennai: Prasanna Publishers
- Khanna S.R., Hanspal S., Kapoor S., & Awasthi H.K. (2007). *Consumer Affairs*. New Delhi: Universities Press India Pvt.Ltd.
- Nair R., and Nair S, R. (2003). *Marketing*. New Delhi: Sultan Chand and Sons
- Nair, S (2002). *Consumer Behaviour*. New Delhi: Sultan Chand and Sons
- Pattanchetti, C.C., and Reddy (2002). *Principles of Marketing*. Coimbatore: Rainbow Publishers
- Sawhney, H.K., & Mital, M. (2007). *Family Finance & Consumer Studies*. New Delhi: Elite Publishing House Pvt. Ltd.

P18- HOUSE KEEPING

Course Outcome

Register and react as responsible consumers

Analyze relevance of consumer movement in India

Gain knowledge on consumer protection Laws and Acts and reflect upon personal rights and responsibilities

Unit I

Introduction and importance of hospitality

Cleaning agents, selection and use for different surfaces, cleaning equipments

Types of cleaning: daily weekly, yearly

Cleaning techniques

Unit II

Linen- types and selection,

soft furnishing: selection , care , maintenance of mattresses pillows blanckets and bed covers

Furniture: selection, Types , build in duel purpose, arrangement in different rooms

Unit III

Window treatment, draping fabric : selection and care, hanging of curtains, pelmet, swag valances and their effect

Carpets: types selection, care and cleaning and stain removal

Unit IV

Lightening: types, suitability for various activities, effects created through lightening

Lightening for different areas

Accessories: various types and their place in interior decoration, painting sculptures, pots

Kitchen, garden

RECOMMENDED READINGS:

Register and react as responsible consumers • Analyze relevance of consumer movement in India • Gain knowledge on consumer protection Laws and Acts and reflect upon personal rights and responsibilities

Verma, B.P. (2003).Civil Engineering Drawing, Drawing and House Planning. New Delhi: Khanna Publishers

Seetharaman, P., and Sethi, M. (2001).Consumerism: Strength and Tactics. New Delhi: CBS Publishers.

P19X- ENTREPRENEURSHIP MANAGEMENT

Course Outcome:

- Development of concept of Enterprise and Entrepreneurship
- Development of Understanding of scope of Entrepreneurship
- Development of Understanding of process of Entrepreneurship
- Development of Understanding of support institutions to promote Entrepreneurship

UNIT I

1.Definition and concept of Entrepreneurship, difference between Wage Employment, self employment and Entrepreneurship

2.Role of entrepreneurs in economic development of India.

3. Role of women entrepreneurs: opportunities and problems

UNIT II

4. Qualities of personality of an entrepreneur

5. Entrepreneurial motivation

6. Process of Enterprise development and management

a. Identification of opportunity

b. Preplanning of formalities

c. Preparation of preliminary project report

UNIT III

d. Basics of Costing and pricing

e. Basics of Production management

f. Basics of Marketing management

g. Basics of Human Resource management

UNIT IV

h. Basics of Finance management

i. Ergonomical safety & security

7. Patent Rules, Environmental considerations and social responsibilities.

8. Role of support institutions to promote small entrepreneurs

RECOMMENDED READINGS:

- Kaulgud A Entrepreneurship management
- Ormerod A Textile Project Management, the Textile Institute, 1992.
- SangramKeshariMohanti Fundamentals & Entrepreneurship: 2009: PHI learning.

- Vasanth Desai the dynamics of entrepreneurial development & Management: 6th edition Himalaya publish house. 2009.
- Franklin, T. Principles of Management, AITBS, 2002

P19Y- GARDEN AND LANDSCAPE DESIGNING

Course Outcomes

- Distinguish different ornamental plants and their commercial/ aesthetic significance
- Comprehend methods of propagation and commercialization of ornamental plants
- Analyse value addition of ornamental plants and flowers for aesthetics and entrepreneurship
- Draft sketches/ drawings/layouts of various gardens

Unit I

Concept and Classification of Landscape Garden .

Types of Gardens -English garden, French garden, Mughal garden, Japanese garden, Italian garden and Persian garden

Unit II

Layout and Design Principles in Landscape Layout

Design Elements-Line, Form, Color, Texture, Space and Pattern in garden layouts

Beauty Principles-Balance, Proportion, Scale, Rhythm and Harmony – adoption in garden and landscape layouts

Unit III

Components of Landscape Designing

Classification of ornamental plants: Annual, Biennial and Perennial

Lawn: meaning and importance of lawn,

types of lawn grass , plants suitable for lawn and ready to use lawn

Unit IV

Indoor Gardening, Garden Décor and Adornment

Factors considered for growing indoor plants, selection and placement ,types of indoor plants ,care and maintenance :temperature, light, water, air, nutrients and space.

Prospects for entrepreneurship –Running nursery, making eco friendly bags/baskets, Other saleable products - plants (saplings, seedlings), cut flowers, value added products like flower arrangement, bouquet.

RECOMMENDED READINGS

- Ashraf, A. M. (2010). A Handbook of Landscape Gardening and Environment.India:Agrobios
- Bose et al., (2011).Floriculture and Landscaping. Calcutta: Allied Publishers
- Bruce, S. (2016).Thinking about Landscape Architecture: Principles of Design Profession for the 21st Century. London: Routledge Taylor and Francis group
- Carols, S. (2017). Eco Landscape Design. UK: Scitus Publisher
- Encyclopaedia of Landscape Design (2017). Planning, Building and planting Your Perfect Outdoor Space. New Delhi: DK Publishers
- Kumar, N. (2010).Introduction to Horticulture.Nagarcoil: Rajalakshmi Publications

CC/CV-RESEARCH METHODOLOGY

Course Outcome:

- On completion of this course, students will be able to apply statistical tools in various fields in their practical life.
- They will be able to derive various statistical measures, interpret the data through Bar diagrams, visualize the correlation between the variables and thus can apply these statistical techniques in their reports or researches.

UNIT I

1. RESEARCH: meaning, objectives, characteristics & significance. 2. TYPES OF RESEARCH: qualitative & quantitative.

UNIT II

2. RESEARCH PROBLEMS: definition and statement, selection of the problem, evaluation of the problem.

3. RESEARCH PROPOSAL: research proposal or synopsis, introduction, procedure for collecting and treating data, bibliography, time and budget schedule, REVIEW OF RELATED LITERATURE: purpose of the review.

UNIT III

4. SAMPLING: Concept, significance and types of sampling

5. DATA COLLECTION

DATA: - qualitative and quantitative

Sources of Data Collection- Primary and Secondary

Methods of Data Collection: Objective and Projective techniques

Observation, interview, questionnaire, sociometric techniques.

TOOLS: - questionnaire and schedule, checklist and rating scale

UNIT IV

6. RESEARCH REPORT: significance of report writing , types of report, different steps in report writing , layout of the research report, general format, style and

format of writing , typing of research report , proof reading of the final draft , precautions of writing research reports.

RECOMMENDED READINGS:

- Best, JW and Kahn, JV (1992) Research in Education.6th ed. New Delhi, Prentice Hall of India Pvt.Ltd,.
- Kothari, CR (2004) Research Methodology, Methods & Techniques, 2nd ed. New Age International Publishers.
- Goode, WJ and Hatt, PK (1981) Methods in Social Research, McGraw Hill International Editions, Sociology Series.

SEMESTER 8

Major Project