

Bachelor of Arts (Honours) Home Science under CBCS

PATNA UNIVERSITY, PATNA

Programme Code:

Programme Outcome

At the completion of the programme, students will attain the ability to:

- **PO1**: Understand and appreciate the role of interdisciplinary sciences in the development and well-being of individuals, families and communities.
- **PO2**: Understand the application of science and technologies which can enhance the quality of family life.
- PO3: Acquire professional and entrepreneurial skills for personal and professional empowerment.
- **PO 4:** Develop the ability to address the complexities and interface among of self, societal and national priorities.

Programme Specific Outcome

At the completion of the programme, students will attain the ability to:

- **PSO1**: Demonstrate abilities involved in acting as proactive agents of change in promoting the discipline of Family and Community Sciences.
- **PSO2**: Demonstrate inclination toward acquiring knowledge and doing in-depth studies on allied subjects of Home Science, for instance Ergonomics in Resource Management; Chemistry in Textiles and Clothing.
- **PSO3**: Explore and decide upon viable avenues of self-employment and entrepreneurship plus career options in different facets of Home Science disciplines.
- PSO4: Analyze and apply research findings for the use of societal needs and contribute to nation building strategies

Course Structure

Semester -I

Sl.	Name of the Course	Type of	L-T-P	Credit	Marks
No.		Course			
1	Food Science & Nutrition (Th)	CC-1(Th)	4-1-0	4	100
2	Food Science & Nutrition (P)	CC-1(P)	0-0-6	2	100
3	Fundamentals of Human Development (Th)	CC-2(Th)	4-1-0	4	100
4	Fundamentals of Human Development(P)	CC-2(P)	0-0-6	2	100
5	English Communication/MIL	AECC-1	2-1-0	2	100
6	Generic Elective- 1(Th)	GE-1(Th)	4-1-0	4	100
7	Generic Elective-1(P)	GE-1(P)	0-0-6	2	100
				Tota	l Credit-20

Semester-II

Sl.	Name of the Course	Type of	L-T-P	Credit	Marks
No.		Course			
1	Resource Management Concepts and	CC-3(Th)	6-1-0	6	100
	Context(Th)				
2	Human Physiology(Th)	CC-4(Th)	6-1-0	6	100
3	Environmental Science	AECC-2	2-1-0	2	100
4	Generic Elective- 2(Th)	GE-2(Th)	4-1-0	4	100
5	Generic Elective-2(P)	GE-2(P)	0-0-6	2	100
				Total	Credit-20

Semester-III

Sl.	Name of the Course	Type of	L-T-P	Credit	Marks
No.		Course			
1	Communication & Extension (Th)	CC-5(Th)	4-1-0	4	100
2	Communication & Extension(P)	CC-5(P)	0-0-6	2	100
3	Introduction toTextile (Th)	CC-6(Th)	4-1-0	4	100
4	Introduction toTextile (P)	CC-6(P)	0-0-6	2	100
5	Dietetics (Th)	CC-7(Th)	4-1-0	4	100
6	Dietetics (P)	CC-7(P)	0-0-6	2	100
7	Skill Enhancement Course-1	SEC-1	2-1-0	2	100
8	Generic Elective- 3 (Th)	GE-3(Th)	4-1-0	4	100
9	Generic Elective-3 (P)	GE-3(P)	0-0-6	2	100
				Tota	l Credit-26

Semester-IV

Sl.	Name of the Course	Type of	L-T-P	Credit	Marks
No.		Course			
1	Child Psychology (Th)	CC-8(Th)	6-1-0	6	100
3	Family Finance & Consumer Behavior (Th)	CC-9(Th)	6-1-0	6	100
5	Non Formal, Adult and Lifelong Education(Th)	CC-10(Th)	6-1-0	6	100
7	Skill Enhancement Course-2	SEC-2	2-1-0	2	100
8	Generic Elective- 4(Th)	GE-4(Th)	4-1-0	4	100
9	Generic Elective-4(P)	GE-4(P)	0-0-6	2	100
				Total	Credit-26

Semester -V

Sl.	Name of the Course	Type of	L-T-P	Credit	Marks
No.		Course			
1	Research Methodology in Home	CC-11(Th)	4-0-0	4	100
	Science(Th)				
2	Research Methodology in Home	CC-11(P)	0-0-2	2	100
	Science(P)				
3	Planning & Designing interior space(Th)	CC-12(Th)	4-0-0	4	100
4	Planning & Designing interior space(P)	CC-12(P)	0-0-2	2	100
5	Discipline Specific Elective-1(Th)	DSE-1(Th)	4-1-0	4	100
6	Discipline Specific Elective-1(P)	DSE-1(P)	0-0-4	2	100
7	Discipline Specific Elective-2(Th)	DSE-2(Th)	4-1-0	4	100
8	Discipline Specific Elective-2(P)	DSE-2(P)	0-0-6	2	100
				Tota	l Credit-24

Semester-VI

Sl.	Name of the Course	Type of	L-T-P	Credit	Marks
No.		Course			
1	Clothing Construction(Th)	CC-13(Th)	4-0-0	4	100
2	Clothing Construction(P)	CC-13(P)	0-0-2	2	100
3	Early Childhood Care and Education (Th)	CC-14(Th)	4-0-0	4	100
4	Early Childhood Care and Education (P)	CC-14(P)	0-0-2	2	100
5	Discipline Specific Elective-3(Th)	DSE-3(Th)	4-1-0	4	100
6	Discipline Specific Elective-3(P)	DSE-3(P)	0-0-6	2	100
7	Discipline Specific Elective- 4(Project/Dissertation)	DSE-4	0-0-6	6	100
	-	<u>. </u>		Tota	l Credit-24

Total Credits-140

*L/T/P: number of classes per week

 $DSE/GE \ may \ either \ carry \ 6 \ credit, \ i.e., \ \textit{Theory} \ (\textit{4 credit}) + \textit{Practical} \ (\textit{2 credit}) \ \textit{format}$

Discipline S	pecific	Elective	Course	(DSE)):
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Course name		L-T	`-P	
			_	
Generic Elective (GE)):			
For Home Science Stude	nts	For Other Students		
Course name	L-T-P	Course name		L-T-P
Skill Enhancement C	ourse (SEC):			

SEMESTER – I

CC1: Food Science and Nutrition

Course Outcomes

After the completion of the course, the students will be able to:

- **CO1:** Summarize and critically discuss and understand both fundamental and applied aspects of Food Science and Nutrition.
- **CO2:** Able to explain functions of specific nutrients in maintaining health.
- CO3: Identify nutrient specific force and apply the principles from the various factors of foods and related disciplines to solve practical as well as real world problems.
- CO4: Use current Information Technologies to locate and apply evidence-based guidelines and protocol and get imported with critical thinking to take leadership roles in the field of health, diet special nutritional needs and nutritional counseling.

	CC1: Food Science and Nutrition (Theory: 4 credits)	
Unit	Topics to be covered	No. of Lectures
1	Introduction of Food Groups, Food Pyramid and Cooking Methods • Definition and Terms used in Food Science and Nutrition Health, Food, Nutrition, Nutrients: Macronutrients (Carbohydrates, Proteins and lipids) and Micronutrients (Vitamins and Minerals), and Malnutrition.	08
	 Various classifications of Foods and Food Groups Definition, Classification and Functions of Foods, Basic Food Groups and Need for Grouping Foods and Application of Food Groups In Planning Adequate/Balanced Diets. 	
	 An Overview of culinary terms Different Modes of heat transfer like Radiation, Conduction and Convection - Moist heat methods like Boiling, Simmering, Poaching, Steaming, Pressure cooking - Dry heat methods: Air as medium of cooking: Grilling, broiling, roasting, Baking 	
	 - Fat as medium of cooking: Sautéing, Shallow fat frying, Deep fat frying - Combined (Moist and dry) Methods: Braising, Stewing - Other cooking methods: Microwave cooking and Solar cooking - Advantages and Disadvantages of Cooking methods. 	
2	Nutritional Significance of different Food Groups	20
	 Basic Concepts, classification, composition, nutritive value and Role in Cookery Cereals and Cereal Products- (a. Types of cereals: wheat, rice, millets, b) Cereal Products: Flaked rice, puffed rice, wheat flour) Principles and properties of Cereals and its utility: Germination (Amylase Rich Foods-ARF), fermentation, Parboiling, Gelatinization, Dextrinization, Gluten formation) Pulses and Legumes Fruits and Vegetables Salt, Sugar and Jaggery Nuts, Oils and Oil seeds 	
	 Milk and Milk Products: including Fortified milk & its importance Eggs-Basic structure of an egg and biological value, Quality evaluation and grading of eggs Meat, poultry and fish Spices and Condiments - Importance and functional properties. 	
3	Macronutrients Definition, classification, dietary Sources, functions, Recommended Dietary Allowances, clinical signs and symptoms of Deficiency diseases and Excess of • Carbohydrates	10

	• Proteins	
	• Lipids	
	• Water	
4	Minerals	05
	Definition, classification, functions, dietary sources, requirements and effects of	
	deficiency of	
	• Calcium	
	Phosphorus	
	Magnesium	
	• Sodium	
	Potassium	
	Selenium	
	• Iron	
	a.	
	• Iodine	
	• Copper	
	• Fluorine	
5	Vitamins	05
	Classifications, functions, sources, requirements ,clinical signs and symptoms of	
	deficiency of	
	• Fat Soluble Vitamins - A, D, E and K	
	Water Soluble Vitamins-B Complex Vitamins-Thiamine, Riboflavin, Niacin,	
	Pyridoxine, Folic acid, Cyanocobalamin and Vitamin C	
	TOTAL	48

- Bamji, MS., Krishnasamy, K., Brahmam, G.N.V. (2012). Text Book of Human Nutrition, 3rd Edition, Oxford and IBH Publishing Co. P. Ltd., New Delhi.
- Longvah, T., Ananthan, R., Bhaskarachary, K., Venkaiah, K. (2017). Indian Food Composition Tables (IFCT), Indian Council of Medical Research, National Institute of Nutrition, Hyderabad.
- Maney, S. (2008). Foods, Facts and Principles, 3rd Edition Published by Wiley Eastern, New Delhi.
- Raina, U., Kashyap, S., Narula, V., Thomas S, Suvira., VirS., Chopra, S. (2010). Basic Food Preparation: A Complete Manual, 4th Edition, Orient Black Swan Ltd, Mumbai.
- Srilakshmi, B. (2017). Nutrition Science, New Age International (P) Ltd., New Delhi.
- Sunetra, Roday. (2017). Food Science and Nutrition, Oxford University Press, New Delhi.
- Usha, Chandrasekhar. (2002). Food Science and Application in Indian Cookery, Phoenix Publishing House P. Ltd., New Delhi.

CC1 : Food Science and Nutrition (Practical) (2 credit)

Practical

- 1. Market survey of locally available food items like cereals, pulses, fruits and vegetables, milk and milk products, fats and oils, nuts and oilseeds, sugar and jaggery, meat, fish, and poultry and miscellaneous food items like biscuits, jams, jellies, ketchup etc. and their cost
- 2. Classify foods on the basis of nutrients:- Protein, Iron, Calcium, Vitamin A, Vitamin C
- 3. Controlling techniques: Weights and measures standard and household measures for raw and cooked foods
- 4. Food Preparation, understanding the principles involved, nutritional quality of commonly consumed recipes in each food group
 - i. Cereals: rice, roti, paratha, poori, pastas etc
 - ii. Pulses: Whole, dehusked- Dal, sambar, Chole, etc
 - iii. Vegetables: Dry preparations, Curries
 - iv. Milk and milk products: Kheer, Custard,
 - v. Meat, fish and poultry preparations
 - vi. Egg preparations: Boiled, poached, fried, omelette

CC2: Fundamentals of Human Development

Course Outcomes

After the completion of the course, the student will be able to:

- **CO1:** Explain the need and importance of studying human growth and development across life span.
- **CO2:** Identify the biological and environmental factors affecting human development.
- CO3: Describe the characteristics, needs and developmental tasks of different stages in the human life

cycle

CO4: Apply the theoretical approaches to work with human being across life span

CC2 : Fundamentals of Human Development (Theory: 4 credits)			
Unit	Topics to be covered	No. of Lectures	
1	Introduction to Human Development	12	
•	• Who is a child? What is development?		
	History of Human Development		
	 Growth and development – concepts and determinants 		
	Principles of growth and development		
	Scope of child Development		
	Importance of studying children in contemporary context Heredity and		
	Environment		
	Concept of Heredity & environment		
	Relative importance of heredity and environment in child development		
2	Prenatal Development, Birth Process and Development in Infancy	14	
	Prenatal Development – stages, factors affecting, diagnostics techniques		
	Birth Process		
	• Stages of birth		
	• Types of delivery		
	 Immediate care of newborn, types of feeding - natural and artificial, weaning, immunization schedule. 		
	Common childhood illness		
	Infancy Period		
	Physical development		
	Motor development		
	Social development		
	Emotional development		
	Cognitive Development		
	Language development		
3	Development in Preschool and Childhood Years	12	
Ü	Preschool period		
	Physical development		
	Motor development		
	Social development		
	Emotional development		
	Cognitive Development		
	• Language development		
	Development in childhood years		
	Physical development		
	Motor development		
	Social development		
	Emotional development		
	Cognitive Development		
	Language development		
4	Development in adolescence period	10	
	Introduction to Adolescence		
	Characteristics of Adolescence		

Problems in Adolescent age	
Physical Development	
Mental development	
Social development	
Emotional development	
TOTAL	48

- Berk, L.E. (2005). Child development (5th ed.). New Delhi: Prentice Hall.
- 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 Behavioral 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 (7thed.). 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.

CC2 : Fundamentals of Human Development (Practical) (Practical: 2 credits)

Practical

- 1. Preparation of an album on developmental milestones of children.
- 2. Visit to maternity ward and antenatal clinics.
- 3. Plotting growth monitoring chart and interpretation.
- 4. Observations of infant child rearing practices in families from different social classes
- 5. Interviews of adolescent girls and boys to understand their life style and behavior based on gender and socio-economic status

SEMESTER- II

CC3: Resource Management Concepts and Contexts

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Understanding on the concepts related to family resource management

CO2: Appreciation of the significance of management process in efficient use of resources

CO3: Imbibe nuances of human values and standards for successful management and decision making

CO4: Focus on management of human energy as a family resource

CC3 : Resource Management Concepts and Contexts (Theory: 6 credits)		
Unit	Topics to be covered	No. of Lectures
1	Introduction to resource management in family settings:	12
	 Introduction to home management- meaning, definitions, conceptual framework, need and philosophy 	
	 Ethics in management of resources – essential qualities for success 	
	Motivating factors in management – Values, Standards and Goals	
2	Family Resources:	8
	 Meaning, definition, Concept, classification and characteristics of family resources 	
	 Factors affecting utilization of family resources 	
	Maximizing use of resources	
3	Functions of Management: An Overview	12
	 Decision Making- Definition, steps, types of decision making, 	
	 Management process: Definitions and steps in management process: Planning, Controlling and Evaluation 	
	Relation of Family Resource Management to other areas of Home Science	
4	Management process applicable to specific resources:	15
	 Money- Income, types of income, ways of increasing family income 	
	• Time – concept of time schedule, tools of time management	
	• Energy – Energy need during different stages of family life cycle, fatigue,	
	causes and removal of fatigue	
5	Work simplification:	13
	Definition, need and advantages	
	Work simplification techniques	
	Mervin Mundel's classes of change and Principles of motion economy. DOTATE Company C	
	TOTAL	60

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'Donnel C. (2005). Management A Systems and Contingency Analysis of Managerial Functions. New York: McGraw-Hill Book Company.
- Kreitner. R. (2009/2010). Management Theory and Applications. India: Cengage Learning India Pvt Ltd (ISBN 13: 9788131511244).
- Nickell, P., Rice, A. S., and Tucker, S.P. (1976). Management in Family Living. New York: John Wiley& Sons Inc.
- Nickell, P., and Dorsey, J, M. (2002). Management in Family Living. New Delhi: CBS Publishers (ISBN13: 9788123908519).
- RaoV.S.P., and Narayana P.S. (2008). Principles and Practices of Management. New Delhi: Konark Publishers Pvt. Ltd.(ISBN 13: 9788122000283).
- Seetharaman, P., Batra, S., and Mehra, P. (2005). An Introduction to Family Resource Management. New Delhi: CBS Publishers & Distributors (ISBN 13: 9788123911861).
- Shukul, M., and Gandotra, V. (2006). Home Management and Family Finance. New Delhi: Dominant Publishers and Distributors. (ISBN No. 81-7888-403-8).

- Swanson, B. (1983). Introduction to Home Management. New York: Macmillan Publishing Co. Inc.
- Varghese, M. A., Ogale. N., and Srinivasan, K. (1985). Home Management. New Delhi: New Age International (P) Limited, Publishers (ISBN 13: 9780852269046).

CC4: Human Physiology Course Outcomes

After the completion of the course, the student will be able to:

- **CO1:** Gain the basic knowledge of human anatomy and physiology.
- **CO2:** Define the main structures composing human body.
- **CO3:** Explains structure and functions of cells, tissues and organ system of the human body.
- **CO4:** Relates structure and functions of tissue.
- **CO5:** Provides excellent preparation for careers in the health professions and/or biomedical research.

CC4 : Human Physiology (Theory: 6 credits)		
Unit	Topics to be covered	No. of Lectures
1	Introduction to Human Body	8
-	Basic concepts of Organs, tissue and cell, Cell structure, cellular organelle	
	and their functions, Blood- Composition, blood groups and Functions,	
2	Cardiovascular System and Respiratory Systems	12
	Cardiovascular System	
	 Structure and functions of heart 	
	 Blood Pressure (Systolic &Diastolic Blood pressure) 	
	Respiratory System	
	 Physiological Anatomy of Respiratory Tract 	
	Transport of Respiratory Gases in Blood	
3	Digestive System and Excretory Systems	14
	Digestive System	
	 Principal organs of the digestive system – Mouth, tongue, Teeth, Esophagus, Stomach, Small Intestine, Large Intestine, Rectum, Anus- structure & function 	
	Role of hormones & enzymes in Digestion	
	Excretory System	
	Structure of Excretory System- Kidney, Nephron, Urinary Bladder	
4	Endocrine, Nervous and Reproductive System	16
	Endocrine Systems	
	Introduction to Endocrinology	
	• Functions of Hormones secreted by Pituitary Gland, Thyroid Gland and	
	Parathyroid Gland and Adrenal Gland, Sex glands	
	Nervous System	
	Structure and functions of Neuron, Brain and Central nervous system	
5	Reproductive System	10
	• Structure, hormones secreted and functions of Male and Female	
	Reproductive Organs	
	 Pregnancy and associated changes 	
	Physiology of lactation.	
	TOTAL	60

- Chatterjee C.C (2016), Human Physiology Volume I, Medical Allied Agency, Kolkata
- Chatterjee C.C (2004), Human Physiology Volume II, Medical Allied Agency, Kolkata.

- Chaudhri, K. (1993) Concise Medical Physiology, New Central Book Agency (Parentral) Ltd., Calcutta.
- Kathleen J. W. Wilson, Anne Waugh, Allison Grant. Ross and Wilson Anatomy (2014), Physiology in Health and Illness. 12th Edition, Elsevier Publication, New Delhi
- Sembulingam, K. (2000) Essentials of Medical Physiology, Jaypee Brothers Medical Publishers (P) Ltd., New Delhi

SEMESTER – III

CC5: Communication and Extension

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Gain knowledge on the need and importance of communication and its significance in exchange of information

CO2: Analyze the models of Communication and role of media in societal development

CO3: Perceive the importance of extension education

CO4: Acquire knowledge on the extension models and approaches

	CC5 : Communication and Extension (Theory: 4 credits)		
Unit	Topics to be covered	No. of Lectures	
1	 Meaning, definition, nature, scope and importance of communication Functions of communication—in formation function, command constructive function, influencers, persuasive function and integrative function. Elements of Communication – three elements – source, message, receiver, four elements – encoding, decoding, sender and receiver, five elements— communicator, communicate, message, channel and feedback Means of Communication—Oral, Written, Sign/signal, action, object Types of Communication—Formal and Informal Communication Pattern-one way, two-way, circular Communication media— Printed electronic media Advantages and Limitations of communication media 	14	
2	 Importance of communication in extension Models of Communication-Aristotle Model, Shanon – Weaver Model, Berlo Model, Scharmm Model Concept, purposes and significance of model in communication Barriers to Communication –semantic, psychological, organizational and personal 	10	
3	 Meaning, Scope, Objectives, Need of Extension Education Philosophy and principles of extension education Steps in extension teaching Extension teaching methods Audio Visual Aids 	10	
4	 Rural Sociology Meaning and definition of rural sociology Scope of rural sociology Characteristics of rural society Elements of rural sociology Importance of rural sociology for extension workers Rural Leadership Meaning and definition Classification of leadership Qualities of a leader 	14	

Role of a leadership	
Identifying local leadership	
Methods of leadership training	
TOTAL	48

- Dahama, O. P and Bhatnagar O.P.(1995) .Education and Communication for Development. New Delhi: Oxford and IBH Co.
- Gupta, D.(2007). Development Communication in Rural Sector. New Delhi: Mukhopadhyay Abhijeet Publication
- Nisha, M.(2006). Understanding Extension Education. New Delhi: Kalpay Publications
- Reddy, A.A.(2001). Extension Education. Bapatla: Sri Lakshmi Press
- Rogers Everett, M.(2003). Diffusion of Innovations, 5th Ed. New York: The Free Press
- Singh, U.K and Nayak, A.K.(2007). Extension Education. New Delhi: Common Wealth Publishers
- Wilson , M.C. ,and Gallup, G.(1955). Extension Teaching Methods. Washington: US Department of Agriculture

CC5 : Communication and Extension(Practical) (Practical: 2 credits)

Practical

- 1. Preparation of Audio-Visual Aids
- 2. Visit to a community
- 3. Interaction with people and understand the felt and unfelt need

CC6: Introduction to Textile

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Develop an understanding of concepts and basics of textiles.

CO2: Understands and define the key textile terms.

CO3: Develop critical understanding of the techniques of yarn and fabric manufacture.

CO4: Identify the fibers, yarn and fabrics for its appropriate use.

CO5: Analyze and asses dyed and printed textiles. Recommend the dyes, printing and finishing of textiles for specific use

	CC6 : Introduction to Textile (Theory: 4 credits)	
Unit	Topics to be covered	No. of
		Lectures
1	Introduction to Textiles	6
	 Definition and Classification of textile fibers 	
	Physical and Chemical properties of fibers	
2	Fibers	9
	Natural fibers - Cellulosic (Cotton, Jute) - Protein (Silk, Wool)	
	 Man-made fibers (Manufacturing process, chemical spinning, properties) 	
	Viscose Rayon	
	Acetate Rayon	
	• Nylon	
	• Polyester	
	Acrylic	
	Elastomeric	
3	Yarn and Fabric	14
	Classification of yarns	

	Types of Yarn: Textured and novelty	
	• Twist in yarn: "s" and "z", number of twist	
	• Properties of yarn: strength, extension, fineness, length, diameter,	
	composition.	
	Woven fabrics	
	 Looms and its part 	
	 Classification Basic weaves Plain, Twill, Satin- 	
	 Novelty weaves 	
	Pile, Leno	
	Gauze, Honeycomb	
	Knitted fabrics	
	Types of knitted fabrics	
	Hand knitting	
	Machine knitting	
	 Nonwoven fabrics 	
4	Coloration and Finishing of Textiles	13
	Dyes	
	Classification of dyes	
	- Direct, Acid, Basic and Reactive dyes	
	Printing	
	Styles of printing	
	Modern methods of printing	
	Finishing	
	Basic finishes	
	 Singeing, Scouring, Bleaching, Sizing, Weighting, Degumming, 	
	Mercerizing, Sanforizing and Calendaring	
	• Special finishes	
5	Laundry, storage and care of textiles	6
	Methods and care during laundering of different textiles	
	TOTAL	48

- 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. Sizing, Weighting, Degumming, Mercerizing, Sanforizing and Calendaring Special finishes V 5.1 Laundry, storage and care of textiles Methods and care during laundering of different textiles 5 Practicals 1. Fiber identification: Identification of natural and manmade fibers i.e. burning test method 2. Dyeing: Dyeing of yarn/fabric with different classes of dyes a. Dyeing of cotton yarn and fabric with direct dyes 3. Printing of fabrics using: i. Direct style block, stencil and screen ii. Resist style Tie &Dye, Batik 4. Care of Textiles i. Stain removal 20 Total 60
- Dantyagi, S. (1996). Fundamentals of Textiles and their Care. India: Orient Black swan PrivateLimited.
- 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
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- Joseph, M. (1992), Introductory Textile Science. Sixth edition, California: Harcourt College Publishers
- Kadolph, S.J. 2009. Textiles. Tenth edition. New Delhi: Dorling Kindersley (India)
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- Mahapatra, N.N. (2015). Textile Technology. New Delhi: A.P.H. Publishing Co-operation.
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- Wynne, A., (1997). Textiles, The Motivate Series Mcmillain Education Ltd., London.

CC6: Introduction to Textile (Practical) (Practical: 2 credits)

Practical:

- 1. Fiber identification: Identification of natural and manmade fibers i.e. burning test method
- 2. Dyeing: Dyeing of yarn/fabric with different classes of dyes
 - i. Dyeing of cotton yarn and fabric with direct dyes
- 3. Printing of fabrics using:
 - i. Direct style block, stencil and screen
 - ii. Resist style Tie &Dye, Batik
- 4. Care of Textiles
 - i. Stain removal

CC7: Dietetics

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Understand balanced diet and meal planning

CO2: Describe the nutritional requirements and concerns of children adolescents and adulthood

CO3: Know the physiological, metabolic conditions and nutritional need during old age

CO4: Gain skills in planning diet during varies stages of life

	CC7 : Dietetics (Theory: 4 credits)		
Unit	Topics to be covered	No. of Lectures	
1	Basic Concepts of Diet Therapy	11	
	Nutrition Care Process: Nutritional Assessment (ABCD), Nutrition		
	Intervention, Monitoring & Evaluation of Nutritional Care. Modifications of the Normal Diet		
	General or Regular, Adequate or House Diet,		
	Soft Diet		
	Liquid Diets- Clear Liquid Diet, Full Liquid Diet		
	Mode of Feeding- Internal or Oral Route -Internal (via) tube feeding –		
	Peripheral Vein Feeding	10	
2	Nutrition during Febrile Disorders:	13	
	 Classification of fever (Acute & chronic fevers -Typhoid & Tuberculosis) 		
	Metabolism		
	General Dietary Considerations		
	Nutrition for Weight Management		
	 Assessment of obesity – BMI, Waist Hip-Ratios, Skin folds Thickness 		
	Etiology – Genetic Factors, Physiological Factors, Behavioral factors		
	Treatment – Dietary Management, Fad diets and their (consequence)		
	Underweight – Etiology, Health hazards, Treatments.		
3	General Dietary Considerations for	12	

	 Peptic Ulcer – Definition, Classification, Etiology, Symptoms & Dietary Management Constipation – Meaning, Etiology, Symptoms and Dietary Management 	
	Cardiovascular Disease –	
	 Chronic Coronary Heart Disease – Meaning, Classification, Risk Factor, Symptoms and Dietary Management 	
	 Hypertension – Classification, Risk Factors, Symptoms and Dietary Management 	
4	Diseases of the Liver	12
	 Hepatitis-Types, Etiology, Symptoms and Treatment Cirrhosis- Etiology, Clinical Symptoms and Treatment Hepatic Encephalopathy- Etiology, Clinical Symptoms, Treatment Jaundice- Types, Etiology, Symptoms, Treatment Diseases of the Gall Bladder- Etiology, Symptoms and Treatment 	
	TOTAL	48

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- Mahan, L.K., Arlin, M.T. (2000): Krause's Food, Nutrition and Diet therapy, 11th edition, W.B. Saunders Company, London.
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- Shubhangini A Joshi (2002): Nutrition and Dietetics2nd edition, Tata Mc Graw-Hill Publishing Company Limited, New Delhi.
- Srilakshmi, B.(2005):Dietetics,5th edition, New Age International(P) Limited Publishers, New Delhi Therapeutic Nutrition,17th Ed., Mac Millan Publishing Co
- Williams's (1989): Nutrition and diet Therapy.6th edition. Times Mirror/Mosby College Publishing, St.Louis

CC7 :Dietetics (Practical) (Practical: 2 credits)

Practical

- 1. Planning and preparing diets for diarrhea, constipation febrile conditions Typhoid and Tuberculosis, obese and underweight patients, Peptic Ulcer, viral hepatitis and cirrhosis of liver.
- 2. Diet planning and calculation of important nutrients for various age groups: Pre-school, School going adolescents, pregnancy, lactation and old age.

<u>SEMESTER – IV</u>

CC8: Child Psychology

Course Outcomes

After the completion of the course, the student will be able to:

- **CO1:** Explain the need and importance of studying children.
- CO2: Develop an understanding and awareness of the basic psychological aspects of development.
- CO3: Develop an understanding among the students about the importance of studying old age problem and adjustment.
- **CO4:** Explain the need and importance of studying children with different disabilities.
- **CO5:** Describe the causes, the characteristics, assessment and intervention of various disabilities.
- **CO6:** Identify the common disabilities prevalent in childhood.
- **CO7:** Demonstrate first- hand experience of interacting and understanding children with disabilities.

CO8: Distinguish the education patterns between children with disability and other children.

CO9: Describe the coping strategies adopted by parents and family while dealing with children with

Disabilities.

CO10: Design academic and extra- curricular activities for children with special need.

CC8 : Child Psychology (Theory: 6 credits)		
Unit	Topics to be covered	No. of Lectures
1	Methods of Child Study	08
	Biographical Method	
	Case Study and Clinical Method	
	Observation Method	
	Longitudinal and cross sectional method	
2	Behavioral Psychology	12
	Role of Play in Child Development	
	Thinking and learning in children	
	Measurement of Intelligence, Factors effacing of Intelligence development	
	Counseling – Educational and vocational guidance for the development of	
	right personality	
3	Old Age	10
	Characteristics of old age	
	Attitude of old age person	
	Adjustment in old age with other family members	
4	Common Childhood Developmental Disorders and Disabilities	15
	Demography of disability in India	
	Causes, Characteristic, identification, assessment and intervention with	
	reference to Loco motor disability	
	Visual disability	
	Auditory and speech disability Fig. 1. Children The state of th	
	Epileptic Children	
	Learning disability	
	Cerebral Palsy	
	Social and Emotional Disability Mantally naturals d	
	Mentally retarded Dealwood skilders	
	Backward children Delin group grup	
	Delinquency Programs and policies for families with differently abled shildren	15
5	Programs and policies for families with differently abled children.	15
	 Role of parents in upbringing special children Parental acceptance and coping with the presence of special child in the 	
	family	
	Rights of the child with disability	
	Policy and laws related to children with disability	
	 Issues related to policies and programs in the area of special needs in India 	
	TOTAL	60

- 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.
- Chopra, G. (2012). Stimulating development of young children with disabilities at anganwadi and at home: A practical guide. New Delhi: Engage Publications.
- Dhawan, M. (2011). Education of children with special needs. New Delhi: Isha Books.
- Haring, N. G. (1974). Behavior of exceptional children: An introduction to special education. New Jersey: Prentice Hall Inc.

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- Mangal, S. K. (2007). Exceptional children: An introduction to special education. New Delhi: Prentice Hall of India
- Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata McGraw-Hill
- Sharma, N. (2010). The social ecology of disability. Technical Series-3. New Delhi: Academic Excellence.
- Singh, A. (Ed). (2015). Foundations of human development: A life span approach. New Delhi: Orient Black Swan.

CC9: Family Finance and Consumer Behavior

Course Outcomes

After the completion of the course, the student will have to:

CO1: Becoming familiarized to the Family finance and changing trends in consumerism

CO2: Enriched Knowledge on market systems

CO3: Emerge as informed consumers

	CC9 : Family Finance and Consumer Behavior (Theory: 6 credits)	
Unit	Topics to be covered	No. of Lectures
1	 Household Income and Expenditure Household Income – Types, Sources, use of family income Supplementation of family income Household expenditure: items of expenditure Factors influencing expenditure pattern 	06
2	Family Security Arrangements Difference between savings and investment Need, principles and channels of investment Consumer credit- needs, sources, credit cards	07
3	 Personal finance management Meaning Steps of effective Personal finance management Process of budgeting- steps in drafting a family budget Engel's Laws of consumption Account keeping - balance sheets, account books, ledgers, income-expenditure records Tax implications, calculation of personal income tax, 	10

4	Consumer problems and education	19
	Definition of a consumer	
	Role of consumers in the economy	
	Types -goods and services	
	Consumer demand and supply	
	 Consumer behaviorMeaning, characteristics of buyer behaviour, consumer buying process 	
	Factors influencing Consumer behaviour 16	
	 Change in consumer purchase practices in the modern market (concept of e- commerce, m-commerce, online shopping) 	
	 Consumer education – definition, meaning, need and scope, objectives, methods, contents and resources, problems 	
	• Consumer problems – Types, Causes and Solutions	
5	Consumer Protection Laws in India	18
	Consumer protection- concept, need and significance Consumer rights and responsibilities.	
	Consumer rights and responsibilities Consumer organizations, origin functioning role and types	
	 Consumer organizations – origin, functioning, role and types. Consumer cooperatives – role, history and growth in India, PDS Kendriya Bhandars. 	
	 Consumer aids: classification – Labels, Trademarks, Brand Names, Patents, Warranty, Guarantee, Quality Control and After Sales Service, Government and Voluntary Agencies, 	
	Basic legislative framework for consumer protection in India, Consumer Protection Act 1986 COPRA, Alternative redressal mechanisms	
	 Standardization and quality control measures: ISI, FPO, AGMARK, ISO, Eco mark, Wool mark, Silk mark, Cotton mark, Handloom mark, BEE star labelling and others 	
	Regulations on Food Labelling and Claims: FSSAI, Codex for consumers	
	TOTAL	60

- Khanna S.R., Hanspal S., Kapoor S. & Awasthi H.K., 2007, Consumer Affairs, Universities Press India Pvt. Ltd.
- Sawhney, H.K. &Mital, M., 2007, Family Finance & Consumer Studies, Elite Publishing House Pvt. Ltd.
- Seetharaman, P. and Sethi, M., 2001, Consumerism: Strength and Tactics, New Delhi: CBS Publishers.
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- Kathiresan, S., and Radha, V. (2004). Marketing. Chennai: Prasanna Publishers
- 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
- Verma, B.P. (2003). Civil Engineering Drawing, Drawing and House Planning. New Delhi: Khanna Publishers

CC10: Non-formal, Adult and Life-long Education

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Develop an understanding of concept of non-formal, adult and lifelong education

CO2: Acquire understanding on the selection of the methods and material for non-formal, adult and lifelong education

CO3: Analyze and assess programs of non-formal, adult and lifelong education.

	CC10: Non-formal, Adult and Life-long Education	
Unit	(Theory: 6 credits) Topics to be covered	No. of Lectures
1	Non-Formal Education,	12
	 Difference between formal & Non-Formal Education, Significance of Non-Formal Education in India New education policy & NFE Scope of NFE in communities- Techniques of community study, Domains of Non-Formal Education Organizing NFE program- target group; Physical aspects; organizing and implementation Publicity of Non-Formal Program; Planning and implementing publicity plan 	
2	Adult Education • Meaning, concept and scope of Adult Education	12
	 Adult Education program in India Adult Education and Extension 	
	Characteristics of Adult Learners; Difference between Adult & Child learning Learning	
	Learning theories; Characteristics of Adult learning, developmental tasks of adults - Learning theories; Characteristics of Adult learning, developmental tasks of adults - Learning theories; Characteristics of Adult learning, developmental tasks of adults	
	 Factors associated with adult learning. Motivating and sustaining adult learners 	
3	 Life Long Education Definition, meaning and concept of Life Long Education Life Long Education: Historical and contemporary perspectives Components and objectives of Life Long Education 	12
	 Significance of Life Long Education in contemporary society Forms and domains of Life Long Education Principles of Life Long Education 	
4	Methods and Material for Non-Formal/Adult/Life Long Education • Methods and approaches for organizing NFE program for different target groups • Scope of communication methods and materials for NFE objectives	10
5	Program of Non-Formal/Adult/Life Long and Continuing Education National and international program Local, State, National and international agencies- policy and program Monitoring and evaluation of NFE /Adult/ Life Long and Continuing Education program	14
	TOTAL	60

- Mishra. L., Adult Education, A study of the trials, APH Publishing Corporation, New Delhi.
- Chandra A., Shah A.1987, Non- F o r m a l Education for All, Sterling Publishers, New Delhi.

- Singh M., 2007, New Companion to Adult Educators, International Institute of II Adult Education
- Meaning, concept and scope of Adult Education
- Adult Education program in India
- Adult Education and Extension
- Characteristics of Adult Learners; Difference between Adult & Child learning
- Learning theories; Characteristics of Adult learning, developmental tasks of adults
- Factors associated with adult learning. Motivating and sustaining adult learners 12 III Life Long Education
- Definition, meaning and concept of Life Long Education
- Life Long Education: Historical and contemporary perspectives
- Components and objectives of Life Long Education
- Significance of Life Long Education in contemporary society
- Forms and domains of Life Long Education
- Principles of Life Long Education 12 IV Methods and Material for Non-Formal/Adult/Life Long Education
- Methods and approaches for organizing NFE program for different target groups
- Scope of communication methods and materials for NFE objectives 10 V Program of Non-Formal/Adult/Life Long and Continuing Education
- National and international program
- Local, State, National and international agencies-policy and program
- Monitoring and evaluation of NFE /Adult/ Life Long and Continuing Education program 14 TOTAL 60 Adult and Life Long Education, New Delhi.
- Singh N.K, 2010, Adult Education, Saurabh Publishing House, New Delhi.
- Khajuria D.P., New Trends in Indian Education, Narendra Publishing House, Jalandhar.

SEMESTER – V

CC11: Research Methodology in Home Science

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Develop understanding on various kinds of research, objectives of doing research, research process, research design and sampling.

CO2: Basic knowledge on qualitative research techniques and quantitative data analysis.

CO3: Basic awareness of hypothesis testing.

CC11 : Research Methodology in Home Science (Theory: 4 credits)		
Unit	Topics to be covered	No. of Lectures
1	Research- Meaning, purpose and approaches	10
	 Exploration, Description, Explanation 	
	 Scientific method and research 	
	 Quantitative and Qualitative approaches 	
	 Research Designs –Experimental and Observational 	
2	Conceptualization and Measurement	06
	 Variables, concepts and measurement 	
	 Levels of measurement 	
	 Units of analysis 	
3	Sampling & Tools	15

	 Role of sampling in research Types of Sampling Research Tools and Techniques Validity and Reliability Interviewing and Observational Methods 	
	Scales	
4	The Research Process	12
	 Defining the problem, research questions, objectives, hypotheses 	
	Review of related literature and originality in writing	
	Planning the research	
	Subjects context and ethics	
	Methodology and tools	
	Data reduction, analysis and representation	
	Citation formats: in medical sciences, social sciences	
5	Report Writing	05
	TOTAL	48

- Black, J.A. and Champion, D. J. (1976). Methods and Issues in Social Research. New York: John Wiley and Sons.
- Gupta, S.P. (1994). Statistical Method. Sultan Chand and Sons, New Delhi.
- Jain, Gopal Lal. (1998). Research Methodology, Methods, Tools and Techniques. Mangal Deep Publications, Jaipur.
- Kerlinger, F. N. and Lee, H.B. (2000). Foundations of Behavioral Research .4th Ed. Harcourt College Publishers.
- Kothari, C. R. (2008). Research Methodology: Methods and Techniques. 2nd Ed. New Age International Private Ltd, New Delhi.
- Kumar, R. (2005). Research Methodology: A Step by Step Guide for Beginners. Sage Publications, New Delhi.
- Ramamurthy, G.C. (2011). Research Methodology. Dreamtech Press India Private Limited, New Delhi.

CC11 : Research Methodology in Home Science (Practical) (Practical: 2 credits)

Practical:

- 1. Probability and Non Probability sampling methods
- 2. Designing data collection tools and planning their analysis: In depth interviews, questionnaire, FGDs, Case studies.
- 3. Data collection process: conducting interviews, FGDs, case studies
- 4. Compiling data and data reduction
- 5. Making and analysis of tables and graphs.

CC12: Planning and Designing Interior Space

Course Outcomes

After the completion of the course, the student will be able to:

- **CO1:** Practicing knowledge gained on selection of site and building principles in real life situations
- CO2: Enable reading and comprehending building plans, evaluating and drafting them
- **CO3:** Examining market trends, merits and demerits of building materials and finishes
- **CO4:** Appreciate principles of design and the contributing factors and refine personal aesthetic senses

CC12 : Planning and Designing Interior Space (Theory: 4 credits)		
Unit	Topics to be covered	No. of Lectures
1	Concept of Housing:	08
	• Definition, importance and functions of a house; Family's housing needs;	
	Housing as a symbol of standard of living	
	 Housing standards- role of ISI and BIS 	
	Residential structural features of Indian houses and cultural influences	
2	Constructional Considerations in Designing Interior Spaces:	12
	 Selection of site for houses: Factors influencing and legal aspects 	
	 Building materials: materials for foundation, construction and finishes – types, characteristics and use 	
	 Concept of green buildings and eco-friendly materials as modern trends in building construction 	
	 Housing finance: Availability and supporting agencies - Government and 	
	non-governmental agencies	
3	Design Fundamentals in Designing Interior Space:	10
	Concept and meaning of aesthetics, perception and good taste in	
	designing	
	 Design: Definition, types and classification 	
	 Plastic elements - elements of design – application in interiors 	
	 Principles of design – application in interiors 	
4	Aesthetic and Functional Considerations in Designing Interior Space:	10
	 Color – color harmonies – use and application in interiors 	
	• Furniture – classification, styles, use, factors influencing selection and	
	placement,	
	• Lighting -requirements of good lighting, use/ role, brightness -	
	measurement for adequacy,	
	• Accessories in the interior – definition, , use, role in completing a design	
	needs in an interior	
5	Building Services in an Interior:	08
	Waste disposal methods and provisions	
	Rain water harvesting units	
	Ergonomic considerations ensuring health and safety of inmates	
	TOTAL	48

- 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.
- Cherunilam, F. and Hedggade, O. D. (1987). Housing in India. Bombay: Himalaya Publishing House.
- Crafti (2004). The office Designing for Success. Jaipur: Images Publication.
- De, A.K. (2010. Environmental Chemistry, New Delhi: Willey Eastern ltd,.
- Deshpande, R. S. (1980). Modern Ideal Homes for India. Poona: United Book Corporation.
- Deshpande, R.S. (2000). Build Your Own Home. Pune: United book Corporation.
- Duffy ,F. (1997). The New Office. USA: Conran Octopus Publication.
- Faulkner, R. and Faulkner, S. (1975). Inside Today's Home, New York: Rinehart.
- Grandjean, E. (1979). Human Dimensions and Interior Space. New York: Whitney

- Grondzik, W.T., Kwok, A.G., Stein, B and Reynolds, J.S (2010). Mechanical and Electrical Equipment for Buildings (11th Ed). New York: Wiley, ISBN: 978-0-470-62106-6.
- Harmon. S. and Kennon, K. (2018). The Codes Guidebook for Interiors (5thEd.). New York: Wiley (ISBN: 978-1-119-34319-6).
- Karen, G. and Robert, Y. (1983). Corporate Design, London: Thomas and Hudson.
- Kasu, A.A.(2005). Interior Design. Mumbai: Ashish Book Center.
- Leger, E. (2003). Complete Building Construction. (4th Ed.). New Delhi: Wiley India.
- Leibing, W. R. (1999). Architectural Working Drawings (4th Ed). New York: John Wiley and sons.
- Leinbac (1986). Visualisation Techniques. New Jersey: McMillan (Prentice Hall).
- Leach, S. D.(1978). Techniques of Interior Design Rendering and Presentation (1st Ed.). Architectural record Books (ISBN-13: 978-0070368057).
- Margaret, G.B. and Beryl, S. G. (1980): Fabric Furnishing. London: E.T. Badsford Ltd.
- Mohanty, A.B. (1985). Guide to House Buildings. New Delhi: Inter India Publications.
- National Building Organization- Monograph of Housing Statistics.
- Park, K. (2003). Preventive and Social Medicine, Jabalpur: M/s Banarsi das Bhanot Publishers.
 Piotrowski, C. and Rogers, E. (1999). Designing Commercial Interiors (2ndEd.). London: John Wiley.
- Robert, G.V. (1983). Rendering with pen + Ink. London: Thames, Hudson,
- Seetharaman, P. and Sethi, M. (2002). Interior Design and Decoration, New Delhi: CBS Publishers and Distributors.
- Singh, G. (1985). Bhavan Nirman Samagri. New Delhi: Standard Publishers Distributors, Delhi Sons Publication, University Press.
- Encyclopedia of Interior Design

CC12 : Planning and Designing Interior Space (Practical) (Practical: 2 credits) No. of Lectures

- 1. Market Study on:
 - i Availability and popularity of eco-friendly materials
 - ii. Availability and cost of building materials and finishes
- 2. Submission of layout drawings for different rooms& and furniture using cut outs
- 3. Making accessories of functional and aesthetic value like pottery, paintings (different types), floor decorations, flower arrangement
- 4. Working drawings
- 5. Prang color system, Color harmonies, Color schemes for various rooms
- 6. Submission of a complete record

<u>SEMESTER – VI</u>

CC13: Clothing Construction

Course Outcomes

After the completion of the course, the student will be able to:

- **CO1:** Understand basic principles of clothing construction.
- **CO2:** Comprehend the importance and function of clothes.
- **CO3:** Identify the common fabrics used for clothing construction
- **CO4:** Utilize design components in garment construction
- **CO5:** Gain an insight of various sewing machines and other sewing equipment's available in the market, their functioning & common problems faced while usage.
- **CO6:** Understands various garment construction process.
- **CO7:** Co-ordinates fabrics, patterns and supportive materials
- **CO8:** Construct the garment

	(Theory: 4 credits)	
Unit	Topics to be covered	No. of Lectures
1	History of Clothing.	7
	Functions and theories of clothing in relation to culture	
	Psychological aspects of clothing	
	Socio-psychological aspects of clothing among Children Clothes for	
	conformity, mobility and aesthetic appearance.	10
2	Sewing Machines	12
	 Sewing machine: Parts of sewing machine, function and Types Maintenances Common problems and its remedies. 	
	Tools and equipment used for clothing construction	
	Measuring tool	
	Drafting tool	
	Marketing Tool	
	Stitching tool	
	Needles, threads and their relations to fabric	
	Types of needles for hand and machine sewing	
	Types of threads hand and machine sewing	
	Selection of right thread, needle for the fabric to be sewn.	
3	Introduction to Clothing Construction	12
	Introduction to Clothing Construction	
	Anthropometric measurements	
	Introduction and importance	
	Instruments used for anthropometric measurements standardization and	
	size charts, importance.	
	Factors affecting selection of fabrics:	
	Social factors	
	Economic factors	
	Physiological factors	
	Environmental factors	
4	Design Components	10
	Introduction : Basic elements and principles of design	
	Relation between elements and principles of design to the Clothing and	
	fashion	
	Color, line and texture in relation to :	
	• Age	
	• Season	
	• Occasion	
	Figure and	
	• Complexion	
5	Components of Garments	7
	Introduction to basic garments Skirts, blouse Introduction to Company to Intelligence for the Intelligen	
	Introduction to Garments detailing for	
	Necklines	
	F-11	
	FullnessPockets, Sleeves	

• 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 Guideto Sewing Techniques, DK Publishing Book, New York,
- Dorothy wood, the practical encyclopedia 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.
- Kallal, Mary Jo, (1985), Clothing Construction, Mc Millan Publishing Company, New York.
- Norma Hollen, Jane Saddler, Anna L. Langford & Sara, J.,(1988) Textiles 6th ed., Macmillan Publication, New York
- Readers, Digest, Complete Guide to Sewing, The Reader's Digest Associations (Canada)Ltd. Montreal, Pleasantville, New York.
- Thomas, A, (1986), the Art of Sewing UBSPD Publishers Distributors Ltd. New Delhi.

CC13 : Clothing Construction (Practical: 2 credits)

Practical

- 1. Tools and Equipment used in Garment Construction:
- 2. Squares and Scales, French curves forarmhole, necklines etc.
- 3. Preparing sample of:
 - i. Seams- plain seams and decorative seams
- 4. Fullness
 - i. Darts-Single point, Fish dart
 - ii. Tucks
 - iii. Pleats
 - iv. Gathers
 - v. Shirring
 - vi. Ruffels and Frills

CC14: Early Childhood Care and Education

Course Outcomes

After the completion of the course, the student will be able to:

- **CO1:** Explain the importance of early childhood years and significance of intervention programs for early childhood development.
- **CO2:** Describe the historical developments global and Indian including the current programs and policies in ECCE.
- **CO3:** Identify various indigenous (Indian) models of Early Childhood Education and apply it to understand the current early childhood research, theoretical trends and issues.
- **CO4:** Analyze curriculum models and pedagogical approaches in early childhood education.
- **CO5:** Create developmentally appropriate programs for young children.

CC -14 : Early Childhood Care and Education (Theory: 4 credits)		
Unit	Topics to be covered	No. of Lectures
1	Introduction to Early Childhood Care and Education	12
	Concept, meaning, scope and significance of ECCE	
	 Deference between Day Care and ECCE 	
	 Aims and objectives of ECCE 	
	Types of ECCE service delivery – Formal and informal;	
	Government funded, Philosophy oriented, Laboratory nursery school, Franchise oriented	
2	ECCE in India	12
	History of Early Childhood Care and Education in India.	
	Overview of ECCE in pre and post independence period.	
	Preschool education in the pre and post-independence era (very	

	Health, hygiene and NutritionSecurity, sample for maintaining emergency contact	
	Administration, training, capacity building Health, hygiona and Nutrition	
	Record, register, ECCE calendar	
	Entrance process	
	Basic Infrastructure	
4	New Education Policy, 2020	12
	 Curriculum Framework for Early Childhood Care and Education 2012/2013 	
	National Policy on Early Childhood Care and Education 2013	
	National Curriculum Framework 2005	
	innovations in ECCE – ICDS, Balwadis, mobile crèches	
3	National Policy on Education (1986) Programmes/schemes and	12
3	Montessori, Sri Aurobindo, Tagore, Mahatma Gandhi Policies in ECCE-Various Education commissions of India	12
	Pestalozzi, Froebel, McMillan Sisters, John Dewey and	
	perspective- views of educationists and philosophers: Rousseau,	
	trends.Contributions of educational philosophers: global and Indian	
	brief). How the international trends have influenced the national	

CC -14: Early Childhood Care and Education			
	(Practical: 2 credits)		
Topics to be	e covered		
Practical:			
1.	Observation of early childhood		
	programs at government and nongovernmental institution		
2.	List the activities for each domain to promote all round development in young children.		
3.	Plan and record activities and methods of playful interactions to foster development in children		
	(birth –two years and two –six years)		
4.	Prepare a developmentally appropriate plan and its implementation		
5.	Methods and tools to assess progress of children and program		
6.	Prepare low cost play materials/equipment's		

Discipline Specific Elective (DSE)

SEMESTER – V

DSE1: Public Health Nutrition

Course Outcomes

After the completion of the course, the student will be able to:

CO1: To develop physiological well-being and overall health.

CO2: Identify some of the social and cultural influences on food habits and activity patterns.

CO3: Evaluate current nutritional information with regard to its contribution to Health.

DSE1: Public Health Nutrition

(Theory: 6 credits)

Unit	Topics to be covered	No. of Lectures
1	 Concept of Public Health Introduction to population and health: definition, scope, Concept of demography, Population components Introduction to determinants of Health 	06
2	Introduction to Public Health Nutrition	18
	 Importance of Nutrition for Health Under Nutrition: global and Indian prevalence of under nutrition, risk factors consequences Micronutrient deficiency disorders: prevalence, risk factors. Over Nutrition, Obesity: prevalence and risk factors: Physical activity and inactivity 	
3	 Inequalities and Disparities in Health Inequalities and Disparities in Health: Poverty, discrimination, vulnerability, income inequality and impact on health outcome, Social determinants of health: socio economic position, education, occupation, ethnicity, income, education, gender bias, violence etc 	06
4	 Understanding Health Policy and Systems Functional organization of the public health system in India Evolution of global public health initiatives: primary health care, selective primary health care, MDGs, SDGS Challenges in Public health delivery system: with ref to delivery, performance, effectiveness, efficiency, and equity, discussion about the sources of problems and potential solutions 	10
5	 National, international and voluntary organizations to combat malnutrition Strategies for improving nutrition and health status of the community: Appropriate interventions involving different sectors such as Food, Health and Education Role of Nutrition in Achieving Global Targets Nutrition Intervention programmes in India – Integrated Child Development Services (ICDS), Supplementary Nutrition, Bal bhog, Sakhibhog, Shishubhog ,Mid-Day Meal program, National Nutritional Anemia Control Program, Nutritional Program for Control of Anemia among Adolescent Girls, National Iron Plus Initiative (NIPI), Vitamin A Prophylaxis Program (VAPP), National Iodine Deficiency Disorders Control Program (NIDDCP), Universal Salt Iodization (USI), Double Fortified Salt (DFS),Diarrhea Control Program, Fluorosis Control Program Organizations Working towards Meeting Global Nutrition Targets National organization – ICAR, ICMR, CSWB, SSWB, NNMB, NIN, CFTRI, DFRL, NIPCCD and NFI, Save the Children, Tata Trusts International Organizations - World Bank, World Health Organization (WHO), United Nations International Children's Emergency Fund (UNICEF), World Food Programme (WFP), Bill and Melinda Gates Foundation Voluntary organizations – Global Alliance for Improved Nutrition(GAIN) Micronutrient Initiatives, CARE, CRS, AFPRO, IDA; World Alliance for 	20
	Breastfeeding Action (WABA) TOTAL	60

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- Park, K., (2011). Textbook of Preventive and Social Medicine, 21st Edition. M/s Banarasidas Bhanot Publishers, Jabalpur, India.
- Bamji, M.S., Krishna swamy K. and Brahmam, GNV. (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
- Gibney M.J., (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.
- Wardlaw, Smith. Contemporary Nutrition: A Functional Approach. 2nd ed: 2012.Mc Graw Hill. Williams Melvin. Nutrition for health, fitness and sports. 2004.Mc Graw Hill
- Joshi AS. Nutrition and Dietetics 2010. Tata Mc Graw Hill.

DSE2: Entrepreneurship Development

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Understand the concept of entrepreneurship, entrepreneur and enterprise

CO2: Identify ways to approach supportive Institutions and Banks for starting an enterprise

CO3: Analyze the steps in product selection and form of ownership

CO4: Focus on the formation of project proposal and practice effective accounting processes

	DSE2 : Entrepreneurship Development (Theory: 6 credits)		
Unit	Topics to be covered	No. of Lectures	
1	Concept of Entrepreneurship	07	
•	Concept, definition and scope of entrepreneurship		
	Significance of entrepreneurship development in India		
	• Entrepreneur- meaning, qualities, functions, types and challenges		
	of entrepreneur		
2	Launching a Small Scale Enterprise	18	
	Meaning and features of Small-Scale Industry		
	 Types of Small-Scale industries 		
	Importance and advantages of small-scale industries		
	Steps of launching a Small Scale Enterprise		
	Concept and Classification – Product identification and product		
	selection		
	 Infrastructure – Plant Location, Land, building, water and power 		
	• 6MS – Man power, method, machine, material, marketing,		
	mother nature		
	START - UPS –concept and definition		
3	Enterprise Management	17	
	Managing Production		
	Organizing Production; input-output cycle		
	Ensuring Quality		
	Managing Marketing		
	 Understanding markets and marketing 		
	 Functions of Marketing 		
	 4Ps of Marketing (same as marketing mix) 		
	Financial Management		
	Meaning of Finance		
	 Types and Sources of Finance 		
	 Estimation of project cost 		
	Profit Assessment		
4	Institutional Support For Small Scale Enterprise	08	
	Commercial Bank		
	 Assistance on Central level (SSIB, NSIC, SIDO, KVIC, 		
	NIESBUD, NABARD)		
	State Level Assistance (DIC, SFC, SSIDC, SIDBI, SISI, ICICI)		
5	Formulating a Project	10	

•	Meaning and definition of project	
•	Project formulation techniques – Quantifiable and Non quantifiable projects, Sectoral project, and Techno economic project	
•	Project appraisal – market feasibility, technical feasibility, financial and economic feasibility Carryout market survey	
TOTA		60

- Anilkumar, S. Poornima S.C. Mini K. Abraham and Jayashree, K. (2012). Entrepreneurship Development. New Delhi: New Age International Pvt. Ltd., Publishers
- Badi, R. V. and Badi N. V. (2011), Entrepreneurship. New Delhi: Vrinda Publications Pvt. Limited
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- Robert, N.A. Hawkins, F. Kernelt, A. (2009). Accounting. New Delhi: Tata Me Graw Hill Publishing Company Limited
- Sundara Pandian, P. (2002). Entrepreneurship Development. Virudhu nagar: M.M. Publishers

<u>SEMESTER – VI</u>

DSE3: Non-government Organization Management

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Explain the needs and importance of NGO's and Management

CO2: Learn the legal frame work for establishing NGO's

CO3: Describe the concepts, principles of Project Management and Formulation of Detail Project

Report

CO4: Analyze the key issues in Government policies and program

DSE3 : Non-government Organization Management (Theory: 4 credits)		
Unit	Topics to be covered	No. of Lectures
1	Concept of NGO	12
-	 Meaning of NGO and GO 	
	 Difference between government organization(GO) and Non government Organization(NGO) 	
	Principles of NGO	
	Characteristics of good NGO	
	Structure and functions of NGO	
	Classification of NGO	
	Origin and development of NGO	
2	Legal Frame Work for Establishing NGO	12
_	Legal–rational structure of Non profits	

	Trust and Societies with special reference to Trust and Designation Acts	
	Registration Acts	
	 Foreign contributions and Regulation Act(FCRA) 	
	• Statutory obligations, Income Tax Exemption (80-G,12-	
	Aand35NC) 2.5 Rules and Regulations–Resource Mobilization	
	 Methods and Techniques of fundraising 	
	 International, national and local levels 	
	 Schemes for NGO sunder various Ministries of Government of 	
	India 2.9 NABARD and Human Rights Commission	
3	Project and Management in NGO	12
	 Concept, objectives, principles and Types of projects 	
	 Project implementation and management 	
	 Project planning matrix, project cycle management, identification 	
	and formulation of Detail project Report (DPR) with reference to	
	action AID	
	Monitoring and Evaluation—Network Analysis Program(Project)	
	Management and Review	
	Techniques(PERT), Critical Path Method (CPM), Participatory Rural	
	Appraisal(PR A)—Tool sand Techniques, Strength, Weakness,	
	Opportunity and Challenges(SWOC)analysis.\	
4	Policies and Program	12
	Government laws, partnership p-model, Governing Schemes	
	through minis tries/ Department/Bodies, government grant-in-aid	
	 New regulations for NGO and government control 	
	 National policy on voluntary sector under five-year plans. 	
	TOTAL	48

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- Dorothea Hilhorbat.(2003).the real world of NGO's, Discourses, Diversity and Development. New Delhi: Zed books Ltd.
- Jain R.B.(1995). NGOs in Development Perspective. New Delhi: Vivek Prakasan
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- Julie Fisher.(2003). Governments, NGO's and the Political Development of the Third World. Jaipur: Rawat Publications
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- Kumar, A.(2003). Social Change through NGO's. New Delhi: Anmol Publishers
- Ravi Shankar Kumar Singh.(2003). Role of NGO's in Developing Countries (Potentials, Constraints and Policies). New Delhi: Deep & Deep Publications (P) Ltd

DSE3: Non-government Organization Management	
(Practical: 2 credits)	
Topics to be covered	

Practical:

- 1. Visit an NGO and learn the aspect of formation, management and administration Carry out a case study on NGO's and understand the techniques of NGO's
- 2. Preparation of model project report with reference to action AID
- 3. Apply Network analysis and PRA techniques to find out the available resources in the target area of NGO
- 4. Interaction with NGO's officials and find out their problems and prospects Interact with NGO's officials and how the Government policies and program(NGO's)

DSE4: Basics of Interior Design and Hospitality Management

Course Outcomes

After the completion of the course, the student will be able to:

CO1: Comprehend the concept of design applicable to interior spaces in hospitality

CO2: Proficiency in presentation drawing to be used in hospitality management

CO3: Understand the maintenance of materials and finishes to create aesthetic and sustainable interiors

DSE4 : Basics of Interior Design and Hospitality Management (Theory: 4 credits)		
Unit	Topics to be covered	No. of Lectures
1	Introduction to foundation of art and design	09
	Objectives of design : Beauty, Functionalism and Expressiveness	
	• Types of Design: Structural and decorative (Naturalistic, stylized, abstract and geometric; Modern and traditional design)	
2	Introduction to Elements and Principles of Design	10
	 Elements of design: Line, Shape and form, Space, Pattern, Texture, Light, Color Principles of design: Balance, Harmony, Scale, Proportion, 	
3	Rhythm, Emphasis Introduction to components of Interior Design	10
3	Surface in Interior: wall finishes, floor finishes, ceiling finishes	10
	 Types of Furniture and furnishing items 	
	Types of a coessories	
4	Introduction to Hospitality Industry	10
	Meaning ,scope and importance of hospitality Industry	
	 Importance and functions of housekeeping department in hospitality industry 	
	Introduction to front office department and personal management	
5	Management of Hospitality Industry	09
	Functions of Food Service Department	
	The functions of linen and room laundry	
	TOTAL	48

- Andrews, S. (1982)."Hotel Front Office Training Manual". Tata McGraw Hill Publishing Co. Ltd, New Delhi.
- Andrews, S. (2000), "Food and Beverage Management," Tata McGraw Hill Publishing Co. Ltd, New Delhi.
- Bhatia, A.K. (1983). Tourism Development: Principles and Practices, 2nd Edition, Stealing Publishing Co., (Unit I-VII, IX), New Delhi.
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- Gandotra, V., Shukul, M. and Jaiswal, N. (2010). Introduction to Interior Design and Decoration, Dominant Publishers and Distributors, Delhi.
- Seetharaman , P. and Pannu, P. (2005).Interior Design & Decoration, CBS Publishers & Distribution, New Delhi.

DSE4: Basics of Interior Design and Hospitality Management	ţ
(Practical: 2 credits)	

Topics to be covered

Practical:

- 1. Demonstration on flower arrangement in relation to hospitality industry 2. Demonstration on Napkin folding
- 3. Demonstration on Table setting in Restaurants & Banquettes.
- 4. Visit to a hotel for providing exposure to various departments of hotel to document records and functions.