

**Undergraduate Home Science Course Structure and Credit Distribution with multiple entry and exit options for Certificate, Diploma and Bachelor Degree (Including Honours and Research)**

Semester	Course Category	Course Code	Course Title	Credits
<b>First Year</b>				
<b>I</b>	Major	HSC 100	Introduction to Food and Nutrition	L-3+T-1=4
	Major	HSC 101	Management for Modern Family	L-3+T-1=4
	Minor	HSC 102	Chemistry	L-3+T-1=4
	Multidisciplinary	HSC 103	Fundamentals of Home Science -I	3
			Ability Enhancement Course	3
			Value Added Course	2
				<b>Total Credits</b>
<b>II</b>	Major	HSC 104	Family and Child Welfare	L-3+T-1=4
	Major	HSC 105	Nutrition for the family	L-3+T-1=4
	Minor	HSC 106	Textiles and Clothing	L-3+T-1=4
	Multidisciplinary	HSC 107	Fundamentals of Home Science-II	3
			Skill Enhancement Course	3
			Value Added Course	2
				<b>Total Credits</b>
<b>Exit option with UG Certificate in Home Science after securing 40 credits.</b>				
<b>Second Year</b>				
<b>III</b>	Major	HSC 200	Textiles -I	L-3+P-1=4
	Major	HSC 201	Nutrition and Dietetics	L-3+P-1=4
	Minor	HSC 202	Biochemistry	L-3+P-1=4
	Multidisciplinary			3
			Skill Enhancement Course	3
			Value Added Course	2
				<b>Total Credits</b>
<b>IV</b>	Major	HSC 203	Human Development- Childhood	L-3+P-1=4
	Major	HSC 204	Household Equipment and Consumer Economics	L-3+P-1=4
	Minor	HSC 205	Physiology	L-3+P-1=4
			Ability Enhancement Course	3
			Skill Enhancement Course	3
			Value Added Course	2
				<b>Total Credits</b>
<b>Exit option with UG Diploma in Home Science after securing 80 credits.</b>				
<b>Third Year</b>				
<b>V</b>	Major	HSC 300	Garment Construction - I	L-3+P-1=4
	Major	HSC 301	Early Childhood Care and Education	L-3+P-1=4
	Major	HSC 302	Child Psychology	L-3+P-1=4
	Minor	HSC 303	Extension Education	L-3+P-1=4

			Ability Enhancement Course	2	
			Internship	2	
			<b>Total Credits</b>	<b>20</b>	
<b>VI</b>	Major	HSC 304	Human Development - Adolescence and Adulthood	L-3+P-1=4	
	Major	HSC 305	Dietetics	L-3+P-1=4	
	Major	HSC 306	Interior Design and Furnishing, Space Planning.	L-3+P-1=4	
	Major	HSC 307	Textiles- II	L-3+P-1=4	
	Minor	HSC 308	Extension Education and Communication.	L-3+P-1=4	
				<b>Total Credits</b>	<b>20</b>
<b>Award of 3 Year Bachelor's Degree in Home Science after completion 120 credits with entry option to the 4 Year Bachelor's Degree for students who obtain a minimum CGPA of 7.5 in Bachelor's Degree examination</b>					
<b>Fourth Year</b>					
<b>VII</b>	Major	HSC 400	Food Preservation Technology	L-3+P-1=4	
	Major	HSC 401	Entrepreneurship in Home Science	L-3+P-1=4	
	Major	HSC 402	Children with Special Needs	L-3+P-1=4	
	Minor	HSC 403	Nutritional Biochemistry	L-3+P-1=4	
	Minor	HSC 404	Research methodology	4	
				<b>Total Credits</b>	<b>20</b>
<b>VIII</b>	Major	HSC 405	Community Development	L-3+P-1=4	
	Major	HSC 406	Catering Management, Food Sanitation and Safety.	L-3+P-1=4	
	Major	HSC 407	Gerontology	L-3+P-1=4	
	Major	HSC 408	Garment Construction-II	L-3+P-1=4	
	Major	HSC 409	Family Resource Management	L-3+P-1=4	
				<b>Total Credits</b>	<b>20</b>
	<b>Award of Bachelor's Degree (Honours) in Home Science after completion of 160 credits without Research</b>				
	<b>OR</b>				
	Major	HSC 405	Community Development	L-3+P-1=4	
	Major	HSC 406	Catering Management, Food Sanitation and Safety.	L-3+P-1=4	
		HSC 410	Research Project /Dissertation	12	
				<b>Total Credits</b>	<b>20</b>
	<b>Award of Bachelor's Degree (Honours with Research) in Home Science after completion of 160 credits with Research</b>				

**FIRST SEMESTER**  
**Disciplinary Major**  
**HSC 100: INTRODUCTION TO FOOD AND NUTRITION**  
**4 Credits (L-3 + T-1)**

**LEARNING OUTCOME:**

The students after learning this course will acquire the knowledge of different nutrients needed by man with respect to their functions, sources, requirement and problems arising due to their deficiency. The students will also learn the basic principles of cooking and food preservation.

**UNIT - I:** Definition of Food, Nutrients, Nutrition, Malnutrition, Optimal Nutrition. Functions of Food – Physiological, psychological and social functions. Basic food groups and their nutrients composition. Food selection, purchase and storage. Criteria for wise selection and purchase of food, different storage of food. Enhancing nutritional quality of food – fermentation, fortification, germination and combination of food.

**UNIT – II:** Carbohydrates - functions, food sources and RDA. Protein - functions, sources and RDA, essential and non-essential amino acids, quality of proteins, deficiency of proteins. Lipids - function, sources and RDA, essential fatty acids.

**UNIT – III:** Energy metabolism – Energy yielding food, BMR, factors affecting BMR, RDA of energy for different categories of individual; macro- minerals- functions, sources, RDA and deficiency of calcium and phosphorus. Fat soluble vitamins – functions, sources, RDA and deficiency of vitamin A and vitamin D; Water soluble vitamins – functions, sources, RDA and deficiency of thiamine, riboflavin, niacin and vitamin C.

**UNIT – IV:** Food preparation – Principles of cooking, reasons for cooking, methods of food preparation. Food preservation – Importance, principles and methods of food preservation (Household and Commercial methods).

**RECOMMENDED BOOKS:**

1. Educational Planning Group (1993), Food and Nutrition: A text Book of Home Science, Arya Publishing Home, New Delhi.
2. Sumati, H R, and Rajagopal, M V (2001). Fundamentals of Food and Nutrition. New Age International (pvt) Ltd, New Delhi.
3. Srilakshmi, B. (2007). Food Science, New Age International (pvt) Ltd, New Delhi.
4. Srilakshmi, B. (2007). Nutrition Science, New Age International (pvt) Ltd, New Delhi.
5. Srilakshmi, B. (2007). Dietetics. New Age International (pvt) Ltd, New Delhi.

**FIRST SEMESTER**  
**Disciplinary Major**

**HSC 101: MANAGEMENT FOR MODERN LIVING**

**4 Credits (L-3 + T-1)**

**LEARNING OUTCOME:**

Students will be able to define, identify and/ or apply the principles of management in the family and in any organizations and to live a good quality life. Develop skills in a home maker and learn the process of decision making in the utilization of resources.

**UNIT -1: INTRODUCTION TO MANAGEMENT-**

Concept, definition and importance of home management. Role and functions of the home. Types of families. The family cycle.

**UNIT -11: MOTIVATING FACTORS –**

Values: Definition, concept, sources and classification. Goals: definition, concept, types and classification., Goal setting. Standards: definition, concept and classification.

**UNIT 111: DECISION MAKING PROCESS –**

Definition, concept and importance of decision making. Kinds of decisions families make. Steps in the decision making process

**UNIT 1V: MANAGEMENT PROCESS-**

Qualities of a good home maker. Steps in the process of management: planning, organizing, controlling and evaluating.

**RECOMMENDED BOOKS:**

1. Rupa Chaterjee,” Home Management” VIS PUBLISHERS, New Delhi, Hyderabad, Mumbai
2. Callic Daum,” Principles of Management “, Vibrant Publishers, WWW, Vibrantpublishers.com
3. Elva M Anson; Kathie Liden, “The complete book of Home Management, Published by Moody Press (1985)
4. Premlatta Mullick, (2007), Text Book of Home Science, Kalyani Publishers.

**FIRST SEMESTER**  
**Disciplinary Minor**  
**HSC 102: CHEMISTRY**

**4 Credits (L-3 + T-1)**

**LEARNING OUTCOME:**

Students will come to know the fundamental principles of organic chemistry and predict outcomes and derive mechanism of various types of organic reactions. Understand various types of reactive intermediates and factors affecting their stability. Students will understand the nomenclature, synthesis, isomerism and physical properties of different type of hydrocarbons. They will be able to name the functional groups and different class of organic compounds. And will recognize the basic practical skills for the synthesis and analysis of organic compounds.

**UNIT- I:** An introduction to Organic Chemistry. Definition of atom, molecule, valency, normality, molarity, equivalent weight, molecular weight, empirical formula, molecular formula, chemical equation, diffusion, pH and buffer solution. Oxidation, reduction, oxidizing and reducing agents.

Detection of carbon, hydrogen, nitrogen, sulphur and phosphorus in organic compounds;

**UNIT- II:** Hydrocarbon – Definition, type, general properties of saturated and unsaturated hydrocarbons; Definition, structural formula, preparation, properties and uses of methane and Ethane. Ketone and Aldehyde – Definition, structural formula, preparation, properties and uses of Acetone and Formaldehyde.

**UNIT-III:** Alkyl halide – definition, structural formula, preparation, properties and uses of Methyl Iodide and Ethyl Iodide.

Alcohol – definition, structural formula, preparation, properties and uses of Methyl alcohol and Ethyl alcohol.

**UNIT –IV:** Carboxylic acid- Definition, structural formula, preparation, properties and uses of Acetic acid, Oxalic acid. Hydroxy acid – Definition, structural formula, preparation, properties and uses of Tartaric acid and Citric acid.

**RECOMMENDED BOOKS:**

1. Bahl, B.S. &Bahl, A. (1995). Advanced Organic Chemistry (Fourth Edition). S. Chand & Company Limited. Ram Nagar, New Delhi
2. Pine, S.H. (1987). Organic Chemistry (Fifth Edition), McGraw Hill International Editions, Printed at Singapore.
3. Finar, I.L (1995). Organic Chemistry (Fifth Edition). ELBS Edition. Produced by Longman, Singapore Publishers (Pvt) Ltd: Singapore
4. Kapoor, K.L. (2001). Text Book of Physical Chemistry (Third Edition). Mc Milan India Limited, Ansari Road, Daryaganj, New Delhi. Pandey, O.P., &Bajpai, D.N (2003). Practical Chemistry, S, Chand& Company Limited.

Ram and S. Giri and S. Giri Nagar, New Delhi

**FIRST SEMESTER**  
**Multidisciplinary course**  
**HSC 103: FUNDAMENTALS OF HOME SCIENCE- I**

**3 Credits**

**LEARNING OUTCOME:**

The course will help the students to understand the role of Home Science in the development and wellbeing of individuals, family and community. Course aims at teaching the students skill development in various aspects of the home.

**Unit-I:** Role of Home Management in a changing world. Stages of Family Life. Management of Resources in different stages of family life: Time, Energy, Money.

**Unit- II:** Introduction to Yarns; Yarn Making-Filament and Staple; Classification of yarns; Simple, Novelty, Fancy, Complex. Textured yarns; Yarn properties. yarn twist and yarn number.

**Unit-III:** Definition of Food, Nutrients, nutrition, malnutrition, optimal nutrition. Basic food groups and their main nutrients composition. Functions, food sources and RDA of Carbohydrates, Protein, Lipids, Fat soluble Vitamins, and Water-soluble Vitamins.

**RECOMMENDED BOOKS:**

1. Vargese, M.A, (1989) Home Management. Wiley Eastern ltd
2. Reddy P.N., Tripathi P.C., Appanaiah H.R. (2009). Essentials of Management. Himalaya Publishing House
3. Gupta Sushma, Neeru Garg and Renu Saini, (2005) Textbook of Clothing. Textiles and laundry. Kalyani Publishers, Delhi
4. Sekhri S., (2011) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi
5. Srilaksmi B., (2007) Food Science, New Age International (Pvt. ltd) New Delhi
6. M. Swaminathan, Hand Book of Food and Nutrition. The Bangalore Printing and Publishing Co. ltd.

**SECOND SEMESTER**  
**Disciplinary Major**  
**HSC 104: FAMILY AND CHILD WELFARE**

**4 Credits (L-3 + T-1)**

**LEARNING OUTCOME:**

The students will gain knowledge and understand the concept of Family and Child Welfare. The different approaches by the Government to ensure full development and protection for women and children through policies and programme. The institutional services and legislative support available at the state and national level.

**Unit – 1: Family Welfare:**

Concept and Importance of Family Welfare  
Family Welfare Programmes  
Reproductive Child Health Care Services  
National Rural Health Mission, Nature and Function

**Unit -2: Child Welfare:**

Meaning and Importance of Child Welfare  
National Policy for Children 2013  
Convention Right for Children  
Integrated Child Protection Scheme  
Agencies rendering services to children  
ICDS, NIPCCD, UNICEF, ChildLine

**Unit – 3: Laws relating to protection of women and children:**

Domestic Violence Act 2005  
Women Empowerment; Meaning and Challenges  
National Policy for Women Empowerment 2021  
Juvenile Justice Act 2000  
Child Abuse, Child Labour

**Unit – 4: Children with disabilities:**

Meaning, Causes, Management of

- I. Physical Disabilities
- II. Hearing Impaired
- III. Visual Impaired

**RECOMMENDED BOOKS:**

1. ICSSR – Status of women in India, Report of the National Committee, Allied Publishers, Delhi.
2. Chowdry, D.P (1993). Profile of Social Welfare. Jaipur: Mangal Deep Publication.
3. Gangrade, K.D (1978) Social Legislation in India, New Delhi
4. Agarwal, A. & Rao, B.V. (2007). Education of Disabled Children. New Delhi: Eastern Book Corporation. • Agnes, F. (1999)
5. Bajpai, A. (2006). Child Rights in India: Law, Policy and Practice. Oxford University Press.
6. Saikia, N. (2008). Indian women: A socio-legal perspective. New Delhi: Serials Publication.
7. Verma US and Singh. M (1998). Legal Rights for Women and Families, New Delhi.

**SECOND SEMESTER**  
**Disciplinary Major**  
**HSC 105: NUTRITION FOR THE FAMILY**

**4 Credits (L-3 + T-1)**

**LEARNING OUTCOME:**

Nutritional requirement is different for various age group. The students will be taught to understand certain factors that determine the requirement for different stages of life.

**UNIT – I:** Nutrition for adults – Reference man and woman, nutritional requirements, meal planning, factor to be considered while planning a balanced diet. Nutrition for expectant mothers – dietary problems, complications of pregnancy, dietary guidelines.

**UNIT – II:** Nutrition for nursing mother – Volume and composition of breast milk, factors affecting, nutritional requirement, dietary guidelines. Nutrition for infants – Breast feeding, weaning, supplementary feeding, nutritional requirement for normal infants.

**UNIT – III:** Nutrition for preschool children (1-6 years) – Nutritional requirement, food habits and factors affecting nutritional requirements. Nutrition for school-going children (7-13 years)- nutritional requirement, Packed lunch.

**UNIT – IV:** Nutrition for adolescents- Nutritional problems, nutritional requirement. Geriatric nutrition – nutritional requirement, nutrition related problems of old age, modification of diet for the elderly, dietary guidelines.

**RECOMMENDED BOOKS:**

1. Educational Planning Group (1993), Food and Nutrition: A text Book of Home Science, Arya Publishing Home, New Delhi.



2. Sumati, H R, and Rajagopal, M V (2001). Fundamentals of Food and Nutrition. New Age International (pvt) Ltd, New Delhi.
3. Srilakshmi, B. (2007). Food Science, New Age International (pvt) Ltd, New Delhi.
4. Srilakshmi, B. (2007). Nutrition Science, New Age International (pvt) Ltd, New Delhi.
5. Srilakshmi, B. (2007). Dietetics. New Age International (pvt) Ltd, New Delhi.

**SECOND SEMESTER**  
**Disciplinary Minor**  
**HSC 106: TEXTILES AND CLOTHING**

**4 Credits (L-3 + T-1)**

**LEARNING OUTCOME:**

Studies the importance of clothing physically, sociologically and psychologically and how to take body measurements. It also includes the basic studies of fashion and the Indian textiles.

**UNIT – I: Introduction to Clothing**

- Importance of clothing
- Sociological and psychological aspects of clothing
- Selection of suitable clothing- Introduction, Factors affecting selection of clothing
- Clothing for different age groups- Infant, creeper, toddler, pre-school, school going children, pre-adolescent, adolescent, adults, elderly

**UNIT – II: Body measurements**

- Methods of taking body measurements – Bodice, arm and skirt
- Fitting of garments: Factors which would help to judge a good fit
- Reasons for good fitting
- Steps in solving a fitting problem

**UNIT – III: Fashion basics**

- Important terminology in fashion
- Fashion cycle and its stages
- Components of fashion
- Theories of fashion adoption
- Principles of fashion
- Factors affecting fashion

**UNIT – IV: Indian textiles**

- An introduction to Indian Textiles
- Different textiles of India and Indian Embroideries.

## **RECOMMENDED BOOKS:**

1. Gupta Sushma, Neeru Garg & Renu Saini. Text Book of Clothing Textiles and Laundry. New Delhi: Kalyani Publishers 2005
2. Lewis Virginia Stolpe. Comparative Clothing Construction Techniques. Delhi: Surjeet Publications 1984.
3. Yadla Vijaya Lakshmi. Home Science- reference Book for UGC. New Delhi: Kalyani Publishers 2000
4. Dantyagi Susheela. Fundamentals of Textiles and their care. New Delhi: Orient Longman Limited 1987.

## **SECOND SEMESTER**

### **Multidisciplinary Course.**

### **HSC 107: FUNDAMENTALS OF HOME SCIENCE –II**

**3 Credits**

## **LEARNING OUTCOME:**

The course will help the students to understand the role of Home Science in the development and wellbeing of individuals, family and community. It will acquaint students with the principles of human development, nutrition for adults and lifestyle behaviour.

**Unit-I:** Introduction to Human Development: Meaning and Principles; Factors affecting Growth and Development; Influence of Heredity and Environment.

**Unit-II:** Nutrition for Adults: Reference Man and Woman; Nutritional requirement; Meal planning, factors to be considered while planning a balanced diet. Nutrition for Sports and Athletics.

**Unit-III:** Meaning and categories of lifestyle behaviour; the basis of lifestyle; eating, water, air, sun, physical exercise, rest, abstinence from toxics and good mental attitude, lifestyle and health; Nature of sustainable lifestyle.

## **RECOMMENDED BOOKS:**

1. Berk. L. E. (2006) Child Development, New Delhi Prentice Hall
2. Hurlock, Elizabeth. B (2004): Developmental Psychology: A lifespan approach; Tata McGraw Hill Publication Com. Ltd. New Delhi
3. Sumati, H.R and Rajagopal, MV (2001) Fundamentals of Food and Nutrition. New Age International Pvt. Ltd New Delhi
4. Srilakshmi B. (2001) Food Science, New Age International Pvt. Ltd New Delhi
5. Ray G.L (2018) Extension Communication and Management. Kalyani Publishers. New Delhi
6. Dahama O.P & Bhatnagar O.P (2012). Education and Communication for Development.

**THIRD SEMESTER**  
**Disciplinary Major**  
**HSC 200: TEXTILES -I**

**4 Credits (L-3 + P-1)**

**LEARNING OUTCOME:**

Impart knowledge about the study of properties, manufacture and production of different types of fibres which are used for making various textiles materials like woven fabrics, knitted fabrics, lace and non-woven fabrics. Studies the production process of textile fabrics from yarn manufacturing to weaving and then the application of finishes to the finished products, care and maintenance of different fibres according to their properties.

**UNIT - I: Introduction to Textiles**

- Definition and classification of fibers
- Primary and secondary properties of fibers

**UNIT – II: Manufacture of Different Fibres**

- Manufacture and properties of cotton, linen, silk, wool, viscose, acetate, polyester (Dacron) and acrylic, rayon and nylon

**UNIT - III: Introduction to yarns**

- Introduction to yarns
- Yarn making - Filament and staple yarns
- Yarn properties, Direction of twist, Degree of balance, Yarn number
- Classification of yarns: Simple, Novelty/Fancy/Complex, Textured yarns

**UNIT – IV: Construction of Fabric**

- Weaving- terminology, description and working of loom.
- Different types of weaves – Plain weaves & Decorative weaves
- Count of cloth – its importance in the balance construction of cloth
- Knitting: definition – warp and weft knitting
- Other methods of fabric construction: felting, bonding, braiding, lace making.

**RECOMMENDED BOOKS:**

1. Gupta Sushma, Neeru Garg & Renu Saini. Text Book of Clothing, Textiles and Laundry. Delhi: Kalyani Publishers. 2018.
2. Dantyagi Susheela. Fundamentals of Textiles and their Care. New Delhi: Orient Longman Limited.1987.

3. Singh K.V.P. Introduction to Textiles. New Delhi: Kalyani Publishers 2006
4. Deulkar, D. Household textiles and their care. New Delhi: Atmaran and Sons 1967.
5. Hollen Norma & Jan Saddler. Textiles New York: Mac Million Publishing Company 1986.
6. Gupta Sushma, Neeru Garg & Renu Saini. Text Book of Clothing and Textiles. Delhi: Kalyani Publishers 2004.

### **PRACTICALS:**

1. Identification of fibers: microscopic observation, burning test & chemical test
2. Study of size labels, symbols and usage of care labels in Ready-made garments.
3. Study of basic weaves – Plain, Twill & Satin weave
4. Thread count and balance
5. Visit to Handloom Industry/Sericulture

**THIRD SEMESTER**  
**Disciplinary Major**  
**HSC 201: NUTRITION AND DIETETICS**

**4 Credits (L-3 + P-1)**

### **LEARNING OUTCOME:**

Nutrition is an important indicator of health. In this paper, the students will learn various nutritional problems, and indicators of health, they will be introduced to therapeutic nutrition and assessment techniques that are used to study nutritional status.

**Unit I:** Nutritional Problems of Public Health- PEM, low birth weight, Iodine deficiency disorders, nutritional anaemia; causes, prevalence, prevention.

**Unit II:** Indicators of mother and Child health care- maternal mortality rate, infant mortality rate, neonatal mortality rate, perinatal mortality rate, child survival index. Factors affecting, preventive measures.

**Unit III:** Assessment of nutritional Status- anthropometry, dietary assessment, clinical examination. Role of Dietitians- duties of dietitians, diet counselling.

**Unit IV:** Diet Therapy- Factors to be considered in planning therapeutic diets, different ways of diet modification; routine hospital diets; special feeding methods – tube feeding and parenteral feeding, pre and post - operative diet. Nutrition for sports and athletes.

### **RECOMMENDED BOOKS:**

1. Srilakshmi B, Dietetics; New Age International (P) Ltd.
2. Swaminathan M. Principles of Nutrition and Dietetics: The Bangalore Printing and Publishing Co. Ltd.

3. Anita FP and Abraham Phillip, Clinical Dietetic and Nutrition: Oxford University Press.
4. Shubhangini A Joshi, Nutrition and Dietetics: Tata Mc Graw- Hill Publishing Co. Ltd.
5. Robinson H Corinne and Lawler R Marilyn, Normal and Therapeutic Nutrition: Oxford and IBH Publishing Co. Ltd.
6. Khanna Kamud et al. Department of Food and Nutrition, IHE, Text Book of Nutrition and Dietetics: Elite Publishing House Pvt Ltd.

### **PRACTICALS:**

Planning, preparation and calculation of nutritive values of balanced diet for the following:

1. Adult man and woman
2. Pregnancy and lactation
3. School going child
4. Adolescence
5. Elderly

**THIRD SEMESTER**  
**Disciplinary Minor**  
**HSC 202: BIOCHEMISTRY**

**4 Credits (L-3 + P-1)**

### **LEARNING OUTCOME:**

Students will have a knowledge and understand the significances of biochemistry. The classification, structural organization, synthesis and metabolism of proteins, lipids, nucleic acids, and carbohydrates and their role in metabolic pathways. The different type and functions of enzyme in our physiological processes. They will be able to identify the commercial application of enzymes. Students will also be able to explain structure and function of nucleic acids that constitutes the biological structure of cell.

**UNIT- I:** Historical background, definition and scope of Biochemistry. Carbohydrates – Definition, classification, structure, properties and biological significances of carbohydrates. Lipids – Definition, classification and properties of lipids; saturated and unsaturated fatty acids; essential fatty acids; biological importance of lipids.

**UNIT- II:** Proteins – Definition, classification, structure, properties and functions of proteins; Classification of amino acids; essential and non-essential amino acids

**UNIT- III:** Enzymes – Definition, types and classification of enzymes; definition and types of coenzyme; specificity of enzyme; isozyme; factors affecting enzyme action; enzyme inhibition.

**UNIT- IV:** Intermediary metabolism – TCA cycle. Gluconeogenesis; glycogenesis; glycolysis; glycogenolysis; Elementary knowledge of protein biosynthesis; Nucleic

acids – Types, composition, structure, properties, replication of DNA; different types of RNA and their significances.

#### **RECOMMENDED BOOKS:**

1. Rao, A.R(1984). Text Book of Biochemistry; Fourth Edition, L.K & S. Publishers, Tanuku
2. Trehan, K. (1990). Biochemistry: second Edition, Wiley Eastern Limited, New Delhi
3. Sastry, K.Y. (2003). Animal Physiology and Biochemistry. First Edition, Rastogi Publications, Shivaji Road, Meerut, India
4. Lehninger, A.L. (1984). Biochemistry, Second Edition, Reprinted, Kalyani Publishers, New Delhi- Ludhiana.
5. Singh, H.R. (1993). Animal Physiology and Related Biochemistry. Fifth Edition, Published by Shoban Lal Nagin Chand & Co, Jalandar, Punjab, India.
6. Jain, J.L. (2002). Fundamentals of Biochemistry. Fifth Revised & Enlarge Edition, S. Chand & Company Limited, Ram Nagar, New Delhi.

#### **PRACTICALS:**

1. Carbohydrates – Identification test for monosaccharides, disaccharides and polysaccharides
  2. Proteins – Identification test for different amino acids.
  3. Lipids – General test for lipids.
  4. Separation of amino acids by paper chromatography
4. Sekhri S., (2011) Textbook of Fabric Science: Fundamentals to Finishing, PHI Learning, Delhi
  5. Premarathy Seetharman, Parveen Pannu. Interior Design and Decoration CBS
  6. Shivalinga T., (2005) Fundamentals of Management”. Vrinda Publication ltd, New Delhi

**FOURTH SEMESTER**  
**Disciplinary Major**  
**HSC 203: HUMAN DEVELOPMENT – CHILDHOOD**  
**4 Credits (L-3 + P-1)**

#### **LEARNING OUTCOME:**

This course aims to develop an understanding of the basic concepts in human development. Students will become acquainted with the developmental stages and gain an understanding of growth and development from the prenatal period to late childhood.

#### **UNIT- I: Introduction to Human Development and Prenatal Period**

- Introduction to human development - Meaning and Principles, factors affecting growth and development; influences of heredity and environment.
- Prenatal Period - Courses of pre-natal development; overview of birth process and complications; conditions affecting pre-natal development.

### **UNIT- II: Infancy**

- Developmental tasks of infancy
- Physical development
- social development
- emotional development
- personality development

### **UNIT- III: Early childhood**

- Developmental tasks of early childhood
- Physical development
- Social development
- Emotional development
- Personality development

### **UNIT –IV: Late childhood**

- Developmental tasks of late childhood
- Physical development
- Social development
- Emotional development
- Personality development

### **RECOMMENDED BOOKS:**

1. Berk, L.E. (2006). Child Development. New Delhi: Prentice Hall
2. Hurlock, Elizabeth. B. (2004). Developmental Psychology: A Life-Span Approach. Tata McGraw Hill Publication Com. Ltd. New Delhi.
3. Hurlock, Elizabeth. B. (2001). Child Development. Tata McGraw Hill Publication Com. Ltd. New Delhi
4. Papalia, Olds and Feldman. (2004). Human Development. Tata McGraw Hill Edition, New Delhi.
5. Santrock, John. W. (2008). Child development-. Tata McGraw-Hill Publishing Company.
6. Feldman Robert, S. and Babu Nandita (2018). Development Across the Lifespan, Eight Edition. Pearson India Education Services Pvt. Ltd.
7. Devadas, Rajammal. P. and Jaya, N. (1994): A textbook on Child Development. Mac Millan India Limited. Delhi.

### **PRACTICALS:**

1. Preparation of record book on sequence of motor development in infancy.

2. Sociometry test
3. Intelligence Test

**FOURTH SEMESTER**  
**Disciplinary Major**  
**HSC 204: HOUSEHOLD EQUIPMENT AND CONSUMER ECONOMICS**  
**4 Credits (L-3 + P-1)**

**LEARNING OUTCOME:**

Understanding home equipment, design their use and effect on work and body postures for better choices and care. Basic physics related to home equipment. In light of this they study the working of various home equipment. Knowing consumer rights, responsibilities, problems and laws to play a wiser role

**UNIT –I: INTRODUCTION** – Meaning and importance of equipment, classification- electrical and non- electrical. Wiring system, types of circuits, measurements of electricity, meaning of volt, watt, unit, Ohms.

**UNIT –II: ELECTRICAL APPLIANCES** – Working mechanism of appliances – refrigerators, mixer, food processor, washing machine. Factors to be considered in selection of major appliances, care and maintenance.

**UNIT- III: CONSUMER ECONOMICS** – Meaning, importance and role of consumer economics in family welfare. Demand and supply., characteristics of consumer buyer behavior, factors influencing buyer behavior

**UNIT IV: MALPRACTICES AND CONSUMER PROTECTION-** Problems of consumer in the market, rights and responsibilities of consumers, consumer protection measures, Consumer Protection Act (CPA), consumer redressal forum.

**RECOMMENDED BOOKS:**

1. Elizabeth B Goldsmith, “Consumer Economics Issues and Behaviour,” Published by Routledge Inform UK Limited; an Informal company.
2. Premlatta Mullick, (2007) Text Book of Home Science, Kalyani Publishers
3. Gupta, C.B, Nair, R. N (2004), Marketing Management, Sultan Chand and Son, New Delhi
4. Suja Nair 9 2002), Consumer Behaviour, Sultan Chand & Sons, New Delhi
5. Home Management by Educational Planning Group.

**PRACTICALS:**

1. Meter reading
2. Market survey to identify brands of suggested household items and find out mark of quality on



them, price and special features.

3. Develop standards to protect consumers in the light of Consumer Protection Act.
4. Demonstration on adulteration and malpractices existing in the market.

**FOURTH SEMESTER**  
**Disciplinary Minor**  
**HSC 205: PHYSIOLOGY**

**4 Credits (L-3 + P-1)**

**LEARNING OUTCOME:**

Students will have a knowledge in organ systems function and cellular functions. They will be able to integrate physiology from the cellular and molecular level to the organ system and organismic level of organization. Students will understand the role of molecules, cells, tissues, organs, and organ systems (endocrine, nervous, muscular and immune systems etc.) in human health and disease. They will understand the functioning of a living organism and its component parts. They will understand how and why the body functions the way it does, and what happens when it does not function properly

**UNIT- I:** Cardio-vascular system -Blood and its composition; blood groups; coagulation of blood; Structure and functions of heart; heart rate; cardiac cycle; blood pressure and its regulation; circulation of blood; blood transfusion.

**UNIT- II:** Gastro-intestinal system - Anatomy of gastrointestinal tract; digestion and absorption of foods; role of saliva, gastric juice and pancreatic juice in digestion. Excretory system- Structure and functions of kidney; formation of Urine.

**UNIT- III:** Nervous system- Structure of nerve cells, transmission of nerve impulse through the synapse; central and peripheral nervous system. Muscular system- Structure of skeletal, cardiac and smooth muscles; mechanism of muscle contraction; chemical change during muscle contraction. Respiratory system - Structure of lungs; mechanism of respiration and its regulations; oxygen and carbon dioxide transport in blood; respiratory quotient.

**UNIT- IV:** Endocrine system -Various endocrine glands and their secretion in man; Biological role of hormones of different endocrine glands. Pheromones- definition, type and functions of pheromones.

**RECOMMENDED BOOKS:**

1. Verma, P.S and Agarwal, V.K (1989). Animal Physiology and Ecology. Fourth Edition, B.S. Tyagi. S. Chand & Company Limited, Ram Nagar, New Delhi.
2. Sastry, K.V (2003). Animal Physiology and Biochemistry (First Edition, Rastogi Publications, Shivaji Road, Meerut, India

3. Rastogi, S.C (2001) Essentials of Animal Physiology, Third Edition, New Age International(P) Limited Publishers, New Delhi
4. Burger, H.G., et al (2001) Endocrinology. Fourth Edition, Vol III. W.B Saunders Company Philadelphia London, New York.
5. Rastogi, S, C (2001) Cell and Molecular Biology, Reprint, New Age International(P) Limited Publishers, Ansari Road, Daryaganj, New Delhi.
6. Singh, H.R (1993). Animal Physiology and Related Biochemistry. Fifth Edition. Published by Shoban Lal Nagin Chand & Co, Jalandhar, Punjab, India.

### **PRACTICALS:**

1. Estimation of haemoglobin
2. Blood group typing
3. Preparation of Haemin crystals

**FIFTH SEMESTER**  
**Disciplinary Major**  
**HSC 300: GARMENT CONSTRUCTION – I**  
**4 Credits (L-3 + P-1)**

### **LEARNING OUTCOME:**

Explains the preparation of fabrics before it is constructed into a garment which includes elements and principles of designs, developing a design through drafting, pattern making and draping. Basic hand stitches and seams that are an important part in garment construction are also included.

#### **UNIT – I: Fabric preparation & equipment and tools for sewing**

- Preparation of fabric before cutting
- Pattern layout, pinning, marking and cutting
- Equipment and tools for sewing – measuring, drafting, pinning, marking, cutting, and sewing
- Sewing machine: parts and functions, common defects in sewing machine and their remedies, care and maintenance.

#### **UNIT – II: Elements & Principles of design**

- Elements of design – Colours, Line, Form or shape and space, Light, Pattern, Texture and its application to garment design

- Principles of design – Harmony or unity, Balance, Rhythm, Proportion, Emphasis and its application to garment

### **UNIT – III: Developing a design**

- Drafting – advantages and disadvantages
- Pattern making – principles, pattern making terminology, advantages and disadvantages
- Draping – advantages and disadvantages

### **UNIT-IV: Basic stitches and seams**

- Basic hand stitches
- Seam and seam finishes
- Types of seams

### **RECOMMENDED BOOKS:**

1. Frings Stephen Gini. Fashion- From concept to consumer, Delhi: Pearson Education, 2002
2. Armstrong Helen Joseph. Pattern making for Fashion Design, Delhi: Pearson Education 2005
3. G.J. Sumathi. Elements of Fashion and Apparel Design. New Delhi: New Age International(P) Limited 2002

### **PRACTICALS:**

1. Sewing machine: parts and their functions, basic operations, machining along straight, curve, corners, spiral and reverse.
2. Colours – Colour wheel, Value chart, Intensity chart, Gray scale.
3. Study and preparing samples of: embroidery stitches, basic hand stitches, seams, fullness and darts.
4. Adaptation of child’s bodice block, drafting and construction of baby feeders/baby dress.
5. Adaptation of adult basic bodice block and skirt.

## **FIFTH SEMESTER**

### **Disciplinary Major**

### **HSC 301: EARLY CHILDHOOD CARE AND EDUCATION**

**4 Credits (L-3 + P-1)**

### **LEARNING OUTCOME:**

This course aims to develop an understanding of the importance of early childhood years and the significance of early childhood care and education during this critical period. Students will also acquire the knowledge and skills required to work with pre-school children and to manage and organise preschool centres providing opportunity for self-employment

### **UNIT – I: Introduction to ECCE and Play**

- Introduction to Early Childhood Care and Education- Meaning, aims and objectives of ECCE. Significance of ECCE. Importance of early childhood years.
- Play- Meaning and values of play, Types of play, Factors affecting play.

### **UNIT – II: Language Development and Child Rearing Practices**

- Language development - Language skills - pre-reading and pre-writing skills. Factors influencing language development. Fostering language development, speech defects.
- Child rearing practices - Parenting styles, Ways of disciplining.

### **UNIT – III: Organisation of Pre-school Centres and Creativity**

- Organisation of pre-school centres - Building and other physical facilities, Pre-School Staff and size of the class, Equipment, Curriculum and pre-school programme, Home-school relations.
- Creativity - Meaning and characteristics of creativity, Expressions of creativity in early childhood, Developing creativity in children.

### **UNIT – IV: Contributions of Educational Philosophers**

- Jean-Jacques Rousseau
- Friedrich Froebel
- Maria Montessori
- Rabindranath Tagore
- Mahatma Gandhi.

### **RECOMMENDED BOOKS:**

1. Aggarwal, J.C. (2000). History & philosophy of Pre-primary and Nursery Education. Doaba House, New Delhi.
2. Choudhury, A & Choudhury, R. (2002) Pre-school Children-Development, Care and Education. New Age International (P) Limited, Publishers, New Delhi.
3. Hurlock, Elizabeth. B. (2001). Child development. Tata McGraw Hill Publishing Company Limited. New Delhi.
4. Mohanty, J. and Mohanty, B. (2002). Early Childhood Care and Education (ECCE). Deep & Deep Publications, New Delhi.
5. Singh, B. (2011). Pre-school Education, APH Publishing Corporation, 5, Ansari Road, New Delhi.
6. Sen Gupta, M. (2009). Early Childhood Care and Education. PHI Learning Private Limited, New Delhi.

### **PRACTICALS:**

1. Observation of a pre-school child in relation to his/her all round development.

2. Observation of a preschool centre / nursery school.
3. Development of developmentally appropriate play materials for preschool children using locally available materials.

**FIFTH SEMESTER**  
**Disciplinary Major**  
**HSC 302: CHILD PSYCHOLOGY**

**4 Credits (L-3 + P-1)**

**LEARNING OUTCOME:**

The student will understand the nature and foundation of human development. They will acquire knowledge of physical, social emotional, cognitive and behavioural changes at every developmental stages. They will understand how theories explain child development. Provide an insight to child distinctive characteristics.

**UNIT – I Introduction to child psychology:**

Definitions and Scope,  
 Research Methods of child psychology - Longitudinal and cross-sectional method.  
 Theories of child psychology – Freud’s Psychosexual theory, Erikson’s Psychosocial theory, Piaget’s Cognitive development theory.

**UNIT – II Personality:**

Meaning, Traits and Type,  
 Determinant of personality development  
 Assessment of Personality.  
 Learning -Meaning, Factors related to learning,  
 Classical conditioning, Operant conditioning, cognitive learning, social learning and observation.  
 Motivation- definition, importance of motivation in learning.

**UNIT-111 Intelligence:**

Definition, Different theories of intelligence,  
 Intelligence Quotient, meaning, classification of IQ  
 Intelligence test  
 Uses of intelligence test.  
 Counselling: Meaning, Process,  
 Different technique in Counselling.

**UNIT – IV Children with disabilities:**

Mental illness in Children; signs, causes, types, treatment.  
 Mental disabilities; Definitions, causes, Characteristics, management.  
 Educationally Backward children; Meaning, types, causes, educational guidance

of backward children.

### **RECOMMENDED BOOKS:**

1. J.W Santrock (1996) Child Development, Seventh Edition, Braun and Bench Mark: London
2. . Developmental Psychology A Life-span approach, Fifth Edition, Tata McGraw – Hill Edition
3. Thomson, G.G (1996) Child Development, Surjeet Publication, 7-K, Kolhapur Road, New Delhi -110007
4. Mangal, S.K, Mangal S.K, Shubhra (2019) Psychology of Learning and Development, PHI Learning Pvt Ltd.
5. Gelso, C.J., & Fretz, B.R (1995). Counselling psychology. Bangalore: Prism Books Pvt Ltd.
6. Mangal, S. K. (2007). Exceptional children: An introduction to special education. New Delhi: Prentice Hall of India
7. Early Detection of Disabilities and persons with disabilities in the community. New Delhi: Engage publications. Morgan, Clifford T, King Richard A, Weisz, John R, Schopler John. (1993).
8. Brief Introduction to Psychology- Tata Mc Graw Hill,
9. Fundamentals of Educational Psychology. Pearson

### **PRACTICALS:**

1. Observations of a child/ Case study.
2. Visits to organizations working with children with disabilities.
3. Observations of Children with Disabilities/ Case profile of child with disability

**FIFTH SEMESTER**  
**Disciplinary Minor**  
**HSC 303: EXTENSION EDUCATION**

**4 Credits (L-3 + P-1)**

### **LEARNING OUTCOME:**

The course aims to impart knowledge to students as to how to teach adult, specially rural housewives. The course aims to teach students about Rural living and psychology, how to plan programmes so that they may impart knowledge of Home Science without facing problems when they go to teach in the villages.

**UNIT – I:** Extension Education: Definition, meaning, importance and scope; Principles of Extension Education; Leadership in Extension Education; Meaning, types of Leadership.

**UNIT- II:** Role of Home Science in Extension Education; History and development of Home Science extension and its scope; Role of Home Science extension in rural development.

**UNIT- III:** Methods of Teaching in Extension Education; Individual Method: Farm and Home visits, Office calls, Telephone calls, Personal letters; Group Method: Method demonstration and Result demonstration, Lecture, Seminars and Workshop; Mass Methods: Leaflets, Circular letters, Radio, T.V., Bulletins, Newspapers.

**UNIT-IV:** Teaching learning process: Concepts and characteristics of learning; Steps in Extension Teaching learning process; Learning situation in Extension Education; Criteria for effective learning; Factors affecting learning.

**RECOMMENDED BOOKS:**

1. Directorate of Extension. Extension Education in Community Development, New Delhi; Krishi Bhavan GDI, 1979
2. Dahama, O.P. Extension and Rural Welfare. Agra 282003: Ram Prasad and Sons, 1989
3. Reddy, AA. Extension Education. Bapatla AP 522101: Sri Laxman, 2000
4. Nisha, M. Understanding Extension Education. Delhi: Kalpaz Publication, 2006
5. Supe, SV. An Introduction to Extension Education, New Delhi: Oxford & Publishing Co.Pvt Ltd 1983
6. Khandai, Hemant & Kalika Yadav. Extension Education. New Delhi: APH Publishing Corporation 2011

**PRACTICALS:**

- 1) Planning and evaluating a particular programme concerning any Home Science extension programme.
- 2) Prepare a report within one thousand words on any one of the following: Women Empowerment, Child and Maternal health issues, environmental pollution

**SIXTH SEMESTER**

**Disciplinary Major**

**H.SC 304: HUMAN DEVELOPMENT – ADOLESCENCE AND ADULTHOOD**

**4 Credits (L-3 + P-1)**

**LEARNING OUTCOME:**

This course aims to develop an awareness of the basic principles and processes of human development and guidance for optimal development and adjustment from adolescence to late adulthood. It acquaints the students to understand the issues faced and adjustments required from adolescence to late adulthood.

**UNIT –I: Adolescence**

- Developmental tasks

- Physical and social development
- Emotional and personality development
- Problems of adolescence – drugs abuse, alcohol abuse and school drop-out

#### **UNIT –II: Early Adulthood**

- Developmental tasks
- Plateau in physical development
- Social adjustments and relationships
- Marital adjustments
- Parenthood
- Selection of a vocation

#### **UNIT –III: Middle adulthood**

- Developmental tasks
- Physical changes
- Social adjustments
- Relationship with maturing children
- Relationship with aging parents

#### **UNIT -IV: Late adulthood**

- Developmental tasks
- Physical changes and Health;
- Memory changes;
- Retirement

#### **RECOMMENDED BOOKS:**

1. Berk, Laura E. (2007) Development through the Life Span. Dorling Kindersley (India) Pvt Ltd Delhi.
2. Papalia, Olds, Feldman. (2004): Human Development: Tata McGraw Hill Edition. New Delhi
3. Kapadia K.M: Marriage and Family, University Press, New Delhi
4. Santrock, J.W (2006): Child Development (7<sup>th</sup> Edition) : Brown and Benchmark. London.
5. Santrock John W. (2011), Adolescence Tata McGraw Hill Publishing Co Ltd, New Delhi.
6. Santrock John W. (2008) Life Span development. Tata McGraw Hill Publishing Co Ltd. New Delhi
7. Hurlock Elizabeth (2004) Developmental Psychology. Tata McGraw Hill Publishing Com. Ltd. New Delhi

#### **PRACTICALS:**

1. Visit to old age home.
2. Report writing on visit to old age home.
3. Personality test



**SIXTH SEMESTER**  
**Disciplinary Major**  
**HSC 305: DIETETICS**

**4 Credits (L-3 + P-1)**

**COURSE OUTCOME:**

The students after completion of this course will be able to plan and prepare therapeutic diets for different illnesses and will be able to help the patients who are in need of modified diets.

**Unit I:** Diet management in fever and infection – types of fever, effect of fever on metabolism, diet modification, effect of infection on body mechanism, effect of infection on nutrients. Diet modification in fever.

Diet management in gastrointestinal disorders – diarrhoea, constipation, peptic ulcer, causes, symptoms dietetic management.

**Unit II:** Diet in Diabetes Mellitus- classification, causes, symptoms, diagnosis, complication and dietetic management.

Diet in obesity and underweight- causes, dietetic management, complications; assessment of obesity.

**Unit III:** Diet in diseases of kidneys- acute and chronic glomerulonephritis, acute and chronic renal failure, renal calculi; causes, symptoms and dietetic management.

Diet in cardiovascular diseases- coronary heart disease, atherosclerosis, hypertension; risk factors, symptoms and dietetic management.

**Unit IV:** Diet in diseases of liver- jaundice, cirrhosis of liver, hepatic coma; causes, symptoms, dietetic management.

Diet in cancer- risk factors, changes in metabolism, nutritional problems of cancer therapy.

**RECOMMENDED BOOKS:**

1. Srilakshmi B, Dietetics; New Age International (P) Ltd.
2. Swaminathan M. Principles of Nutrition and Dietetics: The Bangalore Printing and Publishing Co. Ltd.
3. Anita FP and Abraham Phillip, Clinical Dietetic and Nutrition: Oxford University Press.
4. Shubhangini A Joshi, Nutrition and Dietetics: Tata Mc Graw- Hill Publishing Co. Ltd.
5. Robinson H Corinne and Lawler R Marilyn, Normal and Therapeutic Nutrition: Oxford and IBH Publishing Co. Ltd.
6. Khanna Kamud et al. Department of Food and Nutrition, IHE, Text Book of Nutrition and Dietetics: Elite Publishing House Pvt Ltd.

## **PRACTICALS:**

1. Planning diet for fever
2. Planning diet for diarrhoea and constipation
3. Planning diet for diabetes mellitus
4. Planning diet for hypertension
5. Planning diet for kidney diseases
6. Planning diet for jaundice.

## **SIXTH SEMESTER**

### **Disciplinary Major**

### **HSC 306: INTERIOR DESIGN AND FURNISHING, SPACE PLANNING**

**4 Credits (L-3 + P-1)**

## **LEARNING OUTCOME:**

Imparting knowledge pertaining to housing needs, house plans, space planning, selection of site, arrangements of funds which will prepare students to gather courage to construct their own satisfactory houses in future. Students learn application of principles of arts in designing of interiors of a home. Gain knowledge regarding lighting, furniture and furnishings for a house. This knowledge can be used professionally as well as personally.

**UNIT - I: SPACE PLANNING** - Factors determining housing: owning and renting, selection of site. Principles of planning, drawing house plans for various income group- low, middle, high. Kitchen-Types of kitchens, work counters of kitchen

**UNIT –II: ARTS AND DESIGN** –Definition of arts and design, types of design: structural and decorative. Objectives of home furnishing. Elements of arts: line, colour, texture, form, pattern, light, space. Principles of design: proportion, balance, rhythm, emphasis, harmony.

**UNIT –III: FURNITURE AND FURNISHINGS** – Selection of furniture, materials used in construction: wood, cane, metal, plastics, glass, Arrangement of furniture using principles of design, care of furniture. Upholstered furniture. Types of furnishings-curtains and draperies, slip covers, bed linen. Floor coverings- rugs and carpets. Window treatment: selection, valances, cornices, pelmet, swag.

**UNIT –IV: LIGHTING AND COLOUR IN INTERIORS** – Colour system. Colour schemes: related and contrasting colour scheme. Types of lighting-general, task and accent. Lighting for various rooms. Accessories: classification-functional and decorative, selection and placement of accessories. Flower arrangement: types of arrangement for different occasions.

## **RECOMMENDED BOOKS:**

1. Parimalam P. Andal A. Premalatha R, "Interior Decoration" Bookchor.com Bengaluru
2. Asha P George Kurvilla, Anita P George Antony "Interior Design" Pointer Publishers
3. Nikita Mittal, The Key of Interior Design, Standard Book House, Delhi, 110006
4. Choudhari S.N, (2005), Interior Design, Aavishkar Publishers, Jaipur, India
5. Shaw, R.B., (2003) Interiors by Design. Ruland Peters and Small, London, New York
6. Veena Gandotra., Maneesha Shukul, Neerja Jaiswal, "Introduction to Interior Design and Decoration", Dominant Publishers and Distributors, New Delhi, 110002

### **PRACTICALS:**

1. Developing house plans for various groups
2. Allocation of space for various activities using principles of design and colour
3. Designing greeting cards for different occasions.

**SIXTH SEMESTER**  
**Disciplinary Major**  
**HSC 307: TEXTILES-II**

**4 Credits (L-3 + P-1)**

### **LEARNING OUTCOME:**

Help gain an understanding of the different treatment of a fabric after it has been woven into textile materials. Importance of treatment like finishes, dyeing and printing for the enhancement and beautification of the fabric, also care and maintenance of fabric.

#### **UNIT - I: Textile finishes**

- Definition & objectives
- Types of finishes: Singeing, Bleaching, Mercerizing, Sanforizing, Calendering, Tenting, Crabbing, Fulling, Schreinerizing, Moireing, Embossing, Napping, Brushing, Shearing, Weighting, Sizing, Beetling, Glazing, Crease resistance, Crepe, Water proofing, Flame proofing, Moth proofing, Mildew proofing.

#### **UNIT – III: Dyeing of Textiles**

- Classification of dyes - Natural (vegetable, animal, mineral); Synthetic (direct, basic acid, sulphur, mordant, developed, disperse, reactive, pigment)
- Methods of dyeing- stock, yarn, piece, cross, solution, or dope and product dyeing

#### **UNIT-III: Printing of textile**

- Difference between dyeing and printing
- Methods of printing
- Dyes used for printing

- Types of printing: block, screen, stencil, tie and dye, direct, roller, discharge, resist, pigment, duplex, transfer, photo, flocking.

#### **UNIT - IV: Care and maintenance of fabric**

- Laundry aids- soaps, detergents, Blueing, Bleaching, Stiffening agents
- Method of cleaning – Stain removal, General rules for stain removal, classification of stains, animal, vegetable, grease, dye and mineral stain.

#### **RECOMMENDED BOOKS:**

1. Gupta Sushma, Neeru Garg & Renu Saini. Text Book of Clothing, Textiles and Laundry. Delhi: Kalyani Publishers. 2018.
2. Dantiyagi Susheela. Fundamentals of Textiles and their Care. New Delhi: Orient Longman Limited.1987.
3. Singh K.V.P. Introduction to Textiles. New Delhi: Kalyani Publishers 2006
4. Deulkar, D. Household textiles and their care. New Delhi: Atmaran and Sons 1967.
5. Hollen Norma & Jan Saddler. Textiles New York: Mac Million Publishing Company 1986.

#### **PRACTICALS:**

1. Tie and dye
2. Printing-
  - i) Stencil
  - ii) Block
3. Removal of stains.

## **SIXTH SEMESTER**

### **Disciplinary Minor**

#### **HSC 308: EXTENSION EDUCATION AND COMMUNICATION**

**4 Credits (L-3 + P-1)**

#### **LEARNING OUTCOME:**

This course will help the students in various communication skills. This course is necessary for students as they have to give practical knowledge of Home Science in day to day living.

**UNIT- I: Communication: Concept and meaning of communication; Channels of communication; Essentials of communication; Types of communication; Importance of communication in Extension work.**

**UNIT- II: Audio visual aids: Planning, classification and use of audio-visual aids; Audio Aids; Non-projected visual aids; projected visual aids: slides, film-strips, opaque projectors, movie projectors.**

**UNIT- III:** Indigenous communication channels: Introduction, special features of Indigenous communication channels; types of Indigenous channels: folk media, social gatherings, puppets, drama.

**UNIT- IV:** New communication technologies: Introduction; Kinds of new communication technologies: micro-computers, video text, electronic Email, interactive video, teleconferencing, multi-media strategies; computer in extension education.

**RECOMMENDED BOOKS:**

1. Dahama, O.P. Extension and Rural Welfare, Agra: Ram Prasad and Sons, 1989
2. G.L. Ray. Extension Communication and Management. Kolkotta: Kalyani Publishers 1991
3. Kumar, Birendra & B.S Hanora. Extension Education for Human Resource Development. New Delhi: Concept Publishing Company.
4. Dahama, O.P and Bhatnagar, O.P. Education and Communication for Development, New Delhi: Oxford & IBH Publishing Co. (1987)
5. Dubey, V.K and Indira Boshnoi. Extension Education and Communication. New Delhi: New Age International Publishers 2009
6. Pankajam, G. Extension Education Third Dimension of Education. New Delhi: Gyan Publishing House.2000

**PRACTICALS:**

- 1) Planning, preparing and evaluating visual aids of any two of the following: posters, charts, flip books, flash cards, puppets.
- 2) Write a short article related to health and nutrition for conveying messages to the society.

**SEVENTH SEMESTER**  
**Disciplinary Major**  
**HSC 400: FOOD PRESERVATION TECHNOLOGY**  
**4 Credits (L-3 + P-1)**

**LEARNING OUTCOME:**

The students will have the knowledge of the principles and methods of various preservation technology. This will help them in developing ability to start their own small scale food industry.

**UNIT – 1:** Food preservation - Scope and need for food preservation. Principles of food Preservation, methods of Food preservation, preservation by low temperature,

preservation by high temperature, preservation by use of preservatives, preservation by osmotic pressure, preservation by dehydration.

**UNIT – 2:** Fruits and vegetables canning – sorting and grading of fruits and vegetables, preparation of fruits and vegetables for canning, filling and syruling, exhausting (removal of air from the can and its content, lidding and sealing, processing canned fruits and vegetables, cooling and storage.

**UNIT-3:** Fruit juice, squash and syrup- selection of fruits, extraction of juice, deaeration, straining, filtering, clarification, sterilization and preservation, carbonation, concentration of fruit juice.

Making of jams and jellies – role of pectin, methods of making jams and jelly, spoilage of products preserved with sugar.

**UNIT – 4:** Dried fruits and vegetables – methods of drying, treatment before drying, details of drying various fruits and vegetables.

Candied fruits – selection of fruits, process of making candied fruits.

#### **RECOMMENDED BOOKS:**

1. Mirajkar, Mridula, Menon Sreelate. Food Science and Processing Technology. Kanishka Publishers, Distributors, New Delhi.
2. Aylward F. food Technology processing and Laboratory Control. Agrobios (India) Agro House, Jodhpur.
3. Subbulakshmi G, Udipi A Shobha. Food processing and Preservation. New Age International Publishers.
4. Morris TN. Principles of Fruit Preservation- Jam making, canning and drying. Agrobios, Jodhpur.
5. Van Garde J Shirley, Woodburn Margy. Food Preservation and Safety Principles and Practice. Surabhi Publications, Jaipur.

#### **PRACTICALS:**

Preparation of:

1. Jams
2. Jellies
3. Marmalade
4. Candied fruits
5. Pickle

## SEVENTH SEMESTER

### Disciplinary Major

#### HSC 401: ENTREPRENEURSHIP IN HOME SCIENCE

4 Credits (L-3 + P-1)

#### LEARNING OUTCOME:

This course will enable students to master different skills in Entrepreneurship and develop personal creativity. The course will enable students to learn about the different methods of Research studies.

**Unit-I:** Entrepreneurship-Characteristics; Importance; Type and functions of Entrepreneurship; Entrepreneurship at grassroots level.

**Unit-II:** Entrepreneurship through Home Science Education- Introduction; Different aspects of Entrepreneurship in Home Science: Food and Nutrition, Resource Management, Fabric and apparel designing, Human Development.

**Unit-III:** Entrepreneurship to empower women- Motivation, Development of women entrepreneurship; Schemes available to encourage women entrepreneurship.

**Unit-IV:** Methods of Research- Trends in Research in Home Science; Research designs; Types of variables: Discrete and Continuous, Independent and dependent; Selection and preparation of Tools for data collection.

#### RECOMMENDED BOOKS:

1. Rao M.R. (2007). Forward in Developmental Aspects of Entrepreneurship, S. Bhargava Response Books (SAGE) New Delhi
2. Supe S.V. 2017. An Introduction to Extension Education. CBS Publishers Delhi
3. Mondol Sagar 2017. Fundamentals of Agricultural Extension Education. Kayani Publishers Ludhiana
4. Desai Vasant 2011. The Dynamics of Entrepreneurial Development and Management. Himalaya Publishing House, Mumbai

#### PRACTICALS:

1. Visit to a poultry/piggery/farming site. Study, report and evaluation.
2. To Visit and meet One successful entrepreneur in Aizawl. Study, report and evaluation.

## SEVENTH SEMESTER

### Disciplinary Major

#### HSC 402: CHILDREN WITH SPECIAL NEEDS

4 Credits (L-3 + P-1)

#### LEARNING OUTCOME:

This course will enable the students to gain a better understanding of children with special needs. It will acquaint them with the different types and characteristics of children with special needs as well as the challenges and educational needs of these children.

#### UNIT-I: Introduction to Children with Special Needs

- Meaning, Types and Characteristics of children with special needs.
- Needs and rights of children with special needs
- Concept of inclusive education
- Qualities and qualifications of educators for children with special needs.

#### UNIT-II: Definition, Characteristics and educational needs of physically challenged children

- Locomotor disability
- Visually Impaired
- Audio impaired
- Speech impaired.

#### UNIT-IV: Gifted children

- Meaning and definitions of gifted children
- Characteristics and identification of gifted children
- Educational provisions for gifted children

#### UNIT-IV: Behavioural and emotional disorders of childhood

- Anxiety disorders
- Depression.
- Autism disorder in Children
- Attention Deficit Hyperactive disorders

#### RECOMMENDED BOOKS:

1. Mangal, S.K. (2007). Educating Exceptional Children: An Introduction to Special Education. PHI Learning.
2. Hegarty, S & Alur, M (200). Education and Children with Special Needs. From Segregation to inclusion. New Delhi. Sage Publication
3. Singh Mubarak, Education of Children with special needs. Kanishka Publishing House



4. Dash M, Education of Exceptional Children (Edition 2021). Atlantic Publisher Pvt Ltd
5. Chantel Sicile-Kira. What is Autism. Understanding life with Autism or Asperger's. Turner Publishing Company
6. Alan I. Rosenblatt, MD, FAAP. Paul S. Carbone, MD FAAP, Autism Spectrum Disorder: What every Parents needs to know (2023) Tantor Media Inc.
7. Dash Neena, Inclusive Education for Children with Special Needs (2006). Atlantic Publisher

### **PRACTICALS:**

1. Visit to a school for children with special needs.
2. Interaction with educators or parents with special needs.
3. Case study of a child with special needs.

**SEVENTH SEMESTER**  
**Disciplinary Minor**  
**HSC 403: NUTRITIONAL BIOCHEMISTRY**  
**4 Credits (L-3 + P-1)**

### **LEARNING OUTCOME:**

Students will learn the nutrition and healthy diet planning concepts., the importance of nutrition, the elements of nutrients. the deficiencies of nutrition. The digestion, absorption and transports in blood circulation of nutrients, the types and biosynthesis of carbohydrates, proteins, lipids and vitamins. Students will also be able to define the regulation of glycolytic pathway and glucose metabolism as an energy source, associate disorders relating to carbohydrate metabolism, biochemical pathways relevant in nutrient metabolism. Students will know how to solve the causes, mechanisms and effects of diseases by using metabolism information.

**Unit I:** Introduction, Meaning and Importance of Nutritional Biochemistry; **Carbohydrate:** Type, Physical and Chemical properties, Sources, Biological role. Metabolism - Glycolytic pathway & Kreb's cycle, Deficiency diseases, Inborn errors of metabolism. Nutritional aspects of Carbohydrates.

**Unit II: Proteins:** Type, Physical and Chemical properties, Sources, Biological role and Value of protein. Protein metabolism- Protein biosynthesis, Deficiency diseases, Inborn errors of metabolism. Nutritional aspects of proteins. **Lipids:** Type, Physical and Chemical properties, Sources. Biological role. Lipid metabolism -  $\beta$ -oxidation, Lipid based metabolic diseases, Inborn errors of metabolism. Nutritional aspects of lipid.

**Unit III: Nucleic acid:** Composition, Types, Structures, Properties, Functions and Metabolism, Genetic disorders. **Enzymes:** Type, Mechanism of action, Specificity, Factors affecting its action, Application of enzyme in clinical diagnosis.

**Unit IV: Vitamins:** Classification, Characteristics, Role of vitamins in metabolism, Deficiency diseases. **Minerals:** Types, Absorption and role of minerals in metabolism, Minerals deficiency

diseases.

### **RECOMMENDED BOOKS:**

1. Weaver. Food Chemistry Laboratory - 2nd edition. Publisher: CRC Press I, LLC  
Published: 2003
2. Rao,A.R (1984). Text Book of Biochemistry: fourth Edition, L.K & S Publishers, Tanuku
3. Trehan, K (1990) Biochemistry: Second Edition, Wiley Eastern Limited, New Delhi.
4. Sastry, K.Y (2003). Animal Physiology and Biochemistry. First Edition, Rastogi  
Publications, Shivaji Road, Meerut, India
5. Ranjana Mahna & Seema Puri, Kumud Khanna, Sharda Gupta, Santosh Jain Passi, Rama  
Seth. Textbook of Nutrition and Dietetics
6. B Srilakshmi. Food Science 2018
7. David A. Bender. Introduction To Nutrition and Metabolism - 5th edition  
Publisher: CRC Press I, LLC Published: 2014

### **PRACTICALS:**

1. Identification of different type of carbohydrates (monosaccharides,  
disaccharides and polysaccharides) using colour reaction methods.
2. Separation and identification of amino acids by paper chromatography.
3. Qualitative analysis of lipids
4. Extraction of ascorbic acid from food samples
5. Extraction and estimation of carotenoid from green leaves.

**SEVENTH SEMESTER**  
**Disciplinary Minor**  
**HSC 404: RESEARCH METHODOLOGY**

**4 Credits (L-3 + P-1)**

### **LEARNING OUTCOME:**

The course will provide students with basic knowledge about research methodology and the research process. It will also acquaint them with basic statistical measures.

## **UNIT-I: Introduction to Research Methodology**

- Meaning, objectives and significance of Research
- Types of Research
- Research Approaches
- Criteria of good Research

## **UNIT-II: Understanding statistical measures**

- Mean, Median and Mode
- Range, Mean deviation and Standard deviation
- Measures of Skewness and Kurtosis
- Covariance and Karl Pearson's coefficient of correlation

## **UNIT-III: Sampling**

- Meaning of sampling
- Advantages of sampling
- Requisites of a good sampling method
- Probability sampling methods and non-probability sampling methods

## **UNIT-IV: The Research Process**

Defining the Research problem, review of literature, formulation of hypothesis, preparing the research design, determining the sample design, data collection, analysis of data, hypothesis testing, interpretation and report writing

## **RECOMMENDED BOOKS:**

1. Kothari, C.R. (2008). Research Methodology Methods & Techniques. New Age International Publishers.
2. Singh, A.K. (2020). Tests, Measurements and Research Methods in Behavioural Sciences. Bharati Bhawan (Publishers & Distributers).
3. Mangal, S.K., Mangal Shubra (2020). Research Methodology in Behavioural Sciences. Asoke K. Ghosh, PHI Learning Private Limited.
4. Jain, T.R., Aggarwal, S.C., and Rana, R.K. (2008). Basic Statistics for Economists. V. K. Publications.
5. Gupta, S. P. (2009). Statistical Methods. Sultan Chand & Sons.

## **PRACTICALS:**

1. Framing of hypothesis-Null and alternate Hypothesis
2. Preparation of schedule/questionnaire.
3. Preparation of research proposal
4. Study of an article in a journal

**EIGHTH SEMESTER**  
**Disciplinary Major**  
**HSC 405: COMMUNITY DEVELOPMENT**

**4 Credits (L-3 + P-1)**

**LEARNING OUTCOME:**

The course aims to study the key elements that define a community and to identify different community and social issues. It tries to highlight the role of a community organizer as a Home Science student to make community changes.

**Unit-I** Community Development- Meaning and definitions of Community Development; Role of Extension Education in Community, Principles of Community Development; Types of Community Development programmes.

**Unit-II** Rural Sociology in India- Meaning and characteristics. Structure: Tribe, Clan, Class, Family; Basic Institutions: Panchayati Raj, Religious Institutions, Schools, Cooperative society.

**Unit-III** Rural Psychology-Factors determining rural minds; Basic Principles in rural psychology; Adult psychology and learning; Factors in adult learning.

**Unit-IV** Lifestyle Education- Meaning and categories of lifestyle behaviour; the basis of lifestyle: eating, air, water, sun, physical exercise, rest, abstinence from toxics, good mental attitude; Lifestyles of healthier people: Inhabitants of Okinawa, Hunzas of Central Asia, Sherpas of Nepal, Otomi Indians, the British Mediterranean, Eskimos.

**RECOMMENDED BOOKS:**

1. Dahama O. P & Bhatnagar O. P 2012. Education and Communication for Development. Oxford and IBH Publishing co. New Delhi.
2. Supe S.V. 2017. An Introduction to Extension Education. CBS Publishers Delhi
3. Dubey V.K & Indira Bishnoi 2009. Extension Education and Communication. New Age International Delhi
4. Nisha M. 2006 Understanding Extension Education. Kalpaz Publication New Delhi
5. Pankajam G. 2000. Third Dimension of Education. Gyan Publishing House New Delhi

**PRACTICALS:**

- 1) Visit to any Two NGO working for the development of women, youth, and children in your locality. Study, report and evaluation
- 2) Study, report and evaluation of the basic lifestyles and diets of the Mizo Society.

## **EIGHTH SEMESTER**

### **Disciplinary Major**

#### **HSC 406: CATERING MANAGEMENT, FOOD SANITATION AND SAFETY**

**4 Credits (L-3 + P-1)**

#### **COURSE OUTCOME:**

Catering industry has become very popular and since many people run this business without having proper knowledge. It is felt very necessary to equip the students from home science regarding the proper planning and management of catering industry. The students will learn how to manage the catering industry properly and emphasis being placed on the safety and sanitation practices by the caterer.

**UNIT – 1:** Catering management - Specific characteristics of catering. Principles of catering controlling, evaluating.

**UNIT - 2:** Management of resources - money, space, materials, equipment, staff, time, energy, procedures. Food management – Characteristics of food, food purchasing, receiving and storage of food, menu planning

**UNIT - 3:** Financial and personal management – definition and scope, cost control, pricing, accounting. Personnel management – needs of employees, training and development.

**UNIT - 4:** Hygiene, Sanitation and Safety – Environmental hygiene and sanitation – site, water, water disposal. Hygiene in food handling – receiving, storage, preparation and serving. Personal hygiene of food handler. Food borne infection, infestation and food poisoning.

#### **RECOMMENDED BOOKS:**

1. Sethi Mohini and Malhan Surjeet. Catering management – An integrated approach. Wiley Eastern Limited.
2. Negi Jagmohan. Food and Beverage Management and Cost Control. Kanishka Publishers, distributors, New Delhi.
3. Educational planning Group. Food and Nutrition. Arya Publishing House
4. Mahindru S N. Food Safety Concept and Reality. APH Publishing Corporation, 5 Ansari Road, Darya Ganj, New Delhi.
5. Campbell Geoffrey, Wiley Platt and Well Black. Food Science and Technology. A John Wiley and son publication.
6. Vera Claussen Crusius. Quantity Food Management – Principles and Application. Surjeet Publications, Delhi.
7. Mudambi R Sumati, Rao M Shalini. Food science. New Age International Publishers.

#### **PRACTICALS:**

1. Planning a birthday party for a child preparing the dishes to be served.
2. Planning a menu for a wedding ceremony and calculating the quantity of food to be served.
3. Preparing lunch boxes of different budgets.
4. Survey of Catering Services.

**EIGHTH SEMESTER**  
**Disciplinary Major**  
**HSC 407: GERONTOLOGY**

**4 Credits (L-3 + P-1)**

**LEARNING OUTCOME:**

This course will provide students with knowledge of the process of ageing. Students will gain insight on the issues and problems related to ageing. It will also acquaint the students with the various policies and programmes available for the elderly so that they are in a position to provide care and support to the elderly.

**UNIT-1: Introduction to gerontology**

- Meaning and scope of Gerontology
- Dimensions of aging
- Theories of aging – Genetic-Programming theory, Wear-and-Tear theory, Age Stratification theory, Disengagement theory, Activity theory, Continuity theory

**UNIT-II: Physiological, psychological and other problems of the elderly**

- Arthritis, Adult-Onset Diabetes, Hypertension, Osteoporosis
- Dementia, Alzheimer's disease, Depression
- Parkinson's disease
- Elder abuse and neglect

**UNIT-III: Living arrangements and institutional services for the elderly**

- Living at home, Living alone, Living with adult children
- Old age homes
- Daycare centres

**UNIT-IV: Policies and programmes for the Elderly**

- National policies and programmes for the elderly in India
- Role of NGOs in Elderly Care
- Constitutional and legal provisions for the protection of the elderly

**RECOMMENDED BOOKS:**

1. Berk, Laura E. (2007) Development through the Life Span. Dorling Kindersley (India) Pvt Ltd Delhi.
2. Papalia, Olds, Feldman. (2004): Human Development: Tata McGraw Hill Edition. New Delhi
3. Santrock John W. (2008) Life Span development. Tata McGraw Hill Publishing Co Ltd. New Delhi
4. Hurlock Elizabeth (2004) Developmental Psychology. Tata McGraw Hill Publishing Com. Ltd. New Delhi
5. Feldman Robert, S. and Babu Nandita (2018) Development Across the Lifespan, Eight Edition. Pearson India Education Services Pvt. Ltd.
6. Siva Raju, S. 2000: "Ageing in India: An Overview", in 'Gerontological Social Work in India', Murli Desai and Siva Raju (Eds.), Delhi, B. R. Publishing Co
7. Blackburn James A., Dulmus Catherine N., (Eds.). Handbook of Gerontology Evidence Based Approaches to Gerontology. Theory, Practice and Policy. Published by John Wiley & Sons, Inc., Hoboken, New Jersey. 2007
8. Government of India National Policy on Older Persons (1999) Ministry of social justice and empowerment, New Delhi.

### **PRACTICALS:**

1. Observation of Old Age Home/ Day Care Centre and report writing.
2. Seminar presentation on old age home/day care centre
3. Organizing recreational activities for the elderly.

## **EIGHTH SEMESTER**

### **Disciplinary Major**

### **HSC 408: GARMENT CONSTRUCTION – II**

**4 Credits (L-3 + P-1)**

### **LEARNING OUTCOME:**

Importance of understanding the different components of garments, selection of garments for special needs like maternity, lactating and person with disabilities. Study the different figure types for designing and construction of garments and the Fashion centers and designers of the world.

#### **Unit-1: Study of garment components:**

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

#### **Unit-2: Selection of garments for special needs**

- Maternity
- Lactation
- Person with disabilities (PWD)

### **Unit-3: Design & Fit**

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

### **Unit-4: Fashion centres and designers of the world**

- Role of designer
- Fashion centres and leading designers

### **RECOMMENDED BOOKS:**

- Brown, Patty, Rice J., 1998, Ready to Wear Apparel Analysis. Prentice Hall.
- Marshall S G, Jackson H O, Stanley MS, Kefgen M & Specht T, 2009, Individuality in Clothing & Personal Appearance, 6th Edition, Pearson Education, USA.
- Tate S.L., Edwards M.S., 1982, The Complete Book of Fashion Design, Harper and Row Publications, New York.
- Armstrong, H.J., 2009, Pattern Making for Fashion Design, Harper Collins Publishers Inc., New York.
- Stamper, A.A., S. H. Sharp and L.B. Donnell, 1986, Evaluating Apparel Quality, Fairchild Publications, America
- Liechty, E.G., Potterberg, D.N., Rasband, J.A., 2010, Fitting and Pattern Alteration: A Multimethod Approach, Fairchild Publications, New York.

### **PRACTICALS:**

1. Development and identification of seams, plackets, fasteners, edge finishing (binding, facing), pleats and gathers
2. Development of bodice, skirt and various sleeves and collars for self
3. Adaptation of basic skirt block into style variations
4. Construction of skirt for self
5. Construction of skirt top/ kurta for self
6. Study of collections of famous designers



## **EIGHTH SEMESTER**

### **Disciplinary Major**

#### **HSC 409: FAMILY RESOURCE MANAGEMENT**

**4 Credits (L-3 + P-1)**

#### **LEARNING OUTCOME:**

Students will be able to utilize resources in order to achieve maximum goal in the family as well as in other spheres of life.

**UNIT – I:** Resources – Meaning, Definition, Classification of resources, Factors affecting the use of resources, Guides to increasing use of resources, Characteristics of resources

**UNIT – II:** Time Management – Time demands during different stages of family life, Tools in time management: work units, work load, work curve, peak load, rest period, time norms. Factors to consider in making time and activity plans. Steps in making time plans.

**UNIT – III:** Energy Management - Energy demands during different stages of family life, Efforts based on home making activities. Fatigue: types, ways of reducing fatigue. Work simplification: importance, techniques, Principles of body mechanic, Mundel’s classes of change.

**UNIT- IV:** Money Management - Income: types, supplementation of family income, Methods of handling family income. Budgeting: types –advantages and disadvantages of each budget, importance, steps in making a budget, factors affecting budget. Account keeping: importance, systems of account keeping. Credits and savings: importance, types, need for credit, factors affecting credit, guides to wise use of credit

#### **RECOMMENDED BOOKS:**

1. Tami James Moore, Sylvia M Asay,” Family Resource Management “, SAGE Publication Inc
2. Shukul,Maneesha and Gandotra, Veena (2006) ,Home Management and Family Finance, Dominant Publishers
3. Sharma, Niraja, (2006), Home Management, Murari Lal
4. Vibha Sharma, (2005), Modern Home Management, Shree Niwas Publications.
5. Mann,MK, ( 2004 ) Home Management For Indian Families, Kalyani Publications.

#### **PRACTICALS:**

1. Time and activity plans.
2. Record family’s expenditure and prepare a budget.
3. Methods of work simplification which can be carried out in the house.

